

Carpentry & Joinery

Curriculum

General Introduction to the Apprenticeship Programme



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

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Apprenticeship Training Programme

SOLAS, The Training and Employment Authority, has statutory responsibility for the organisation and control of designated apprenticeships through powers conferred on it by the Industrial Training Act, 1967, and the Labour Services Act, 1987 and 2009 the Qualifications (Education and Training) Act, 2012. SOLAS is advised on the development of the apprenticeship system in Ireland by the National Apprenticeship Advisory Committee (NAAC), representing all the relevant social partners and stakeholders. SOLAS has developed the programmes in partnership with Employers, Trade Unions, the Department of Education and Skills and the Colleges of Further Education and Institutes of Technology.

The SOLAS Apprenticeship is a system of employment focused training and education which enables a person to obtain the Skills, Knowledge and Competence required to perform effectively as a craftsman in industry, to respond appropriately to technical change, and to seek progression through further education and training within the National Framework of Qualifications.

SOLAS has responsibility for promoting and overseeing the training and education of all apprentices in the following Crafts:

Construction

- Brick and Stonelaying
- Carpentry and Joinery
- Stone Cutting
- Floor and Wall Tiling*
- Painting and Decorating*
- Plastering
- Plumbing*
- Wood Manufacturing and Finishing

Electrical

- Aircraft Mechanics*
- Electrical*
- Electrical Instrumentation*
- Instrumentation*
- Refrigeration and Air Conditioning*
- Electronic Security Systems*

Printing

- Print Media*

Motor

- Agricultural Mechanics*
- Construction Plant Fitting*
- Heavy Vehicle Mechanics*
- Motor Mechanics*
- Vehicle Body Repairs*

Engineering

- Mechanical Automation and Maintenance Fitting*
- Metal Fabrication
- Sheet Metalworking
- Toolmaking
- Industrial Insulation
- Farriery

* **Please note:** A person wishing to become an apprentice in one of the above crafts marked * must pass a colour vision test approved by SOLAS.

The quality of Irish apprenticeship programmes is recognised internationally. Apprentices participate on a world stage through the World Skills Competition; young people from all over the world gather to compete in the skills of their chosen Craft. SOLAS apprentices have consistently attained high standards in this competition and in previous years have achieved gold, silver and bronze medals as well as diplomas of excellence in their chosen fields.

Apprenticeship Training Programme

Structure and Duration of Apprenticeship

Apprenticeship programmes consist of alternating phases of on-the-job and off-the-job training and education. This model of training allows apprentices to integrate the knowledge and skills acquired during off-the-job training and education with those gained in the on-the-job phases of training. The exposure to changing industrial contexts and the opportunity to further practise and develop the knowledge and skills enables apprentices to achieve the high levels of competence expected of craftspeople in the contemporary workplace.

The structure of apprenticeship programmes ensures that the training and education delivered to apprentices are grounded in the needs of the workplace. The culture of apprenticeship learning and development prepares apprentices to be adaptable, flexible, be self-motivated and manage change. The programme also prepares the apprentice to meet the challenge of future developments in their craft and the workplace by equipping them with the necessary skills, knowledge and competence.

The alternating phases of training generally consist of three off-the-job phases and four on-the-job phases, although differences do occur in some apprenticeships.

The duration of apprenticeship programmes is determined by the training, educational and development requirements of each occupation. However, the normal duration of off-the-job training phases is as follows:

Phase 2 - 21 weeks in a Training Centre

Phase 4 - 11 weeks in an Institute of Technology

Phase 6 - 10 weeks in an Institute of Technology

The on-the-job training takes place with the employer and normally lasts for a minimum of the following periods:

Phase 1 - Minimum of 12 weeks with employer

Phase 3 - Minimum of 26 weeks with employer

Phase 5 - Minimum of 26 weeks with employer

Phase 7 - Minimum of 12 weeks with employer

The apprenticeship process is deemed to be complete when an apprentice has successfully achieved the required qualifying standard, completed all of the alternating on-the-job and off-the-job phases of their apprenticeship and served the appropriate minimum time-frame from the date of registration. On successful completion of their apprenticeship, each apprentice will be awarded an Advanced Certificate by Qualifications Quality Ireland (QQI).

Apprenticeship Training Programme

Revision of Curricula

This curriculum is a revision of the original SOLAS standards-based apprenticeship programme. In 2012, the NAAC initiated a major review of the apprenticeship programme and respective curricula. The aim of this review was to ensure that apprenticeship programmes remained up-to-date, relevant, and met the emerging needs of learners, the workplace and the economy.

Curricula for all apprenticeships are revised within the parameters of the NAAC reports, the National Framework of Qualifications and QQI requirements.

Standards-Based

A national standard is delivered for each craft based on an occupational analysis of that craft and reflects the results of a national survey carried out to establish the current and emerging skills, knowledge and competences required by craftspeople.

Each apprenticeship programme is standards-based, written as learning outcomes and structured in a modular format. All modular learning objectives, unit activity statements and key learning points are based on the National Standards for the craft.

Aims of Programme: to provide –

Learners with the knowledge, skill and competence required to perform effectively as a craftsperson, i.e., highly skilled workers who are able to work autonomously, contribute to a technical team, take personal responsibility for completing projects to relevant quality standards in a timely manner, and interact effectively with colleagues and customers in an industrial setting which is experiencing constant and progressive change.

Industry with craftspeople who have acquired mastery over the underpinning knowledge, skills and competences relevant to their craft. Mastery is demonstrated by the ability of the craftsperson to apply their skill and knowledge in different contexts; to exercise initiative and solve problems by determining possible solutions and judging the appropriateness of different approaches.

Apprentices with the skills, knowledge and competence to enable them to perform as qualified and suitably motivated craftspeople with the potential to progress into supervisory and/or management roles and/or self-employment, both nationally and internationally.

Apprentices with the ability to respond to changes in their craft and the workplace by transferring their knowledge and skills, identifying limits in their knowledge and taking responsibility for addressing their emerging learning requirements.

Apprentices with the necessary knowledge, skills and competence to contribute significantly to the development of the Irish economy and to respond to the emerging needs of the workplace and new techniques and technologies employed in their craft.

Objectives**To provide apprentices with:**

1. The theoretical underpinning and related knowledge necessary for the effective exercise of their craft.
2. Essential knowledge relevant for each field of study and the skills and competences required by the craft, underpinned by integrated and relevant maths, science and technology and appropriate generic skills.
3. Generic skills consisting of:

Fundamental Skills

- Maths and Science
- IT

Conceptual Skills

- Learning to Learn

Personal Skills

- Communications
- Team Leadership
- Health & Safety

4. Specialised knowledge of a broad range of areas and theoretical concepts relevant to their craft and the ability to apply their knowledge, skills and competences to familiar and unfamiliar contexts they encounter.
5. The ability to safely and effectively exercise their craft observing technical and environmental standards and regulations.
6. The ability to diagnose and resolve problems encountered in the course of their work.
7. The ability to take responsibility for planning their own work and ensuring that it adheres to the quality standards of their craft.
8. The ability to communicate and interact effectively and exercise appropriate leadership within the workplace environment.
9. A thorough knowledge of the structure and ethos of their chosen craft.
10. The ability to take responsibility for their own continuing learning in order to keep up to date with new regulations, materials and techniques relevant to their craft.
11. An opportunity to transfer or progress to other awards on the National Framework of Qualifications once they have attained the Advanced Certificate Craft Qualification from the awarding body.

Assessment Overview

Off-the-job

Examination Theory – assessment items of various types which may consist of short answer, multiple-choice or longer structured questions.

Examination Practical/Drawing – skills-based tests lasting up to a day or more done under examination conditions. Technical drawing assessments are carried out for those trades requiring this skill.

Skills Demonstration – graded skills-based tasks completed in a simulated workplace environment.

On-the-job

Skills Demonstration – skills-based tasks done in the workplace under employer supervision and normal working conditions.

Training Approach

Training Approach

Apprenticeship programmes involve directed, work-based and self-directed learning. All on-the-job and off-the-job phases are compulsory.

Off-the-Job Training and Development

The training during the off-the-job period is modular in nature. Modular training is a system in which the training content is divided into independent modules and units of learning.

The curriculum is designed to be delivered in an integrated manner. This integration ensures that practical skills are developed in association with the appropriate technical and personal skills.

Apprentices are required to pass a series of Modular Assessments (tests) throughout their off-the-job training. These consist of practical tests, written knowledge tests and coursework assessments. These assessments are distributed as separate documents.

Off-the-job training takes place in Training Centres, Institutes of Technology and other approved training locations.

On-the-Job Training and Development

This form of training takes place with the employer and provides the apprentice with training and practical experience in the working environment. In addition to further developing the skills and knowledge gained during the off-the-job training phases, the apprentice develops the competence and self-confidence to consistently perform to industrial standards.

The competence of the apprentice is assessed in performing specified tasks against pre-set criteria laid out in the on-the-job training documentation. Portfolios are used to record evidence of this achievement and maintain reflective diaries.

Assessment and Skill Codes

Assessment Codes: to indicate how each unit learning outcome is to be assessed:

T = Theory

PW = Project Work

P = Practical

SD = Skills Demonstration (on-the-job)

D = Drawing

Skills Codes: to indicate which skill(s) each KLP addresses:

Core Skills

TK = Technical Knowledge

Sk = Practical skill

Generic Skills

Fundamental Skills

M = Maths

H = Hazards associated with task

Sc = Science

IT = Information Technology

H&S = Health & Safety

D = Drawing

Personal Skills¹

TW = Teamworking

COM = Communications

Conceptual Skills

LL = Learning to Learn

PS = Problem Solving

¹ (current PS code used under Conceptual Skills)

Training Approach

Assessment Model and Awards

SOLAS is committed to the fair and consistent assessment of apprentices and to the application of standards-based assessment systems.

Throughout the period of apprenticeship, each apprentice undergoes a range of assessments to establish competence, monitor progress and identify areas requiring additional skill development.

Assessment Codes and Skill Codes are displayed on page 11.

Off-the-Job Modular Assessment

Modular Assessment is carried out during the off-the-job training phases. It involves a range of assessment techniques identified for each individual craft.

The Assessment Programme for each phase is implemented by the off-the-job training providers.

Under current legislation, an apprentice is allowed three attempts to reach the minimum qualifying standard in each off-the-job assessment. If the apprentice fails to reach the minimum qualifying standard after three attempts, the apprentice's apprenticeship will be terminated. (Rule 8, SI 168 of 1997, Labour Services Act, 1987 – Apprentice Rules 1997). *Apprentices may appeal the termination of their apprenticeship. This appeal is made to the National Apprenticeship Appeals Committee.* If an apprentice does not achieve the required standard for a particular craft, SOLAS will not allow a further registration application from the apprentice for the same craft.

On-the-Job Competence Assessment

Competence Assessment is carried out during the on-the-job training phases. Competence is defined as the application of skills, knowledge and attitudes in order to perform tasks or combinations of tasks to industrial and commercial standards under operational conditions.

The Workplace Assessment is carried out by the workplace supervisor/ assessor. An assessment specification and a detailed workplace assessment checklist are provided in each of the on-the-job phases. As many attempts as is reasonable are allowed in order to achieve the required standard in each assessment.

Training Approach

Assessment Model and Awards
cont'd**Common Modules**

The apprentice is required to complete a number of self-paced Induction Units during their training period. These modules are made available to the apprentice in e-learning, CD-ROM and paper formats.

During their Apprenticeship the apprentice will undertake self-directed study in the following:

- Health and Safety Awareness
- Introduction to Learning to Learn
- Introduction to Information and Communication Technology (ICT)
- Employment Legislation Awareness
- Environmental Awareness
- Communication
- Team Leadership

The apprentice will complete these induction units during their Induction. Successful completion of these units is a requirement prior to commencement of Phase 2.

Award

This programme leads to an Advanced Certificate Craft. This award will be issued only to those who have passed all the modular assessments in the off-the-job training phases and the required number of competence assessments in the on-the-job training phases.

Craft qualifications are graded as follows:

- Pass
- Pass with Merit
- Pass with Distinction

The overall grade appearing on the Advanced Certificate will be determined in accordance with results achieved in all training phases. These results are weighted according to agreed criteria.

Qualifications Quality Ireland (QQI) has responsibility for determining Award levels on the National Framework of Qualifications (NFQ). The Advanced Certificate Craft is established on the NFQ. All programmes leading to Awards on the NFQ are validated at the appropriate level.

Training Approach

Record System**Off-the-Job**

The Phase Summary Assessment documents for each off-the-job phase are completed by the relevant training centre, Institute of Technology or approved training provider. The results for each apprentice are recorded on the computerised assessment system.

Both the employer and apprentice are notified by post of the apprentice's assessment results for each off-the-job training phase.

Record System**On-the-Job**

At the end of on-the-job phases 3, 5 and 7 the apprentice's employer sends the completed Phase Assessment Schedule Sheet to the Apprenticeship Manager, your local Education and Training Board (ETB). The assessment results for each apprentice are recorded on the apprenticeship computer management system.

Access, Transfer and Progression

SOLAS is committed to the provision of training programmes that meet the needs of all current and prospective learners. SOLAS recognises that National Policies on Lifelong Learning promote and facilitate open and flexible access, transfer and progression pathways for its apprenticeship programme.

Statement of Entry Requirements**Learner Profile**

The minimum age at which the employment of an apprentice may commence is 16 years of age.

The minimum educational requirements are:

1. Grade D in five subjects in the Department of Education & Skills Junior Certificate Examination or approved equivalent,
- or**
2. The successful completion of an approved Pre-apprenticeship course (4 modules – including 3 core modules in Maths, Science, Technical Drawing – Junior Certificate Level)

In certain crafts, apprenticeship applicants must pass the Ishiara colour vision test.

Equivalence of Qualifications

SOLAS recognises that people may seek to commence apprenticeship, holding qualifications other than those detailed above and equivalences with the Junior Certificate requirements are published in its booklet, *Table of Equivalence of Qualifications for Entry to the Standards-based Apprenticeship in Ireland*¹.

Note:

Certificate titles may change.
Please see the current Directory of Awards. Awards. (These equivalences are under review)

¹ These equivalences are under review

Equivalence of Qualifications

**Table of Equivalence of Qualifications for Entry
to the Standards Based Apprenticeship in Ireland
Apprenticeship Requirements for Entry**

Qualification	Level Required
Preparatory training for Apprenticeship programmes	Full certificate
Junior Certificate	5 grades D's or higher
Leaving Certificate Applied	50 credits or above
Vocational Leaving Certificate	3 grades D's or higher
Leaving Certificate	3 grades D's or higher
FETAC/QQI Level 3 Major Awards	Minimum 6 modules including 3 core – Communication, Mathematics OR Application of Number and Functional Mathematics, Personal Effectiveness OR Personal & Interpersonal Skills
FETAC/QQI Level 4 Major Awards	Minimum 5 modules
FETAC/QQI Level 5 Major Awards	Minimum 5 modules

Note: The qualification used for entry to an apprenticeship programme must be from one specific programme.

**A Provisional Guide to Comparing Qualifications in the UK and Ireland
National Qualifications Framework for England and Northern Ireland (NQFENI)**

Qualification	Level Required
GCSE	5 grades at level E or above (Level 1)
NVQ Level 1	Full certificate (Level 1 on NQFENI)
Level 1 Certificate Also includes: ESOL skills for life, Foundation Diplomas (England), Functional skills Level 1 (England) (English, Mathematics & ICT), Essential & Key Skills Qualifications (NI)	Full certificate (Level 1 on NQFENI)

Statement of Entry Requirements
cont'd**Requests for Recognition of Prior Learning for entry to the programme**

An applicant who wishes to have their other certified or non-certified learning considered for recognition for entry to apprenticeship should initially apply to their Apprenticeship Manager, your local Education and Training Board (ETB).

Requests for exemption from part of the programme

An apprentice who wishes to have their other certified or non-certified learning considered for an exemption from part of their apprenticeship programme should initially apply to their Apprenticeship Manager, your local Education and Training Board (ETB).

Documentation

An applicant will be required to support their application with relevant documented evidence:

- The portfolio of evidence will normally contain a description of the content of the training or education course(s) previously undertaken
- A certificate of evidence will contain a description of the content (course syllabus) of the training or education course(s) previously undertaken.
- A certificate confirming the applicant's successful completion of the course should be included.
- Evidence of work experience should also be included where relevant
- In cases where it is not possible for SOLAS to make a clear determination of the applicant's skills, knowledge and competence against the known standard, the applicant will be invited to sit composite practical and theoretical assessments.

The purpose of the documented evidence is to allow the learning which has taken place previously to be mapped against the entry requirements or the learning outcomes of the phase of the programme for which an exemption is being sought.

The responsibility for the compilation and submission of the documented evidence rests with the applicant. Your local Education and Training Board (ETB) Senior Training Advisor [STA] or Authorised Officer [AO] provide guidance to applicants on the appropriate documentation required.

Foreign Qualifications

In the case of applicants with foreign qualifications, entry into the Apprenticeship Programme will be determined by SOLAS upon receipt of a 'statement of comparability' of the applicants' awards provided by QQI. In cases where it is not possible for SOLAS to make a clear determination of the applicants' skills, knowledge and competence against the known standard, applicants will be invited to sit composite practical and theoretical assessments.

Resources

Statement of Entry Requirements
cont'd**Transfer and Progression Pathways**

In the context of further development of the National Framework of Qualifications, routes of transfer and progression will be established for all awards including the Advanced Certificate. Transfer and progression details will be published as they become available.

QQI will facilitate the development of a national approach to credit accumulation and transfer, based on units of learning. Credit arrangements, when they have been developed will be made available to holders of the Advanced Certificate Craft.

Resources**Programme Staff Profile**

Staff who deliver off-the-job Phase 2 training are required to:

1. Have qualified as a craftsperson
2. Have five years post-apprenticeship experience
3. Hold a recognised assessor qualification

Each instructor undergoes further development in training techniques.

Staff who deliver Phases 4 and 6 training are required to:

4. Hold a degree or its equivalent in the subject area or have qualified as a craftsperson
5. Have three years relevant post-graduate experience.
6. Hold a recognised assessor qualification

Support Services

A range of services are provided by SOLAS including:

- Approved pre-apprenticeship training courses for educationally disadvantaged persons
- Mandatory Apprenticeship Induction Presentation
- Apprentice Training Information Pack
- This includes portfolio, curricula, quality assurance and validation requirements
- Learning supports in accordance with SOLAS procedures available on SOLAS website
- Advice and assistance to employers on all aspects of apprenticeship including their capacity to undertake apprentice training
- Training and development for the in-company manager/verifier and assessors.

Quality Assurance

Quality Assurance

The SOLAS approach to quality assurance is set out in the SOLAS National Quality Assurance Policy. The national quality assurance procedures covering apprenticeship are set out by SOLAS Training Services and SOLAS Apprenticeship and Work Based Learning.

As first provider SOLAS is responsible for the monitoring and evaluation of the training programme.

Quality Assurance within SOLAS and within educational providers is carried out by their own respective quality assurance systems. Quality Assurance requirements, including agreed monitoring arrangements, are documented in a memorandum of understanding between SOLAS and educational providers.

As part of arrangements outlined at the time of apprentice registration an employer can expect to receive monitoring visits by SOLAS. The object of in-company monitoring is to verify that the training and assessment practices in the enterprises meet the standards required for each on-the-job phase of the apprenticeship. Monitoring within SOLAS and the educational establishments takes place to assess the effectiveness of the education and training curriculum.

Feedback forms are provided with all on-the-job training documentation. In this way, employers can provide feedback and evaluation of the off-the-job training programme.

Learner Information

Learner Information**The Duties and Responsibilities of Apprentices**

Apprentices must comply with the statutory obligations under the Industrial Training Act, 1967, the Labour Services Act, 1987 and 2009 any Apprenticeship Rules (which may apply from time to time) in relation to apprenticeship. Apprentices are required to attend the Apprenticeship Induction Presentation and to attend, punctually, all scheduled classes and training sessions of all off-the-job training phases.

In addition, apprentices are required to take responsibility for their own continuing learning throughout the apprenticeship; be diligent and committed to all aspects of work, training and education throughout the apprenticeship; seek the advice of employer and/or workplace assessor, where difficulties arise while undergoing on-the-job phases of training and to attend any off-the-job training location for the off-the-job training phases.

Apprentices are expected to be responsible for attendance, time keeping and behave in a responsible and mature manner in both employment and during off-the-job training phases. Apprentices are required to undertake all scheduled modular and competency assessments including re-sit assessments.

It is imperative for apprentices to operate with due care and diligence and observe all safety regulations as specified on both on-the-job and off-the-job training as stated in the apprenticeship programme specification. Each apprentice will carry out all reasonable instructions from the person or persons to whom they are assigned, during both on-the-job and off-the-job phases of their apprenticeship.

Apprentices should be aware that the off-the-job phases of the apprenticeship do not alter their status as an employee of their employer, nor does it imply a contract of employment between SOLAS and the apprentice. Apprentices remain, at all times during the apprenticeship, in the employment of the employer.

The Duties and Responsibilities of Employers

Employers must comply with the statutory obligations under the Industrial Training Act, 1967, the Labour Services Act, 1987 and any Apprenticeship Rules, (which may apply from time to time) in relation to Apprenticeship and understand that they are required to implement the approved curriculum appropriate to the craft.

Employers are expected to train the apprentice in the required on-the-job aspects of apprenticeship and to provide the apprentice with the opportunities to practise new skills under supervised conditions while taking cognisance of the apprentice's skill level at the time the task is being undertaken.

Learner Information

Learner Information
cont'd

Consequently, employers are required to directly employ a suitably qualified and craft specific craftsperson who can or has been approved by SOLAS to act as the workplace assessor with responsibility for training, marking assessments, recording and processing assessment checklists and on-the-job schedules as specified in the SOLAS Workplace Assessment Book for the on-the-job phases of the apprenticeship.

Employers are expected to ensure that all the on-the-job assessments are conducted in a fair and consistent manner and to submit all the on-the-job training assessment results to the assigned Senior Training Advisor [STA] or Authorised Officer [AO] on schedule. Employers are also required to maintain on-the-job training assessment records for each apprentice and to ensure that SOLAS personnel have access to these records when required.

Employers are expected to release the apprentice(s) for the Phase 1 Apprenticeship Induction Presentation and off-the-job training phases on the dates and to the location as specified by SOLAS.

Employers are expected to comply with all statutory health and safety, employment, apprenticeship legislative requirements in relation to their apprentice(s).

Redundancy

Employers are required to contact the appropriate Senior Training Advisor [STA] or Authorised Officer [AO] in the event of terminating the employment contract with an apprentice, prior to doing so. Employers must also take all reasonable steps to have their obligations under the contract of apprenticeship transferred to another employer.

In the event of redundancy, employers are required to give written prior notice of the intended redundancy to the appropriate Senior Training Advisor [STA] or Authorised Officer [AO] and to take all reasonable steps to have their obligations under the contract of apprenticeship transferred to another employer.

Apprentices need to contact their appropriate Senior Training Advisor [STA] or Authorised Officer [AO] in the event the employer terminates the apprenticeship or the apprentice terminates the employment contract.

Recruitment of Apprentices

Prospective apprentices can obtain information on entry requirements and craft occupations by accessing Apprenticeship.ie and/or the Apprenticeship Manager at your local Education and Training Board (ETB). Similarly, any employer wishing to recruit an apprentice should contact Apprenticeship.ie or their local Apprenticeship Manager at your local Education and Training Board (ETB) for further information.

Learner Information

Learner Information
cont'd

To register as an apprentice, the prospective apprentice must first obtain employment with a SOLAS approved employer in their chosen occupation. Under the statutory rules of apprenticeship all employers are required to register their apprentices with SOLAS within two weeks of commencing employment.

Furthermore, any employer wishing to register an apprentice must be able to satisfy SOLAS that the employer is capable of providing access to the range of work specified in the apprenticeship curriculum. The employer must employ a suitably qualified and experienced craftsperson to oversee the training and work of the apprentice as well as a suitable person approved by SOLAS to carry out the specified assessments required to establish an apprentice's competence.

Funding Arrangements

While attending off-the-job phases of training the apprentice is paid a training allowance by SOLAS. Throughout the on-the-job training phases apprentices are paid the normal apprentice wage rate by the employer. In most cases such rates have been agreed between employer and trade union representatives and vary according to the year of apprenticeship.

Learners with Special Needs

People with a disability who meet the entry requirements are encouraged to apply directly to employers for apprenticeship places.

SOLAS provides a range of employment services through its employment offices. Further information on disability can be accessed at <http://www.solas.ie>.

Prior to commencement of Phase 2 training, where learners disclose learning disabilities or other physical, sensory or intellectual disabilities, SOLAS will put in place special arrangements or accommodations for such learners to ensure that they are facilitated within the programme.

These accommodations may include:

- Adaptive equipment
- Use of readers or writers

If any special arrangements are required the apprentice should notify SOLAS in advance of the programme commencing.

Equal Opportunities

SOLAS apprenticeships are open to men and women equally. Through its annual 'Positive Action Programme for Women', SOLAS provides a financial bursary to encourage employers to hire female apprentices. Application forms are available from your local Education and Training Board (ETB) Senior Training Advisor [STA] or Authorised Officer [AO].

Learner Information

For further information please contact:

**SOLAS,
Apprenticeship and Work Based Learning,
Castleforbes House,
Castleforbes Road,
Dublin 1.**

Tel: +353 1 533 2500

e-mail: info@solas.ie

Web: <http://www.solas.ie>

Carpentry & Joinery

Curriculum

Introduction to Phases 2/4/6

OFF-The-Job



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

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Introduction

Purpose	The purpose of Phases 2, 4 and 6 of apprenticeship training and education programmes is to provide all apprentices with the opportunity to learn, practice and develop the skills of their craft, to familiarise them with the terminology, tools, materials, equipment and working practices which will form the foundation for their further development and progression.
Content	During each phase the apprentice will undergo a series of integrated learning experiences to develop the skills, knowledge and competence prescribed for each phase. The content is structured to develop the apprentice in the range of skills which they will be required to perform to agreed industry standards.
Assessment	Throughout each phase, the apprentice will undertake a number of assessments which are an essential part of the certification and award of an Advanced Certificate Craft.

Occupational Profile

Craft Occupation Wood crafts (Carpentry & Joinery, Wood Manufacturing & Finishing)

Industry Served Construction

Profile of Craft The Trade of Carpentry & Joinery is very wide and varied, it encompasses most of the skills required by the Wood Trades. These skills required of the Carpenter & Joiner are not confined to those required to work in wood but include skills in the use of metals, plastics and fabrics. The Carpenter & Joiner is also required to work in a cross section of domains within the overall trade. The following are some examples:

1. Joinery Shop

This section of the occupation requires the Carpenter & Joiner to engage in setting out, production and assembling items of joinery which include stairs, doors, windows and built-in furniture.

2. Site Work

Site work is the construction of buildings or houses which require 1st fixing, formwork roofs and 2nd fixing. This section is split into two categories, constructing/civil engineering contracts.

3. Maintenance

Maintenance work requires the Carpenter & Joiner to carry out a variety of tasks in general maintenance and upkeep of public and private buildings, e.g. shops and factories.

There are other areas associated with the trade which include: renovating buildings, shopfitting, exhibition/display work.

Occupational Profile

At the end of the apprenticeship, the craftsperson will be able to demonstrate competence in the following skills:

Core Skills

- Construction of upper floors
- Construction of flat roofs
- Construction of pitched roofs
- Construction of hip roofs
- Construction of pitching roofs (trussed)
- Construction of load and non-load bearing partitions
- Fabrication and erection of formwork for walls, columns, floors, stairs
- Construction and hanging of the following:
 - Framed and sheeted doors
 - Panelled doors
 - Flush doors
- Construction and installation of internal and external door frames
- Construction and installation of windows
- Carrying out 1st and 2nd fixing on buildings
- Operation of the following powered hand tools:
 - Saw, planer, drill, router, screwdriver, ballistic gun, router, sander, jig saw

Specialist Skills

- Construction of moulds
- Construction of centres for arches
- Construction of specialist type joinery
- Construction of fitments
- Setting out buildings
- Site levelling

Generic Skills

- Use and care of hand tools
- Interpreting drawings
- Measurement
- Setting out
- Marking out
- Planning (production)
- Calculations
- Tools/equipment

Occupational Profile

Generic Skills
cont'd

- Work practice
- Use of manufactured boards
- Fixings
- Ironmongery
- Basic wood joints
- K/D fittings
- Setting up and operation of machines for specific operations

Personal Skills

- Communications
- Customer relations
- Adaptability
- Ability to work as a team member
- Ability to work independently
- Initiative
- Problem solving
- Planning
- Information gathering
- Quality systems
- Safety

NOTE: All skills are delivered as part of an integrated curriculum module. Integrated curriculum includes maths, science, theory, drawing and computer applications

 Phase 2 Modular Plan

Training time 612.75 hours

Assessment time 43.5 hours

Total 656.25 hours

Module 1: Tools and Joints

Units	Hours
1. Workplace Related Safety	6
2. Toolkit and Sharpening	6
3. Linear Measurement	3
4. Tools and Framing Joints	33.75
5. Machine Crosscutting	6
6. Resaw Machine	6
7. Wood Technology	9
8. Introduction to Draughting	5
9. Plane Geometry	5

Duration 79.75 hours

Module 2: 1st Fixing and Site Works

Units	Hours
1. Planning Work	6
2. Orthographic Projection	6
3. Timber Framed Construction	11
4. Perimeter and Area	3
5. Timber Floors	20
6. Partitions	14
7. Centres for Arches	3
8. Formwork and Arches	24
9. Sealant, Fixings and Fixing Equipment	4
10. Introduction to Scale Drawing	3

Duration 94 hours

Module 3: Timber Roofs

Units	Hours
1. Sketching	3
2. Types of Roofs	4
3. Trigonometry	6
4. Roofing - Marking Out Methods	3
5. Cut Roof Construction	62
6. Trussed Roof Construction	22

Duration 100 hours

Note: Durations given on all are guideline only

 Phase 2 Modular Plan

Training time 612.75 hours

Assessment time 43.5 hours

Total 656.25 hours

Module 4: Joints in Moulded Timber

Units	Hours
1. Ploughed, Rebated and Scribed Joints	25
2. Surface Planing Machine	65
3. Thicknessing Machine	3.5
4. Hollow Chisel Morticing Machine	7

Duration 42 hours

Module 5: Joinery

Units	Hours
1. Panel Sawing	4
2. Narrow Band Sawing	2
3. Machine Sanding	2
4. Scale Drawing - Joinery	3
5. Door Manufacturin	40
6. Window Manufacturing	32
7. Stair Manufacturing	42
8. Pictoral Drawing	11

Duration 136 hours

Module 6: 2nd Fixing Activities

Units	Hours
1. Door Frames	15.5
2. Door Hanging	40
3. Lining, Architraves and Skirting	22.5
4. Fitting Stairs	5
5. Handrailing	5
6. Flooring	9
7. Calculating Material Requirements	6
8. Scale Drawing – 2nd Fixing	3

Duration 106 hours

Note: Durations given on all are guideline only

Phase 2 Modular Plan

Training time 612.75 hours**Assessment time 43.5 hours****Total 656.25 hours**

Module 7: Communications & Team Leadership

Units	Hours
1. Information Technology Skills (I.T.)	20
2. Reflective Practice	5
3. Introduction to Project Planning	5
4. Introduction to Report Writing	5
5. Teamwork	15

Duration 50 hours

Phase 4 Modular Plan

Training time 366.5 hours**Assessment time 18.5 hours****Total 385 hours**

Module 1: 1st Fixing and Site Works

Units	Hours
1. Timber Floors	8
2. Wood Technology	17
3. Shoring and Temporary Work	9.5
4. Formwork	19
5. Timber Framed Buildings	13
6. Planning and Building Standards	6
7. Safety and Health Regulations	6
8. Acoustic Insulation	6
9. Volume and Capacity	7
10. Geometric Construction of Arches	7
11. Scale Drawing – 1st Fixing	9
12. Geometric Calculations	7

Duration 114.5 hours

Module 2: Timber Roofs

Units	Hours
1. Hip and Valley Cut Roofs	26
2. Hip and Valley Truss Roofs	10
3. Connecting to Existing Pitched Roof	9
4. Dormer Roofs	18
5. Ratio & Proportions	6
6. Transformation of Formulae	6
7. Roofing Geometry	17

Duration 92 hours

Phase 4 Modular Plan

Training time 366.5 hours**Assessment time 18.5 hours****Total 385 hours**

Module 3: Joinery

Units	Hours
1. Window Manufacturing	4
2. Stair Manufacturing	18
3. Curved Joinery Manufacturing	26
4. Louvre Frames	12
5. Spindle Moulder	4
6. Single Ended Tennon Machine	4
7. True Shape and Development of Complete and Truncated Solids	12
8. Enlarging and Reducing	10
9. Scale Drawing - Joinery	18

Duration 108 hours

Module 4: 2nd Fixing Activities

Units	Hours
1. Handrailing	6
2. Domestic Fitted Furniture	4
3. Timber Trims	2
4. Costing of Projects	6
5. Screens And Shopfronts	12

Duration 30 hours

Module 5: Communications & Team Leadership

Units	Hours
1. Research and Structured Report Writing	10
2. Legislation in the Workplace	10
3. Reflective Practice	2

Duration 22 hours

 Phase 6 Modular Plan

Training time 328 hours

Assessment time 22 hours

Total 350 hours

Module 1: 1st Fixing and Site Works

Units	Hours
1. Basic Setting Out	14
2. Building Aesthetics and Sustainability	15
3. Construction Documents and Project Planning	11
4. Thermal Insulation and Heat Transfer	8
5. Mass and Density of Solids	6
6. Principles of Movement and Mechanics of Force	9
7. Conic Sections	8
8. Development of Skew Arches and Intersecting Vaults	6

Duration 77 hours

Module 2: Timber Roofs

Units	Hours
1. Construction of Hipped Roofs of Unequal Pitch	14
2. Roofs of Oblique Plan	14
3. Semi-circular Hipped End Roofs	10
4. Roof Trusses – Mid to Large Span	6
5. Roof Geometry	12
6. Segmental Bay Roof	12
7. Interpretation	10

Duration 78 hours

Module 3: Joinery

Units	Hours
1. Stair Manufacturing	12
2. Wreathed String Stair Manufacturing	6
3. Construction of Louvers in Curved Frames	12
4. Glue/laminating Construction	18
5. Handrail Wreath Manufacturing	12
6. Simple and Compound Interest	5
7. Scale Drawing - Joinery	14

Duration 79 hours

Note: Durations given on all are guideline only

Phase 6 Modular Plan

Training time 328 hours**Assessment time 22 hours****Total 350 hours**

Module 4: 2nd Fixing Activities

Units	Hours
1. Mouldings	8
2. Fire Doors and Frames	12
3. Commercial Fitted Furniture	6
4. Wall Panelling	6
5. Handrailing	8
6. Profit and Loss	6
7. Splayed Work	10
8. Scale Drawing - 2nd Fixing	12
9. Building Information Modelling	4

Duration 72 hours

Module 5: Communications & Team Leadership

Units	Hours
1. Project Planning	12
2. Leadership	8
3. Reflective Practice	2

Duration 22 hours

 Personal Protection Equipment List

General PPE	Bib and brace	CE
	Cotton or polyester/cotton	
	Coverall (boilersuit)	CE
	Cotton or polyester/cotton	
	Flame-retardant cotton coverall	EN470-1: EN531 A, B1, and C1 EN533
	(Also available flame-retardant bib and brace, jacket and trousers	
		EN470-1 EN531 A,B1,and C1 EN533)
	Tyvek coverall	EN340 complex design 5 and 6
	Safety shoes/boot	EN345 S3
	Safety helmet	EN397
	Bumpcap	EN812:2002
	Hi-visibility waistcoat	EN471 CI 1 and CI 2
	Hi-visibility jacket	EN471 CI 3
	Industrial gloves	EN420
	(General)	
	Ear defenders	EN352-1
	Ear plugs	EN352-2
	Barrier cream	EN1500
	Eye and face protection	EN166 1B/1F (goggles, spectacles and visors)
	Safety spectacles	EN166 1B/1F
Goggles/visor		
Respiratory protection	EN149:2001 FFP2/FFP3 (disposable) EN136 CI 1 c/w P2/P3 filter (full mask) EN140 c/w P2/P3 filter (half mask)	

N.B. Filters may be interchanged on half masks and full masks. It is important to seek advice from supplier when ordering filters. It is necessary to advise supplier about any chemicals, etc. for which protection is sought.

Apprentice Toolkit for Phase 2/4/6

Based on a group of 14

Item No.	Description	Quantity
1.	Smoothing plane: No. 4	1
2.	Jack plane: No. 5	1
3.	Set of chisels, bevel edge: 6, 12, 19 and 25mm	1 of each
4.	1 metre rule, boxwood	1
5.	Screwdriver: 200mm C/B handle	1
6.	Screwdriver: 75mm C/B handle	1
7.	Claw hammer: 20 oz	1
8.	Try-square/mitre square: 300mm	1
9.	Sliding bevel: 225mm	1
10.	Sharpening stone double sided: 225mm	1
11.	Panel saw: 500mm (10 teeth per 25mm)	1
12.	Hand saw: (7 teeth per 25mm)	1
13.	Mortice gauge/combination gauge (screw adjustment)	1
14.	Tenon saw	1
15.	Bradawl	1
16.	Cork sanding block	1
17.	Coping saw	1
28.	Overalls	1
29.	Safety shoes	1
20.	Set of nail punches	1
21.	T-square (900mm long)	1
22.	Set squares 45°, 60°	1 each
23.	Compass	1
24.	2H/4H pencil	1 each
25.	Scale rule (1:1, 1:2, 1:5, 1:10)	1

As these tools are in general use and require long life span, only the purchase of best quality tools is advised.

 Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
1.	Circular Saw Diameter of saw 600mm Saw blade projection 254mm Size of table 118mm x 895mm Height of table 864mm Distance saw to fence 610mm Fence dimensions 633mm x 190mm Rise and fall of saw spindle 177mm Power of motor 7.5kW Speed of saw spindle 1590rpm Accessories Overload protection Star delta start OR	1
1A.	Band Resaw Dia. of saw wheels 700mm Max. depth under saw guide 325mm Max. depth of cut 300mm Max. distance saw to body 680mm Max. opening to feed 300mm Max. opening to multi-roller 230mm fence Saw motor power 11.0 kw (15 hp) Speed of sawblade 1800 M/min Feed speed infinitely variable 4-25 M/min Feed motor power 0.75 kw (1 hp) Max. width of sawblade 76mm Max. length of sawblade 5080mm Min. length of sawblade 4940mm	

 Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
2.	Travelling Head Cross Cut Saw	1
	Motor speed	3,000-3,425rpm
	Power of motor	2.5 - 2.75kW
	Max. cross cut capacity	610mm
	Max. cross cut capacity at 45½	445mm
	Depth of cut	110mm
	Depth of bevel cross cut at 45½	54mm
	Max. ripping capacity	920mm
	Blade	350mm
	Blade bore	30mm
	Guard	350mm
	Arbor and length	30-60mm
3.	Bandsaw	1
	Diameter of wheels	760mm
	Width of saw band	standard sizes
	Length of saw band	5182mm
	Depth under saw guide	355mm
	Distance saw to body	710mm
	Size of table	760 x 760mm
	Overall height 2	260mm
	Speed of saw wheels	750rpm
	Power of motor	3.75kW
4.	Spindle Moulder	1
	Size of table	990 x 813mm 1
	Work up to	250mm
	Fence plates	157 x 150mm
	Power of motor	4 kW
	Diameter of top spindle	30mm
	Spindle speeds	3000, 4500, 6,000, 8000rpm
	Rise and fall of spindle	150mm

 Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
5.	Tenoning Machine	1
	Tenon length	150mm
	Width of wood with fence	390mm
	Height of wood	150mm
	Cutterblock spindles	30mm
	Saw blade diameter	400mm
	Diameter of horizontal Cutterblocks	160mm
	Diameter of vertical discs	270mm
	Max. admissible diameter	350mm
	Table size	390 x 100mm
	Power: tenoning heads (2)	3.75 kW
	Scribing heads (2)	2.25kW
	Cut-off saw	2.25kW
6.	Morticing Machine	2
	To take timber up to	225 x 180mm
	Size of chisel	25mm
	Size of table	400 x 200mm
	Vertical rise and fall of table	270mm
	Longitudinal motion of table	400mm
	Transverse motion of table	90mm
	Power of motor on chisel	1.5kW

Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
7.	Edge Grinder	1
	Overall dimensions	560 x 560 x 864mm
	Wheel size	406 x 32 x 32mm
	Wheel grade standard	A80
	Wheel speed motor speed	110 rpm
	Power of motor	1425 rpm
	Spindle diameter	0.186kW
	Reduction gear	32mm
	Reduction ratio	28mm
	Cabinet (fabricated)	3mm 12 swg
	Plane iron capacity	76mm
	Chisel	32mm
	Master arm adjustment	250
	Honing oil tank capacity	5 litres
	Honing oil feed pump unit	(mechanical)
	Wheel cover to suit	
8.	Belt Sander	1
	Length of table	3000mm
	Width of table	800mm
	Automatic vertical stroke of table	650mm
	Power of main motor (2 speeds)	3kW
	Suction motor power	0.75kW
	Motor power for the automatic lifting of the table	0.350kW
	Length of sanding belt	8000mm
	Standard width of sanding belt	120/150mm
	Peripheral belt speed	19/28metres/second
	Depth of throat	700mm
	Height of throat	180mm
	Overload protection	

Accessories

Dust filter (3 sleeves)

Table fence

Pad 150mm

Sanding belts

.....

 Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
9.	Dimension Saw	1
	Diameter of saw blade	400mm
	Depth of cut (saw 0-900mm) 45½.....	90mm
	Depth of cut (saw 0-400mm) 90½.....	190mm
	Diameter of saw spindle	30mm
	Dimensions of sliding table	2650 x 380mm
	Max. sliding table stroke	3000mm
	Max. cross cut	2500mm
	Dimensions of fixed table	1150 x 665mm
	Rip to right of saw	1040mm
	Power of motor	5.6kW
	Saw spindle speed	3200-4600-6000rpm
	Scoring unit	
	Diameter of saw	110mm
	Bore of saw	20mm
	Depth of cut	4mm
	Power of motor	0.56kW
	Spindle speed	8000rpm

Accessories

Overload protection

10.	Surface and Thickness Planer	1
	Dimensions of surface tables 410 x 2000mm	
	Diameter of cutterhead 110mm	
	Thicknessing capacity 220mm	
	Thickness feedspeeds (two) 8-14 metres/minute	
	Power of cutterhead motor 4.12kW	

 Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
11.	Portable cross cut (chop saw)	1
12.	Carpenter's bench	14
13.	Carpenter's bench locker	2
14.	Locker for machine parts	2
15.	Carpenter's vice: 225mm	14
16.	Saw vice	2
17.	Battery operated screwdriver	4
18.	Portable power drill	4
19.	Portable power saw	1
20.	Portable rotary sander	4
21.	Ballistic gun	1
22.	Router	4
23.	Planer	2

Accessories and Tooling for:

Saw (Circular)

24.	Tungsten carbide tip 650mm diameter2 (TCT) blade	2
-----	---	---

Cut Saw (Cross)

25.	TCT blade: 250mm diameter2	2
-----	----------------------------------	---

Bandsaw

26.	6, 9, 12 and 19mm blades1 of each	1 of each
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Spindle Moulder:

27.	Power feed with variable speed, complete with universal stand.....1	1
	Universal cutter head with 20 pairs of HSS shaped cutters1	1
	Rebate head, fitted with TCT turned blades 125mm diameter.....1	1
	T and G profile head for timber1 (dimensions 12mm 36mm by 135mm diameter)	1

 Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
Tenoner 1 of each		
28	a) Series of cutters HSS, ranging from 12mm on cut up to 37mm. Right and left hand	
	b) TCT cut-off saw	
Morticer		
29.	a) Hollow square chisels and bits: 6, 9, 12, 15 and 19mm ...	1 of each
	b) Mortice chain sets 12 x 44mm	1 of each
	c) Mortice chain sets 10 x 44mm	1 of each
Saw Panel		
30.	50 TCT saw blade: 300mm diameter x 72 teeth	2
	TCT split-type scoring saw blade	2
31.	Set of knives (Planer).....	2
Instruments:		
32.	Auto Dumpy level and staff	1
33.	Brad nailer	1
34.	Boning rods	1
35.	Water level	1
36.	1.8 door cramp T-bar	14
37.	1.2m sash cramp	14
38.	200mm G-cramp	14
39.	75mm G-cramp	14
40.	Floor cramp	7
41.	Bench stop	28
42.	Rip saw: 4 teeth per 25mm	2
43.	Dovetail saw	1
44.	Pad saw	1
45.	Coping saw	7

 Tools, Equipment & Consumables for Phases 2/4/6

Based on a group of 14

Item No.	Description	Quantity
46.	Carpenter's axe	2
47.	Rebate plane	2
48.	Spokeshave: flat and round	2 of each
49.	Mortice chisel: 8mm	2
50.	Mortice chisel: 12mm	14
51.	Firmer gouge 12mm	14
52.	Scribing gouge: 12mm	14
53.	Expansive bit: 12mm - 35mm	1
54.	Expansive bit: 19mm - 75mm	1
55.	Depth gauge for bits	1
56.	33m steel tape	2
57.	1m spirit level and 1.8m spirit level	2
58.	Mallet: 115mm, beech	14
59.	Steel roofing square	7
60.	Marking knife	1
61.	Framing nailer	2
62.	Finish nailer	2
63.	P.C. and internet access	14

Recommended Classroom & Workshop Facilities for Phase 2/4/6

Some adjustments to this allocation may be necessary to accommodate the course within the limitations of the building being used.

1. Workshop Specification (per class size of 14 apprentices)

- a) Space allocation per apprentice:8 sq. metres
- b) Working height4.5 metres
- c) Access width for materials to workshop4 metres
- d) Services:
 - single phase electrical supply (portable tools, etc.)
 - adequate artificial lighting
 - floor of suitable construction (steel floated)

2. Machine Shop Specifications, based on group of 14

- a) Total area (sheltered and heated) 198 sq. metres
- b) Working height 4.5 metres (min.)
- c) Services:
 - overhead power supplies to machines:
 - 220 V; 380 V
 - 10 V for portable tools
 - dust extraction system complete with cyclone
 - adequate artificial lighting
 - non-slip concrete flooring
 - machines fitted with safety locks
 - isolator switches to be fitted to all fixed machines

Recommended Classroom & Workshop Facilities for Phases 2/4/6

3. Project Area

In addition to the Workshop and Machine Shop, a project area is also required to enable apprentices to complete some of the exercises specified in the curriculum.

Project Area Specification, based on group of 14

- a) Dimensions of cubicles and projects area are outlined below and should be adjacent to the Workshop
- b) Minimum cubicle size 3m x 4m approximately
- c) Number required 4 (4 apprentices to each cubicle)
- d) Total size of project area (including scaffolding space) 76 sq.m
- e) Cubicle to be erected by apprentices
- f) Cubicles to be constructed on concrete slab
- g) External timber store (covered and adjacent to workshop)

4. Classroom Facilities

A standard classroom will be required for a number of hours each week. These facilities will be shared with other groups within the training location.

Carpentry & Joinery

Curriculum

Phase 2

OFF-The-Job



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

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While it is intended that the modules be delivered in the sequence specified, it is acknowledged that modules covered can be determined by the rate of progress of the participants and the availability of resources within the training location.

Each module consists of a number of learning units which describe:

- The skills to be developed
- The key learning points for the integrated practical and knowledge elements
- Exercises to be conducted at the end of the learning unit.

Assessment and Skill Codes

Assessment Codes: to indicate how each unit learning outcome is to be assessed:

T = Theory

PW = Project Work

P = Practical

SD = Skills Demonstration (on-the-job)

D = Drawing

Skills Codes: to indicate which skill(s) each KLP addresses:

Core Skills

TK = Technical Knowledge

Sk = Practical skill

Generic Skills

Generic skills will include basic skills such as literacy and numeracy, and also key skills such as communication, team working, planning, problem solving, and customer handling. Generic skills are those that apply across a variety of jobs and life contexts.

Fundamental Skills

M = Maths

H = Hazards associated with task

Sc = Science

IT = Information Technology

H&S = Health & Safety

D = Drawing

Personal Skills¹

TW = Teamwork

COM = Communications

Conceptual Skills

LL = Learning to Learn

PS = Problem Solving

¹ (current PS code used under Conceptual Skills)

Learning Units for Module 1

Module 1: Tools and Joints**Duration: 79.75 hours**

Unit No.		Duration Hours
1.	Workplace Related Safety	6
2.	Toolkit and Sharpening	6
3.	Linear Measurement	3
4.	Tools and Framing Joints	33.75
5.	Machine Cross-cutting	6
6.	Resaw Machine	6
7.	Wood Technology	9
8.	Introduction to Draughting	5
9.	Plane Geometry	5

Module Objectives

Module 1: Tools and Joints

Duration: 79.75 hours

At the end of this module each apprentice will be able to:

No	Activity	Assessment Type	Standard Code/LO
1.1	Identify the risks and hazards associated with the workplace;	T	1st Fixing and Sitework LO8
1.2	State the causes and means of prevention of accidents in the workplace	T	1st Fixing and Sitework LO8
2.1	Demonstrate the techniques required to sharpen and maintain hand and power tools used by the craft to a safe standard	T, SD	1st Fixing and Sitework LO3
3.1	Apply the metric system of linear measurement in the production of framing joints using the millimetre unit of measurement	T, P	1st Fixing and Sitework LO10
4.1	Use hand tools for the preparation of timber in the production of framing joints	T, SD	1st Fixing and Sitework LO4, LO5, LO6 Timber Roofs LO12, LO13
4.2	Produce a range of framing joints using hand tools	T, P	1st Fixing and Sitework LO4, LO5, LO6 Timber Roofs LO12, LO13
5.1	Identify the parts and safety devices of the timber cross cutting machine	T	1st Fixing and Sitework LO1
5.2	Operate under supervision the timber crosscutting machine to cut timber to specified sizes	T, SD	1st Fixing and Sitework LO12
6.1	Identify the parts and safety devices of the timber re-sawing machine	T	1st Fixing and Sitework LO1
6.2	Operate under supervision the timber Resaw Machine to cut mtimber to specified sizes	T, SD	1st Fixing and Sitework LO12

 Module Objectives

Module 1: Tools and Joints**Duration: 79.75 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
7.1	Describe the characteristics of hardwood and softwood, their source of supply and uses in carpentry and joinery	T	1st Fixing and Sitework LO2
7.2	Describe the process used in the conversion of trees to timber for a variety of applications and state the precautions required to maintain it	T	1st Fixing and Sitework LO2
7.3	Describe the advantages and disadvantages in material and application of manufactured boards	T	1st Fixing and Sitework LO2
8.1	Use geometrical principles to, bisect lines and angles	P	1st Fixing and Sitework LO11
9.1	Draught geometrical shapes to include triangles, polygons and circles	P	1st Fixing and SiteworkLO11

Unit 1: Workplace Related Safety**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 1.1.1 | State the risk, hazards and causes of accidents in the workshop |
| T | 1.1.2 | Discuss the safe use of the Bench-Grinding Machine |
| T | 1.2.1 | State the impact of poor waste disposal on the environment |
| T | 1.2.2 | Select the correct methods for the disposal of waste |

Key Learning Points

- | | | |
|------------|---------|---|
| TK,
H&S | 1.1.1.1 | Risks, hazards and causes of accidents in the workshop; PPE; Safety, Health and Welfare at Work Regulations; relevant safety signage; good working practice; cleanliness and tidiness in the workshop |
| TK,
H&S | 1.1.1.2 | Position of guards and tool rests; lubricant |
| TK,
H&S | 1.2.1.1 | Environment awareness, effects of various types of waste on the environment |
| TK,
H&S | 1.2.2.1 | Types of waste bins, waste disposal procedures and recycling |

Training Resources

1. Classroom and workshop facilities as per general introduction
 - PPE
 - Safety signs
 - Tool Grinding Machine

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: risks, hazards and causes of accidents; PPE; Safety, Health and Welfare at Work Regulations; safety signage; good working practices; cleanliness and tidiness in the workshop; position of guards and tool rests; lubricant; environmental awareness and disposal of waste
2. Grind plane irons and chisels to the correct angle

Unit 2: Toolkit and Sharpening**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Identify and name the basic hand tools in the Carpentry and Joinery trade
T	2.1.2	State the function of each tool
SD	2.1.3	Use a sharpening stone to hone and sharpen chisel and plane irons
T SD	2.1.4	Apply the appropriate health and safety procedures in the use of power tools
T	2.1.5	Identify correct extension leads

Key Learning Points

TK	2.1.1.1	Planes, saws and chisels
TK	2.1.2.1	Cutting; paring; marking; boring
Sk	2.1.3.1	Types of sharpening stones; types of lubricants; care of sharpening stone; sharpening techniques and honing angles
TK	2.1.4.1	Drill, router, planer, circular saw, jig saw, ballistic gun, sander, nail gun and voltage regulator
TK	2.1.5.1	115V Extension leads and 230V Extension leads

Training Resources

- Workshop facilities as per general introduction
- Carpentry and Joinery toolkit
- Power tools as per KLP
- Sharpening stone
- Lubricant

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: types of sharpening stone; lubricant; hand tools; power tools; extension leads
2. Hone plane irons and chisels to a fine edge

Unit 3: Linear Measurement**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 3.1.1 | Define linear measurements and standard symbols |
| P | 3.1.2 | Apply linear measurements in millimetres in the context of craft activities |

Key Learning Points

- | | | |
|---|---------|--|
| M | 3.1.1.1 | Metric system; base units; derived units; prefixes for multiples |
| M | 3.1.2.1 | Measuring equipment; rule, tape and digital meter |

Training Resources

- Classroom facilities as per general introduction
- Rule, tape and digital meter

Exercise

1. Complete relevant trainer generated exercises on linear measurements

Unit 4: Tools and Framing Joints**Duration: 33.75.hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|-------|-------|--|
| T, SD | 4.1.1 | Demonstrate the use of Carpentry & Joinery tools and clamping devices in the manufacture of framing joints |
| T, SD | 4.1.2 | Prepare timber to given sizes for use in the manufacture of joints |
| T, P | 4.2.1 | Interpret working drawings in the production of framing joints |
| T, P | 4.2.2 | Mark out and manufacture the following framing joints
a) Cross, tee and dovetail halving
b) Tee and corner bridle
c) Mortice and tenon
d) Haunched mortice and tenon |
| P | 4.2.3 | Manufacture square and wedge frames containing framing joints |
| P | 4.2.4 | Assess quality of own work |

Key Learning Points

- | | | |
|--------|---------|--|
| TK, Sk | 4.1.1.1 | Use of jack plane; smoothing plane; tri-square; marking gauges; firmer chisels; paring chisels; mortice chisels; tenon saw; coping saw; marking knife; spoke shave; bench vice; G-cramp and sash cramp |
| TK, Sk | 4.1.2.1 | Planing face of timber flat and true, planing to width and thickness, and use of face and edge marks |
| D, Sk | 4.2.1.1 | Use of working drawings |
| TK, Sk | 4.2.2.1 | Marking out procedures, proportions of elements, tenons, shoulders, mortices, halving's and haunches |
| TK, Sk | 4.2.3.1 | Wedging and squaring |
| LL | 4.2.4.1 | Reflection on finish of joints, blemishes and self assessment |

Training Resources

- Workshop facilities per general introduction
- Carpentry and Joinery toolkit
- Timber Redwood

Exercise

1. Manufacture of the following joints:

a) Cross halving joint	e) Corner bridle joint
b) Tee halving joint	f) Mortice and tenon joint
c) Dovetail halving joint	g) Haunched mortice and tenon joint
d) Tee bridle joint	
2. Manufacture a frame of no less than 300mm square containing cross, tee and dovetail halving joints
3. Manufacture a frame of no less than 300mm square containing tee and corner bridle, mortice and tenon, haunched mortice and tenon joints

 Module 1: Tools and Joints

Unit 5: Cross-Cutting Machine**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	Explain the functions of a Cross-Cutting Machine
T	5.1.2	Explain the function of the various parts of a Cross-Cutting Machine
T	5.1.3	Summarise Provision and Use of Woodworking Equipment Regulations (PUWER) in relation to Cross-Cutting Machine
T	5.1.4	Identify hazards of the Cross-Cutting Machine whilst applying safe working and housekeeping practices
SD	5.2.1	Operate the Cross-Cutting Machine under supervision to cut timber to specified sizes
T	5.2.2	Identify the correct saw blades to be used when cutting different materials
T	5.2.3	Develop a method statement and risk assessment for operating a Cross-Cutting Machine

Key Learning Points

TK	5.1.1.1	Typical applications
TK H	5.1.2.1	Correct method of operating locking levers and device, correct position of safety guards
TK H	5.1.3.1	Blade sizes, guarding and stopping speeds
TK H	5.1.4.1	Operating position, extraction and start up procedures
Sk H	5.2.1.1	Safety procedures relating to cutting of various materials
TK H&S	5.2.2.1	Revolutions Per Minute (RPM), teeth type and set and blade diameter
H&S	5.2.3.1	Hazards relating to the Cross-Cutting Machine, safe work practices and housekeeping
COM	5.2.3.2	Report writing

Training Resources

- Machine workshop facilities per general introduction
- Radial arm or Rising Cross-Cut Machine
- Selection of blades
- Suitable Timber

Exercise

1. Answer relevant Trainer-generated questions to cover the following areas, functions of a Cross- Cutting Machine, PUWER, related hazards and saw blades
2. Operate under supervision a Cross-Cutting Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Cross- Cutting Machine

Unit 6: Resaw Machine**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|----|-------|---|
| T | 6.1.1 | Explain the functions of a Circular/Band Resaw Machine |
| T | 6.1.2 | Explain the function of the various parts of a Circular/Band Resaw Machine |
| T | 6.1.3 | Summarise Provision and Use of Woodworking Equipment Regulations (PUWER) related to Circular/Band Resaw Machine |
| T | 6.1.4 | Identify hazards of the Circular/Band Resaw Machine whilst applying safe working and housekeeping practices |
| SD | 6.2.1 | Operate Circular/Band Resaw Machine under supervision to cut timber to specified sizes |
| T | 6.2.2 | Identify the correct saw blades to be used when cutting different materials |
| T | 6.2.3 | Develop a method statement and risk assessment for operating a Circular/Band Resaw Machine |

Key Learning Points

- | | | |
|------------|---------|---|
| TK | 6.1.1.1 | Typical applications |
| TK, H | 6.1.2.1 | Correct method of operating locking levers and device; correct position of safety guards |
| TK, H | 6.1.3.1 | Blade sizes, guarding and stopping speeds |
| TK, H | 6.1.4.1 | Operating position, extraction and start up procedures |
| Sk, H | 6.2.1.1 | Safety procedures relating to cutting of various materials |
| TK,
H&S | 6.2.2.1 | Revolutions Per Minute (RPM), teeth type and set blade diameter |
| H&S | 6.2.3.1 | Hazards relating to the Circular/Band Resaw Machine, safe work practices and housekeeping |
| COM | 6.2.3.2 | Report writing |

Unit 6: Resaw Machine**Duration: 6 hours****Training Resources**

- Machine workshop facilities as per general introduction
- Circular/Band Resaw Machine
- Extension rest/table
- Selection of blades
- Suitable Timber

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: functions of a Circular/Band Resaw Machine, PUWER, related hazards and saw blades
2. Operate under supervision Circular/Band Resaw Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Circular/Band Resaw Machine

Unit 7: Wood Technology**Duration: 9 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	7.1.1	Describe the characteristics of Softwoods used in Ireland
T	7.1.2	Describe the characteristics of Hardwoods used in Ireland
T	7.1.3	State source of supply of Softwoods and Hardwoods
T	7.2.1	Describe methods used in the conversion of trees
T	7.2.2	Describe methods of seasoning timber
T	7.2.3	Establish the correct method for checking moisture content for timber used externally and internally
T	7.2.4	Identify wood used in joinery and for structural purposes
T	7.3.1	Describe the process used in producing Manufactured Boards
T	7.3.2	Identify where each type of Manufactured Board could be used

Key Learning Points

TK	7.1.1.1	Colour, texture and figure/grain
TK	7.1.2.1	Colour, texture and figure/grain
TK	7.1.3.1	Location of supply
TK	7.2.1.1	Through and through, tangential, quarter and box heart sawn
TK	7.2.2.1	Methods include natural and mechanical
TK	7.2.3.1	Dry and Wet weight
TK	7.2.4.1	Timber Grading
TK	7.3.1.1	Laminated particle
TK	7.3.2.1	Advantages, disadvantages of each process

Training Resources

- Classroom facilities as per general introduction
- Moisture Meter, Sample of Manufactured Boards and Woods

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: characteristics of Softwoods/Hardwoods, source of supply, conversion, seasoning, moisture content and Manufactured Boards

Unit 8: Introduction to Draughting**Duration: 5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| P | 8.1.1 | Demonstrate the correct use of lines and lettering |
| P | 8.1.2 | Demonstrate drawing techniques to draw angles and perpendiculars |
| P | 8.1.3 | Use geometrical techniques to bisect lines and angles |
| P | 8.1.4 | Use geometrical techniques to divide a line in ratio and proportion |

Key Learning Points

- | | | |
|------|---------|---|
| D | 8.1.1.1 | Thickness of lines, styles of lines and size of lettering |
| D | 8.1.2.1 | Use of set-square and compass |
| D, M | 8.1.3.1 | Use of compass and protractor |
| D, M | 8.1.4.1 | Use of compass |

Training Resources

- Classroom facilities as per general introduction
- Drawing boards/T-squares
- Apprentice own drawing equipment
- A3 (min) drawing paper

Exercise

1. Complete relevant Trainer generated exercises to cover the following areas: lines and lettering, drawing angles and perpendiculars, bisecting lines and angles, dividing lines in ratio and proportion

Unit 9: Plane Geometry**Duration: 5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| P | 9.1.1 | Demonstrate the correct method of drawing circles, parts of circles and tangents |
| P | 9.1.2 | Demonstrate the use of lines to construct geometrical shapes |
| P | 9.1.3 | Define angular measurement and types of angles |
| P | 9.1.4 | Demonstrate methods of constructing triangles |

Key Learning Points

- | | | |
|-----|---------|---|
| M D | 9.1.1.1 | Thickness of lines, styles of lines and size of lettering |
| D | 9.1.2.1 | Use of set-square and compass |
| M D | 9.1.3.1 | Use of compass and protractor |
| M D | 9.1.4.1 | Use of compass |

Training Resources

- Classroom facilities as per general introduction
- Drawing boards/T-squares
- Apprentice own drawing equipment
- A3 (min) drawing paper

Exercise

1. Complete relevant Trainer generated exercises to cover the following areas: drawing circles, parts of circles and tangents, construction of geometrical shapes, angular measurement, types of angles and constructing triangles

Learning Units for Module 2

Module 2: 1st Fixing and Site Works**Duration: 94 hours**

Unit No.		Duration Hours
1.	Planning Work	6
2.	Orthographic Projection	6
3.	Timber Framed Construction	11
4.	Perimeter and Area	3
5.	Timber Floors	20
6.	Partitions	14
7.	Centres for Arches	3
8.	Formwork and Arches	24
9.	Sealant, Fixings and Fixing Equipment	4
10.	Introduction to Scale Drawing	3

Module Objectives

Module 2: 1st Fixing and Site Works

Duration: 94 hours

At the end of this module each apprentice will be able to:

No	Activity	Assessment Type	Standard Code/LO
1.1	Assess standards of work to ensure they meet the required industry/client standard	T, P	Joinery LO14
1.2	Plan tasks effectively in terms of sequencing task, research and material preparation	T	1st Fixing and Sitework LO2 2nd Fixing LO14
1.3	Define the roles of construction personnel and explain how the carpenter and joiner interacts with other personnel in the work environment	T	1st Fixing and Sitework LO4, LO9
2.1	Apply the principles of first angle orthographic projection in the generation of working drawings for the craft	P	1st Fixing and Sitework LO11
3.1	Apply the principles of timber framed construction in the erecting of pre-manufactured components to create a simulated domestic dwelling	T	1st Fixing and Sitework LO6, LO15
4.1	Calculate the area and perimeter of a given surface using appropriate formulae	T	1st Fixing and Sitework LO10
5.1	Assess requirements to construct timber ground and upper floors in accordance with Technical Guidance Documents (TGDs)	T	1st Fixing and Sitework LO5, LO14
5.2	Set out and construct timber ground floors and upper floors in accordance with Technical Guidance Documents (TGDs) and industry best practice	SD	1st Fixing and Sitework LO5, LO14
6.1	Assess the requirements to construct load/non-load bearing partitions in accordance with TGDs	Theory	1st Fixing and Sitework, LO5
6.2	Set out and construct timber non-load bearing partitions in accordance with TGD's and industry best practice	T, Sk Dem	1st Fixing and Sitework, LO14

Module Objectives

Module 2: 1st Fixing and Site Works**Duration: 94 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
7.1	Employ geometrical principles to interpret and produce line drawings of arches and define associated terminology	P	1st Fixing and Sitework, LO4, LO11, LO14
8.1	Manufacture, erect and strike formwork in accordance with TGDs and best industry practice	T, P	1st Fixing and Sitework LO4, LO14
8.2	Manufacture temporary centres for arches in accordance with TGDs and best industry practice	T, P	1st Fixing and Sitework, LO4, LO14
9.1	Identify and select the correct sealants, fixings and equipment for any given application in accordance with manufacturer's data sheets	T	1st Fixing and Sitework, LO2
10.1	Apply the concept of scale in the production of craft related scale drawings	P	1st Fixing and Sitework, LO11

Unit 1: Planning Work**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Define standards of workmanship
T	1.1.2	Assess own work against required standards
T	1.2.1	Plan work independently and as part of a team
T	1.2.2	Define the sequence of tasks and the scheduling of available equipment
T	1.2.3	Use appropriate research methods and materials required for a given task
T	1.3.1	Identify and describe the roles and responsibilities of construction personnel at different stages of construction
T	1.3.2	Describe the roles and responsibilities of a carpenter and joiner in the work environment and his/her interaction with other craft personnel

Key Learning Points

LL	1.1.1.1	Clients expectations, quality of work
LL	1.1.2.1	Identify own strengths, areas needing development and self-discipline
LL	1.2.1.1	Role of each member, team interactions
LL	1.2.2.1	Time and equipment management, sequencing of tasks
TK	1.2.3.1	Selecting of materials, prepare material and cutting lists
LL	1.3.1.1	Client, Architect, Engineer, Main Contractors, Sub-Contractor, Clerk of Works, Quantity Surveyor, Site Agent and Safety Officer
LL	1.3.2.1	Role and responsibility of a Carpenter and Joiner

Training Resources

- Classroom facilities as per general introduction

Exercises

1. Plan and sequence a project listing materials and equipment required to complete
2. Answer relevant Trainer generated questions to cover the following areas: responsibilities of construction personnel, and responsibility of a Carpenter and Joiner

Unit 2: Orthographic Projection**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| P | 2.1.1 | Correctly interpret 3-dimensional (3D) drawings of objects |
| P | 2.1.2 | Generate working drawing in first angle orthographic projection |

Key Learning Points

- | | | |
|---|---------|--|
| D | 2.1.1.1 | Conversion of 3D drawings/objects into 2D drawings |
| D | 2.1.2.1 | Elevation, plan, end view and sections |

Training Resources

- Classroom facilities as per general introduction
- Drawing boards
- Apprentice own drawing equipment
- A3 (min) drawing paper

Exercise

1. Draw an orthographic projection of geometrical solids
2. Draw an orthographic projection of framing joints

Unit 3: Timber Framed Construction**Duration: 11 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 3.1.1 | Erect timber framed buildings using appropriate methods |
| T | 3.1.2 | Determine appropriate methods of insulation |
| T | 3.1.3 | Determine appropriate methods to ensure air tightness |

Key Learning Points

- | | | |
|-------|---------|--|
| TK Sk | 3.1.1.1 | Fixing, squaring and plumbing methods |
| TK | 3.1.2.1 | Applications for different environment, e.g. roofs; walls; floors; natural and man- made materials |
| TK | 3.1.3.1 | Membrane and plaster |

Training Resources

- Classroom facilities as per general introduction
- Project areas per general introduction
- Suitable power tools
- Fixings
- Prefabricated components

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: erecting timber framed buildings, methods of insulation and air tightness
2. Assemble in-situ prefabricated wall components to simulate a building of no less than 2.4m square)

Unit 4: Perimeter and Area**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 4.1.1 | Define the formulae for calculating areas and perimeters |
| T | 4.1.2 | Apply formulae to calculate areas and perimeters |

Key Learning Points

- | | | |
|---|---------|---|
| M | 4.1.1.1 | Square, rectangle, parallelogram, trapezium, triangle, circle, semi-circle, quadrant, sector, segment, ellipse and polygons |
| M | 4.1.2.1 | Application of formulae and surface areas of geometrical solids |

Training Resources

- Classroom facilities as per general introduction

Exercise

1. Answer relevant trainer generated questions to cover the following: area and perimeter

Module 2: 1st Fixing and Site Work

Unit 5: Timber Floors**Duration: 20 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	Sketch and describe the layout and necessary precautions required for constructing a timber floor
T	5.1.2	Explain the Technical Guidance Documents (TGD) relating to timber floors
T	5.1.3	Describe ventilation, preservation and insulation methods
SD	5.2.1	Set out, cut, level and fix wall plates and fix joists
SD	5.2.2	Mark out, cut, level and fix upper floors joists
SD	5.2.3	Fix herring bone and solid bridging to joists

Key Learning Points

TK	5.1.1.1	Traditional and contemporary construction methods
TK	5.1.2.1	Spacing of supports, spacing of joists and size of joists
TK	5.1.3.1	Flow of air and damp proofing
Sk	5.2.1.1	Fixing of bearers for partially suspended floors
TW		
Sk	5.2.2.1	Setting out, cutting, levelling and fixing floor joists
TW		
Sk	5.2.3.1	Setting out, marking out, cutting and fixing bridging
TW		

Training Resources

- Classroom facilities as per general introduction
- Project area as per general introduction
- Carpentry and Joinery toolkit
- Power tools/equipment
- Timber Grade C16

Exercises

1. Answer relevant Trainer generated questions to cover the following areas: suspended and partially suspended timber floor
2. As part of a team, fit and fix wallplates, ground floor joists and solid bridging
3. As part of a team, fit and fix upper floor joists to include herring bone bridging

Unit 6: Partitions**Duration: 14 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	6.1.1	Sketch and describe the construction of load-bearing and non load-bearing partitions
T	6.1.2	Explain the Technical Guidance Documents (TGD) relating to partitions
SD	6.2.1	Set out a non-load bearing partition both pre-fabricated and in-situ
SD	6.2.2	Construct a non-load bearing partition both pre-fabricated and in-situ

Key Learning Points

TK	6.1.1.1	Traditional methods and contemporary methods
TK	6.1.2.1	Timber stud partitions, metal stud partitions, block partitions and fire precautions
Sk	6.2.1.1	Setting out and marking out partitions
Sk	6.2.2.1	Erecting, plumbing and openings for partitions

Training Resources

- Classroom facilities as per general introduction
- Project area as per general introduction
- Carpentry and joinery toolkit
- Power tools/equipment
- Timber Grade C16

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: load-bearing and non load-bearing partitions
2. As part of a team construct an in-situ partition and retrofit an opening into same
3. As part of a team erect a pre-manufactured partition to include an opening

Unit 7: Centres for Arches**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| P | 7.1.1 | Identify types of arches and define associated terminology |
| P | 7.1.2 | Use geometrical principles to draw line diagrams of arches |

Key Learning Points

- | | | |
|----|---------|--|
| TK | 7.1.1.1 | Segmental, semi-circular, gothic, elliptical arches, rise, span, springing line and arc arches |
| D | 7.1.2.1 | Compass, trammel, intersecting lines, concentric circle and focal points |

Training Resources

- Classroom facilities as per general introduction
- Drawing boards
- Apprentice own drawing equipment
- A3 (min) drawing paper

Exercises

1. Answer relevant Trainer generated questions to cover the following areas: arches and associated terminology
2. Draw segmental, semi-circular, gothic and elliptical arches

Module 2: 1st Fixing and Site Work

Unit 8: Formwork and Arches**Duration: 24 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	8.1.1	Explain the factors affecting the construction of formwork for beams, walls, slabs and columns
T	8.1.2	Erect formwork for a concrete column
P	8.1.3	Manufacture formwork for a precast component
T	8.2.1	Describe methods of erecting temporary centres for arches
P	8.2.2	Manufacture centres for arches

Key Learning Points

TK	8.1.1.1	Hydrostatic pressure, curing times, steel reinforcing, concrete finishes and release agents
Sk	8.1.2.1	Setting out, squaring, plumbing, bracing and ranging a column
Sk	8.1.3.1	Setting out; marking out; finish; reusability precast formwork
Sk	8.2.1.1	Setting out, plumbing, levelling, supporting and bracing for temporary arches
Sk	8.2.2.1	Marking out, solid method, built up method for centre for arches

Training Resources

- Classroom facilities as per general introduction
- Workshop facilities as per general introduction
- Project area as per general introduction
- Column clamps, adjustable braces, levels and power tools
- Forms, timber and plywood

Exercises

1. Answer relevant Trainer generated questions to cover the following areas: formwork, centres for arches
2. As part of a team, erect a minimum of three in-situ formwork columns
3. Manufacture formwork for a precast component
4. Set out centres for arches

Unit 9: Sealants, Fixings and Fixing Equipment**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 9.1.1 | Explain where sealants are used |
| T | 9.1.2 | Identify the correct sealants and methods of application |
| T | 9.1.3 | Identify and describe types of fixings and their uses |
| T | 9.1.4 | Choose correct equipment when using different types of fixings |

Key Learning Points

- | | | |
|----|---------|---|
| TK | 9.1.1.1 | Surfaces, joints and limitations of use |
| TK | 9.1.2.1 | Mastic-based, silicone-based and use of sealant equipment |
| TK | 9.1.3.1 | Nails, screws, bolts, concrete fixings, dry wall fixings and patent fixings |
| TK | 9.1.4.1 | Hammer, screw driver, nail gun, screw gun, SDS drill and ballistic gun |

Training Resources

- Classroom facilities as per general introduction
- Examples of sealants/sealant gun
- Examples of fixings/fixing equipment

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: sealants and fixings

Unit 10: Introduction to Scale Drawing**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 10.1.1 Apply the principles of scale drawing
- P 10.1.2 Demonstrate the use of a scale rule

Key Learning Points

- D 10.1.1.1 Concept of scale and subdivision of units
- D 10.1.2.1 Need for accuracy: scales 1:2,1:5,1:10

Training Resources

- Classroom facilities as per general introduction
- Drawing boards
- Apprentice own drawing equipment
- A3 (min) drawing paper

Exercise

1. Produce scale drawings of the same geometrical shape in different scales
2. Produce scale drawings of construction components to scale

Learning Units for Module 3

Module 3: Timber Roofs**Duration: 100 hours**

Unit No.		Duration Hours
1.	Sketching	3
2.	Types of Roofs	4
3.	Trigonometry	6
4.	Roofing – Marking Out Methods	3
5.	Cut Roof Construction	62
6.	Trussed Roof Construction	22

Module Objectives

Module 3: Timber Roofs**Duration: 100 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Define the methods of producing sketches and demonstrate how sketches can be used as a means to communicate information between craft personnel	T	Timber Roofs, LO9
2.1	Assess the advantages and disadvantages of the varying methods of timber roof construction with reference to the TGD's	T	Timber Roofs, LO1
3.1	Define and apply the fundamentals of trigonometry as required by the craft	T	Timber Roofs, LO11
3.2	Define and apply Pythagoras Theorem as required by the craft	T	Timber Roofs, LO11
4.1	Demonstrate a variety of methods used to mark out the rafters required to construct a cut roof	T	Timber Roofs, LO2
5.1	Construct a cut double roof in accordance with best industry practice and the TGD's	T	Timber Roofs, LO12
5.2	Describe the loads placed on a roof structure and the requirements for ventilation of the structure	T	Timber Roofs, LO3, LO6
6.1	Construct a truss roof in accordance with manufacturer's data sheet and the TGD's	T	Timber Roofs, LO13
6.2	Describe the requirements of a roof rainwater system	T	Timber Roofs, LO8

Module 3: Timber Roofs

Unit 1: Sketching**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 1.1.1 | State the reasons for sketching |
| T | 1.1.2 | Describe the principal methods of sketching |
| T | 1.1.3 | Produce correctly proportioned sketch drawings |

Key Learning Points

- | | | |
|-----|---------|---|
| COM | 1.1.1.1 | Sketching as a means of communication |
| Sk | 1.1.2.1 | Graph/grid paper, freehand, use of set square and rolling ruler |
| D | 1.1.3.1 | Application of method and achieving correct proportions |

Training Resources

- Classroom facilities as per general introduction
- Set-square/ruler
- Graph/grid paper, drawing paper

Exercise

1. Produce a range of detailed roof sketches to include the labelling of components

Unit 2: Types of Roofs**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Assess the most appropriate method of construction for a roof based on structural requirements
T	2.1.2	Provide detailed sketches as a means of communicating technical information
T	2.1.3	Describe the function of structural members for a roof
T	2.1.4	Outline the TGDs in relation to roofs

Key Learning Points

TK	2.1.1.1	Flat, lean-to, couple, couple close, collar and tie, single and double, cut roof, truss roofs, advantage and disadvantages of each roof type
Sk	2.1.2.1	Technical sketches
TK	2.1.3.1	Rafters, purlins, collar ties, hangers and struts
TK	2.1.4.1	TGDs Part A and D

Training Resources

- Classroom facilities as per general introduction
- Set-square/ruler
- Graph/grid paper, drawing paper
- Technical Guidance Documents

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: method of construction, structural members, TGDs

Unit 3: Trigonometry**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Define the fundamental elements of trigonometry
T	3.1.2	Determine lengths based on angles and measurements
T	3.2.1	Define Pythagoras's theorem
T	3.2.2	Apply Pythagoras's theorem to craft related calculations

Key Learning Points

M	3.1.1.1	Trigonometric ratios, sine, cosine and tangent
M	3.1.2.1	Trigonometry to solve triangles
M	3.2.1.1	Hypotenuse; right angle triangle
M	3.2.2.1	Roofing square

Training Resources

- Classroom facilities as per general introduction

Exercise

1. Answer relevant Trainer generated questions to cover the following areas:
Trigonometry: Pythagoras's Theorem

Unit 4: Marking Out Methods**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 4.1.1 | Describe the methods of marking-out a common rafter |
| T | 4.1.2 | Mark out a common rafter using those methods |

Key Learning Points

- | | | |
|----|---------|---|
| TK | 4.1.1.1 | Traditional and contemporary; roofing squares, site method and calculation method |
| TK | 4.1.2.1 | Marking out tools for roofs |

Training Resources

- Classroom and workshop facilities as per general introduction
- Roofing squares/setting out boards
- Timber Grade C16

Exercise

1. Mark out a full size common rafter using each method

Unit 5: Cut Roof Construction**Duration: 62 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	Describe the structure of a cut roof
T	5.1.2	Determine rafter size and position in a roof
T	5.1.3	As part of a team, construct a cut gable roof including eaves and verge details
T	5.1.4	As part of a team, cut and fix roof membranes and laths
T	5.1.5	Trim an opening in a cut roof
T	5.2.1	Distinguish between live and dead loads
T	5.2.2	Summarise the ventilation requirements for roofs

Key Learning Points

TK	5.1.1.1	Wallplates, rafters, purlins ceiling joists, hangers, struts, soffit and fascia in wood and plastic
TK M	5.1.2.1	Standards (IS 444)
TK	5.1.2.2	Roof covering and ceiling covering
TK	5.1.3.1	Setting out, marking out, cutting and fixing
TK	5.1.4.1	Types of membrane, size and spacing of laths
TK	5.1.5.1	Chimney, window, flashing support and ceiling finish
TK	5.2.1.1	Climate and weather conditions, weight of covering
TK	5.2.2.1	Size and spacing of vents, condensation

Training Resources

- Workshop and project area facilities as per general introduction
- Roofing squares/setting out boards
- Carpentry and joinery toolkit
- Timber Grade C16

Exercise

1. Set out, mark out and erect a number of rafters on a scaled roof
2. As part of a team, construct a cut gable double roof to include an opening, eaves, verge, membrane and laths

 Module 3: Timber Roofs

Unit 6: Trussed Roof Construction**Duration: 22 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	6.1.1	Sketch the different types of truss rafters and identify their structural members
T	6.1.2	Describe the correct lifting methods when placing truss rafters on wall plates
T	6.1.3	Describe the correct methods for erecting truss rafters
T	6.1.4	Describe the correct methods for the maintenance and storage of truss rafters on site
T	6.1.5	Describe the correct method for erecting truss rafters around chimneys and openings
T	6.1.6	Identify the correct position of a frame to support a water tank
	6.1.7	Secure truss rafters in position and brace
T	6.2.1	Describe the correct method for erecting and fixing different types of guttering
T	6.2.2	Identify where down pipes should be placed on buildings
T	6.2.3	Describe methods of repairing and maintaining gutters

Key Learning Points

TK	6.1.1.1	Fink, Fan and Howe
TK	6.1.2.1	Manual and Mechanical lifting methods
TK	6.1.3.1	Timber Research and Development Association (TRADA)
TK	6.1.4.1	Manufacturer's data sheets: horizontal/vertical storage
TK	6.1.5.1	On site fabrication: bobtail truss
TK	6.1.6.1	Node point: correct distribution of load
Sk	6.1.7.1	Truss clips and diagonal bracing
T	6.2.1.1	PVC, aluminium and cast iron
T	6.2.2.1	Outlets, surface water gully trap
T	6.2.3.1	Leaf guards, sealants and bitumen repair tape

Training Resources

- Classroom/workshop and project area facilities as per general introduction
- Carpentry and joinery toolkit
- Truss rafters, truss clips, timber braces
- Gutters and fittings

Exercise

1. As part of a team, construct a truss roof on a simulated domestic building containing a trimmed opening, support for a water storage tank and a functional guttering system in accordance with best industry practice and the TGDs

Learning Units for Module 4

Module 4: Joints in Moulded Timber**Duration: 42 hours**

Unit No.		Duration Hours
1.	Ploughed, Rebated and Scribed Joints	25
2.	Surface Planing Machine	6.5
3.	Thickening Machine	3.5
4.	Hollow Chisel Morticing Machine	7

 Module Objectives

Module 4: Module Title**Duration: 42 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Manufacture joints in moulded timber using portable power and hand tools	T, P	Joinery LO5
2.1	Identify the parts and safety devices of the timber surface planing machine	T	Joinery LO1
2.2	Operate under supervision the surface planing machine to prepare timber to specified sizes	T, SD	Joinery LO8
3.1	Identify the parts and safety devices of the timber thickening machine	T	Joinery LO1
3.2	Operate under supervision the timber thickening machine to prepare timber to specified sizes	T	Joinery LO8
4.1	Identify the parts and safety devices of the hollow chisel mortice machine	T	Joinery LO1
4.2	Operate the hollow chisel mortice machine to cut mortices to specified sizes	P, SD	Joinery LO7

Module 4: Joints in Moulded Timber

Unit 1: Ploughed, Rebated and Scribed Joints**Duration: 25 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 1.1.1 | Identify the different types of joints in ploughed, rebated and scribed timber and where they are used |
| T | 1.1.2 | Assess appropriate wood glues for use in different joinery applications |
| P | 1.1.3 | Mark out, cut and construct joints in ploughed, rebated and scribed timber using hand and power tools |

Key Learning Points

- | | | |
|----|---------|--|
| TK | 1.1.1.1 | Mortice and tenon; haunched mortice and tenon |
| TK | 1.1.2.1 | PVA, casein resin, method of application, types of surfaces to which glue is applied, e.g. wood, plastic and metal |
| Sk | 1.1.3.1 | Marking out, cutting and assembling procedures and use of fixed/portable power router |

Training Resources

- Workshop facilities as per general introduction
- Carpentry and joinery toolkit
- Fixed/portable power router
- Timber Redwood

Exercise

1. Mark out and manufacture mortice and tenon joints with grooved rebated and moulded timber
2. Manufacture a joint with a diminished shoulder
3. Manufacture a frame of no less than 400mm square to contain mortice and tenon joints with groves, rebates and mouldings

Unit 2: Surface Planing Machine**Duration: 6.5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Explain the functions of a surface planing machine
T	2.1.2	Explain the functions of the various parts of a surface planing machine
T	2.1.3	Identify hazards of the Surface Planing Machine whilst applying safe working and housekeeping practices
SD	2.2.1	Operate the Surface Planing Machine under supervision to prepare timber to specified sizes
T	2.2.2	Identify the correct blades to be used when cutting different materials
SD	2.2.3	Develop a method statement and risk assessment for operating a Surface Planing Machine

Key Learning Points

TK	2.1.1.1	Typical applications
TK H	2.1.2.1	Correct method of operating locking levers and device and correct position of safety guards
TK H	2.1.3.1	Blade sizes, guarding and stopping speeds
TK	2.2.1.1	Operating position, extraction and start-up procedures
TK H	2.2.1.2	Safety procedures relating to planing of various materials
Sk H	2.2.2.1	RPM and table position
H&S	2.2.3.1	Hazards relating to the Surface Planing Machine, safe work practices and housekeeping
COM	2.2.3.2	Report writing

Training Resources

- Machine workshop facilities as per general introduction
- Surface Planing Machine
- Selection of blades, push stick
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: functions of a Surface Planing Machine, PUWER, related hazards, saw blades
2. Operate under supervision a Surface Planing Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Surface Planing Machine

Unit 3: Thickening Machine**Duration: 3.5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Explain the functions of a Thickening Machine
T	3.1.2	Explain the function of the various parts of a Thickening Machine
T	3.1.3	Identify hazards of the Thickening Machine whilst applying safe working and housekeeping practices
SD	3.2.1	Operate the Thickening Machine under supervision to prepare timber to specified sizes
SD	3.2.2	Develop a method statement and risk assessment for operating a Thickening Machine

Key Learning Points

TK	3.1.1.1	Typical applications
TK H	3.1.2.1	Correct method of operating locking levers and device and the correct position of safety guards
TK H	3.1.3.1	Blade sizes, guarding and stopping speeds
TK	3.2.1.1	Operating position, extraction and start-up procedures
Sk H	3.2.1.2	Safety procedures relating to planing of various materials
H&S	3.2.2.1	Hazards relating to the Thickening Machine and safe work practices housekeeping
COM	3.2.2.2	Report writing

Training Resources

- Machine workshop facilities as per general introduction
- Thickening machine
- Selection of blades
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: functions of a Thickening Machine, PUWER, related hazards and saw blades
2. Operate under supervision a Thickening Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Thickening Machine

Module 4: Joints in Moulded Timber

Unit 4: Hollow Chisel Morticing Machine Duration: 7 hours**Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	4.1.1	Explain the functions of a Hollow Chisel Morticing Machine
T	4.1.2	Explain the functions of the various parts of a Hollow Chisel Morticing Machine
T	4.1.3	Identify hazards of the Hollow Chisel Morticing machine whilst applying safe working and housekeeping practices
P	4.2.1	Operate the Hollow Chisel Morticing Machine to cut mortices to specified sizes
SD	4.2.2	Develop a method statement and risk assessment for operating a Hollow Chisel Morticing machine

Key Learning Points

TK	4.1.1.1	Typical applications
TK H	4.1.2.1	Correct method of operating locking levers and device and correct position of safety guards
TK H	4.1.2.2	Chisel sizes, guarding and stopping speeds
TK	4.1.2.3	Operating position, extraction and start-up procedures
Sk H	4.2.1.1	Safety procedures relating to morticing of various materials
H&S	4.2.2.1	Hazards relating to the Hollow chisel morticing Machine, safe work practices and housekeeping
COM	4.2.2.2	Report writing

Training Resources

- Machine workshop facilities as per general introduction
- Hollow Chisel Morticing Machine
- Selection of chisels and augers
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: functions of a Hollow Chisel Morticing Machine, PUWER, related hazards and saw blades
2. Operate under supervision a Hollow Chisel Morticing Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Hollow Chisel Morticing Machine

Learning Units for Module 5

Module 5: Joinery**Duration: 136 hours**

Unit No.		Duration Hours
1.	Panel Sawing	4
2.	Narrow Band Saw Machine	2
3.	Sanding Machine	2
4.	Scale Drawing – Joinery	3
5.	Door Manufacturing	40
6.	Window Manufacturing	32
7.	Stair Manufacturing	42
8.	Pictorial Drawing	11

Module Objectives

Module 5: Joinery**Duration: 136 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Describe the parts and safety devices of the timber Panel Sawing Machine	T	Joinery, LO1
1.2	Operate under supervision the Panel Sawing machine to prepare timber to specified sizes	T, SD	Joinery, LO8
2.1	Identify the parts and safety devices of the Narrow Bandsaw Machine	T	Joinery, LO1
2.2	Operate under supervision the surface Narrow Bandsaw Machine to prepare timber to specified sizes	T, SD	Joinery, LO8
3.1	Identify the parts and safety devices of the Sanding Machine	T	Joinery, LO1
3.2	Operate under supervision the Sanding Machine to prepare timber to specified sizes	T, SD	Joinery, LO8
4.1	Read, interpret and produce scale drawings of joinery components as a means of communicating technical information	P	Joinery, LO6
5.1	Identify and describe various types, designs and methods of domestic door construction	T	Joinery, LO2
5.2	Manufacture an entrance door for a domestic dwelling	SD	Joinery, LO7, LO9, LO14
6.1	Identify and describe various types, designs and methods of window construction	T	Joinery, LO2
6.2	Manufacture a casement window containing an opening sash	P	Joinery, LO7, LO10, LO14
7.1	Identify and describe various types, designs and methods of domestic stairs construction	T	Joinery, LO2
7.2	Manufacture a closed string stairs containing a balustrade in accordance with TGD's	SD	Joinery, LO7, LO11, LO14
8.1	Interpret and produce pictorial drawings using the principles of oblique, isometric and planometric projection	T, P	1st Fixing and Sitework, LO11

Module 5: Joinery

Unit 1: Panel Sawing**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Explain the functions of a Panel Sawing Machine
T	1.1.2	Explain the function of the various parts of a Panel Sawing Machine
T	1.1.3	Identify hazards of the Panel Sawing Machine whilst applying safe working and housekeeping practices
SD	1.2.1	Operate the Panel Sawing Machine under supervision to cut timber to specified sizes
T	1.2.2	Identify the correct blades to be used when cutting different materials
SD	1.2.3	Develop a method statement and risk assessment for operating a Panel Sawing Machine

Key Learning Points

TK	1.1.1.1	Purpose of a Panel Sawing Machine
TK H	1.1.2.1	Main parts of a Panel Sawing Machine
TK H	1.1.3.1	Method of operating locking levers and devices
TK	1.2.1.1	PUWER
Sk H	1.2.1.2	Operating of machine
T	1.2.2.1	Saw blades; T.C.T, H.S, pitch and teeth
H&S	1.2.3.1	Identification of hazards relating to the Panel Sawing Machine
COM	1.2.3.1	Report writing

Training Resources

- Machine workshop facilities as per general introduction
- Panel Sawing Machine
- Selection of blades
- Push stick
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: functions of a Panel Sawing Machine, PUWER, related hazards and saw blades
2. Operate under supervision a Panel Sawing Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Panel Sawing Machine

 Module 5: Joinery

Unit 2**Narrow Band Saw Machine****Duration: 2 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Explain the functions of a Narrow Band Saw Machine
T	2.1.2	Explain the function of the various parts of a Narrow Band Saw Machine
T	2.1.3	Identify hazards of the Narrow Band Saw Machine whilst applying safe working and housekeeping practices
SD	2.2.1	Operate the Narrow Band Saw Machine under supervision to cut timber to specified sizes
T	2.2.2	Identify the correct blades to be used when cutting different materials
SD	2.2.3	Develop a method statement and risk assessment for operating a Narrow Band Saw Machine

Key Learning Points

TK	2.1.1.1	Typical applications
TK H	2.1.2.1	Correct method of operating locking levers and device and correct position of safety guards
TK H	2.1.3.1	Blade sizes, guarding and stopping speeds
TK	2.2.1.1	Operating position, extraction and start-up procedures
Sk H	2.2.1.2	Safety procedures relating to cutting of various materials
TK	2.2.2.1	RPM and table position
H&S		
H&S	2.2.3.1	Hazards relating to the Narrow Band Saw Machine, safe work practices and housekeeping
COM	2.2.3.2	Report writing

Training Resources

- Machine workshop facilities as per general introduction
- Narrow Band Saw Machine
- Selection of blades, push stick
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: functions of a Narrow Band Saw Machine, PUWER, related hazards and saw blades
2. Operate under supervision a Narrow Band Saw Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Narrow Band Saw Machine

 Module 5: Joinery

Unit 3: Sanding Machine**Duration: 2 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Explain the functions of a Sanding Machine
T	3.1.2	Explain the function of the various parts of a Sanding Machine
T	3.1.3	Identify hazards of the Sanding Machine whilst applying safe working and housekeeping practices
SD	3.2.1	Operate the Sanding Machine under supervision to sand timber to specified finish
T	3.2.2	Identify the correct belts to be used when sanding different materials
SD	3.2.3	Develop a method statement and risk assessment for operating a Sanding Machine

Key Learning Points

TK	3.1.1.1	Typical applications
TK H	3.1.2.1	Correct method of operating locking levers and device and correct position of safety guards
TK H	3.1.3.1	Belt sizes, guarding and stopping speeds
TK	3.2.1.1	Operating position, extraction and start-up procedures
Sk H	3.2.1.2	Safety procedures relating to sanding of various materials
TK	3.2.2.1	RPM and table position
H&S		
H&S	3.2.3.1	Hazards relating to the Sanding Machine, safe work practices and housekeeping
COM	3.2.3.2	Report writing

Training Resources

- Machine workshop facilities as per general introduction
- Sanding Machine
- Selection of belts
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: functions of a Sanding Machine, PUWER, related hazards and belts
2. Operate under supervision a Sanding Machine in a safe manner to produce and stack material from a given cutting list
3. Develop a method statement and produce a risk assessment on the safe operation of the Sanding Machine

Unit 4: Scale Drawing – Joinery**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 4.1.1 Produce drawings of joinery components to scale
- P 4.1.2 Interpret detailed joinery drawings for the purpose of setting out

Key Learning Points

- D 4.1.1.1 Use of drawing equipment and instruments
- D 4.1.2.1 Deduction of information and reading scale

Training Resources

- Workshop facilities
- Carpentry and Joinery toolkit
- Equipment/power tools
- Materials/Timber

Exercise

1. Produce drawings of joinery components to scale

Unit 5: Door Manufacturing**Duration: 40 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	List the common designs of domestic doors
T	5.1.2	Describe appropriate methods for the manufacture of traditional and contemporary doors
SD	5.2.1	Set out and construct an entrance door for a domestic dwelling

Key Learning Points

TK	5.1.1.1	Panel, flush and glazed doors
TK	5.1.2.1	Solid, engineered, framed; types of sizes, material used for constructing panels and glazing
Sk	5.2.1.1	Setting out, marking out, assembling, cramping, wedging, fixing panels/glazing, sanding and finishing

Training Resources

- Classroom and workshop facilities as per general introduction
- Carpentry and Joinery toolkit
- Power tools/sash cramps
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: design and methods for the door manufacture
2. Manufacture a full-sized glazed and panelled door to local specifications

Module 5: Joinery

Unit 6: Window Manufacturing**Duration: 32 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	6.1.1	List the common designs of domestic windows
T	6.1.2	Describe appropriate methods for the manufacture of traditional and contemporary domestic windows
T	6.1.3	Describe appropriate methods for the manufacture of traditional and contemporary opening sash
T	6.1.4	Describe different types of weather sealing and window fittings
P	6.2.1	Set out and manufacture a casement window containing an open sash

Key Learning Points

TK	6.1.1.1	Standard casement, storm-proof, pivot, horizontal and vertical sliding
TK	6.1.2.1	Engineered, framed, types of timber and sizes, types of joints, single and double glazing
TK	6.1.3.1	Engineered, framed, types of timber and sizes and types of joints
TK	6.1.4.1	Sealing systems, hinging systems and locking systems
Sk	6.2.1.1	Setting out, marking out, assembling, cramping, wedging, sanding and finishing and ironmongery

Training Resources

- Classroom and workshop facilities as per general introduction
- Carpentry and Joinery toolkit
- Power tools/sash cramps
- Timber Redwood

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: design and methods of Window manufacture
2. Manufacture a full-size casement window containing an opening sash to local specifications

Unit 7: Stair Manufacturing**Duration: 42 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	7.1.1	List the common designs of stairs
T	7.1.2	Describe appropriate methods for the manufacture of stairs
T	7.1.3	Calculate rise, going, pitch and number of steps for stairs
T	7.1.4	Outline the TGD's relating to stairs
SD	7.2.1	Manufacture a closed string staircase with a balustrade

Key Learning Points

TK	7.1.1.1	Straight flight, Quarter turn and Half turn
TK	7.1.2.1	Closed string and Cut string; joints riser to tread, step to string and newel to string
M	7.1.3.1	$2R+G = 550 < 700$ mm, maximum pitch and maximum steps
T	7.1.4.1	TGDs Part K
Sk	7.2.1.1	Setting out, marking out, step jig, use of portable power router, assembling, cramping, wedging, sanding and finishing

Training Resources

- Classroom and workshop facilities as per general introduction
- Carpentry and Joinery toolkit
- Power tools/sash cramps
- Timber Redwood and MDF

Exercise

1. Answer relevant Trainer generated questions to cover the following areas: design and methods of manufacture
2. Manufacture a closed string stairs containing three risers and a balustrade

Unit 8: Pictorial Drawing**Duration: 11 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	8.1.1	Explain the principles of oblique, isometric and planometric projection
P	8.1.2	Draw geometrical solids in oblique, isometric and planometric projection
P	8.1.3	Produce oblique, isometric and planometric drawings from given orthographic projections

Key Learning Points

T	8.1.1.1	3D
D	8.1.2.1	Application of principles
D	8.1.3.1	Use of drawing equipment

Training Resources

- Classroom facilities as per general introduction
- Drawing boards
- Apprentice own drawing equipment
- A3 (min) drawing paper

Exercise

1. Produce drawings in oblique, isometric and planometric from given orthographic projection
2. Produce drawings of door and window joints in oblique, isometric and planometric projection

Learning Units for Module 6

Module 6: 2nd Fixing Activities**Duration: 106 hours**

Unit No.		Duration Hours
1.	Door Frames	15.5
2.	Door Hanging	40
3.	Lining, Architraves and Skirting	22.5
4.	Fitting Stairs	5
5.	Handrailing	5
6.	Flooring	9
7.	Calculating Material Requirements	6
8.	Scale Drawing – 2nd Fixing	3

Module Objectives

Module 6: 2nd Fixing Activities**Duration: 106 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Describe the function and select the appropriate method of manufacture and fitting of a rebated door frame	T, P	2nd Fixing ,LO6 LO12
2.1	Demonstrate the knowledge and skills required to install an internal and external door using the appropriate hand and power tools	T, P	2nd Fixing, LO6, LO12, LO14
3.1	Demonstrate the knowledge and skills required to install timber trims to a high standard of finish in a site environment	T, P	2nd Fixing, LO5, LO11, LO14
4.1	Demonstrate the knowledge and skills required to install a stairs in accordance with the TGDs in a site environment	T, SD	2nd Fixing, LO1, LO5, LO13
5.1	Demonstrate the knowledge and skills required to install handrailing in accordance with the TGDs in a site environment	T	2nd Fixing, LO1, LO11, LO14
6.1	Demonstrate the knowledge and skills to select and install timber flooring to a high standard of finish in a site environment	T, SD	2nd Fixing, LO5, LO11
7.1	Use mathematical principles to calculate the quantity of materials required to complete a craft based task	T	2nd Fixing, LO9
8.1	Demonstrate the knowledge and skill to read, interpret and produce scale drawings of 2nd fixing components as a means of communicating technical information	P	2nd Fixing, LO10

Module 6: 2nd Fixing Activities

Unit 1: Door Frames**Duration: 15.5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Describe the function of door frames and methods of manufacture
P	1.1.2	Set out and manufacture a door frame
P	1.1.3	Fit a door frame in a site environment

Key Learning Points

TK	1.1.1.1	Function of door frames
TK	1.1.1.2	Methods of construction of door frame
Sk	1.1.2.1	Methods of assembly
Sk	1.1.2.2	Bracing and squaring
Sk	1.1.3.1	Plumbing and sighting
Sk	1.1.3.2	Fixing door frame
Sk	1.1.3.3	Types of anchors and methods of fixing to walls and partitions

Training Resources

- Project area
- Carpentry and Joinery toolkit
- Equipment/ power tools
- Materials/timber

Exercise

1. Set out, construct and fit in place, an internal and an external door frame in an appropriate work space (minimum frame size 2100mm x 900m)

Unit 2: Door Hanging**Duration: 40 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 2.1.1 | Describe the method of hanging internal and external doors |
| T | 2.1.2 | Identify types of door furniture for internal and external doors and describe methods of fitting |
| | 2.1.3 | Fit and hang internal and external doors to include all required furniture |

Key Learning Points

- | | | |
|----|---------|--|
| TK | 2.1.1.1 | Methods of hanging doors |
| TK | 2.1.1.2 | The use of hand tools to a hang door |
| TK | 2.1.2.1 | Types of door furniture |
| TK | 2.1.2.2 | Method of fitting door furniture |
| Sk | 2.1.3.1 | Fit and hang doors to work area using hand/ power tools and hinge/ lock jigs |
| Sk | 2.1.3.2 | Quality of finish, i.e. door closing properly and correct margin |

Training Resources

- Project area
- Carpentry and Joinery toolkit
- Equipment/power tools
- Materials/door and furniture

Exercise

1. Fit and hang full size internal and external doors in a frame with all required furniture (minimum frame size 2100mm x 900m)

Unit 3: Linings, Architraves and Skirting**Duration: 22.5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Describe the function of timber trimmings
P	3.1.2	Manufacture template for fitting door saddles
P	3.1.3	Fit and fix door saddle and architrave, linings and skirting to floor of work area

Key Learning Points

TK	3.1.1.1	Function of linings, stops, saddle board, architraves, skirting and plinth block
Sk	3.1.2.1	Template manufacture
Sk	3.1.3.1	Fitting and fixing of door saddle
Sk	3.1.3.2	Methods of fitting and fixing linings, architrave and skirting
Sk	3.1.3.3	Scribing joint
Sk	3.1.3.4	Mitring joint

Training Resources

- Project area
- Carpentry and Joinery toolkit
- Materials/Timber trims

Exercise

1. Fit and fix skirting to walls of workspace to include internal and external corners
2. Fit and fix door saddle and architrave to door frame
3. Fit and fix a lining to an opening in a timber stud partition

Unit 4: Fitting Stairs**Duration: 5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	4.1.1	Describe the methods of fitting a stairs
SD	4.1.2	Fit a pre-manufactured stairs in-situ

Key Learning Points

TK	4.1.1.1	Fitting of stairs
Sk	4.1.2.1	Securing newels
Sk	4.1.2.2	Carriage pieces
Sk	4.1.2.3	Securing the wall string

Training Resources

- Project area
- Carpentry and Joinery toolkit
- Equipment/power tools
- Materials/Staircase

Exercise

1. Fit a stairs from a floor level to the next floor level

Module 6: 2nd Fixing Activities

Unit 5: Handrailing**Duration: 5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 5.1.1 | Identify and describe fitting, fixing and jointing methods of handrails |
| T | 5.1.2 | Sketch handrail profiles |
| T | 5.1.3 | Summarise the TGD's relating to handrails |

Key Learning Points

- | | | |
|----|---------|---|
| TK | 5.1.1.1 | Handrail jointing |
| TK | 5.1.1.2 | Fitting and fixing methods |
| TK | 5.1.2.1 | Sketching profiles and jointing of handrail |
| TK | 5.1.3.1 | TGD's relating to handrails |

Training Resources

- Classroom facilities

Exercise

1. Sketch sections of handrails at joints showing jointing methods

Unit 6: Flooring**Duration: 9 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|----|-------|--|
| T | 6.1.1 | Identify different types of flooring and advantages and disadvantages of each |
| T | 6.1.2 | Describe the method of laying and fixing traditional and contemporary flooring |
| SD | 6.1.3 | Cut and fix tongue and grooved flooring and sheet flooring |

Key Learning Points

- | | | |
|----|---------|---|
| TK | 6.1.1.1 | Types of flooring |
| TK | 6.1.2.1 | Methods of laying and fixing timber flooring. Advantages and disadvantages of each type of flooring |
| Sk | 6.1.3.1 | Cutting and fixing tongued and grooved flooring. Cutting and fixing sheet flooring |

Training Resources

- Project area
- Carpentry and Joinery toolkit
- Equipment/power tools/flooring cramps
- Materials/flooring

Exercise

1. Fit and fix tongue and grooved flooring to joists using flooring cramps
2. Fit and fix sheet flooring

Unit 7: Calculating Material Requirements Duration: 6 hours**Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- T 7.1.1 Calculate the amount of materials required for a given project

Key Learning Points

- TK M 7.1.1.1 Calculate materials requirements
TK M 7.1.1.2 Incorporate waste allowance
TK M 7.1.1.3 Conversion to cubic quantities

Training Resources

- Classroom facilities

Exercise

1. Calculate the quantity of flooring required to floor a room, given waste allowance and board size

Module 6: 2nd Fixing Activities

Unit 8: Scale Drawing – 2nd Fixing**Duration: 3 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 8.1.1 Produce drawings of 2nd fixing components to scale
- P 8.1.2 Interpret detailed 2nd fixing drawings

Key Learning Points

- D 8.1.1.1 Produce scale drawings
- D 8.1.2.1 Interpretation of detailed drawings

Training Resources

- Classroom facilities
- Drawing equipment

Exercise

1. Produce drawings of 2nd fixing components to scale

Learning Units for Module 7

Module 7: Communications & Team Leadership**Duration: 50 hours**

Unit No.		Duration Hours
1.	Information Technology Skills (I.T.)	20
2.	Reflective Practice	5
3.	Introduction to Project Planning	5
4.	Introduction to Report Writing	5
5.	Teamwork	15

Module Objectives

Module 7: Communications & Team Leadership Duration: 50 hours

At the end of this module each apprentice will be able to:

Unit	Minimum Intended Programme Learning Outcomes (MIPLO)	Assessment Type	MIPLO
2	Demonstrate the ability to engage in reflective practice to develop independent learning, concepts, ideas and theories associated with reflective practice.	SD	1
1	Demonstrate under pinning knowledge of a range of information technologies to include word power point, excel email in a variety of media platforms and the polices and principles relevant to a vocational area.	SD	2
5	Research the elements and stages of team development to include different kinds of teams, a multi-team environment, the characteristics of an effective team and the need for different roles for the individuals. Participate in formal and informal working groups, to include leading or facilitating, note taking, summarising discussion, agreeing outcomes and action points setting SMART objectives.	SD	3
1, 4	Use drafting, editing and proofreading skills and the correct conventions of language usage including spelling. Punctuation and syntax to produce formal written communications relevant to particular vocational areas, to include report, email, and basic excel and word.	SD	4
N/A	Evaluate in practical terms the elements of legislation that must be observed in a personal and or work context, to include health safety and welfare at work and communications-related legislation and the responsibilities that apply when working in a supervisory capacity.	SD	5
3	Lead progress on a work plan, to include taking corrective action to ensure successful completion of the plan, on-going monitoring of progress and evaluation Work independently and or in a supervisory capacity, displaying qualities such as assertiveness, self-confidence, and tact.	SD	6
N/A	Evaluate the concepts of leadership and management, different leadership and management styles and the principal theories that underpin this Demonstrate team leadership, to include team building supporting team members at different stages of team development.	SD	7

Unit 1 Information Technology Skills (I.T.) Duration: 20 hours**Learning Outcomes**

By the end of this unit each apprentice will be able to:

- | | | |
|----|-----|--|
| SD | 1.1 | Explain Word Processing common uses |
| SD | 1.2 | Demonstrate basic skills in the use of a variety of Information technology/(I.T.) packages |
| SD | 1.3 | Write a Formal Letter of Application for a job |
| SD | 1.4 | Create Curriculum Vitae |

Key Learning Points

- | | | |
|----|-------|---|
| TK | 1.1.1 | Word features, key terminology, toolbar ribbons and icons |
| SK | 1.1.2 | Use of Word, PPT, Excel, email, Internet, C.V |
| SK | 1.1.3 | Layout, structure, sign off, formal letter |
| SK | 1.1.4 | Layout, order Career objective, job description, match CV |

Training Resources

- Classroom setting
- Pens, paper
- PC and Internet access

Exercise

1. Prepare a short report on the impact of social media in business
2. Compile a C.V
3. Create and send an email with an attachment

Unit 2 Reflective Practice**Duration: 5 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

- | | | |
|----|-----|--|
| SD | 2.1 | Explain the benefits of reflection |
| SD | 2.2 | Discuss the principals of reflection |
| SD | 2.3 | State the stages in the reflection process |
| SD | 2.4 | Use reflection writing to demonstrate learning development |

Key Learning Points

- | | | |
|----|-------|---|
| TK | 2.1.1 | Experience into learning, values and goals, challenges higher level thinking, problem solving, increases self-awareness |
| TK | 2.1.2 | All practice as learning, analytical thinking, opportunities to share experience, examine assumptions Critical attention: values, theories that inform everyday actions |
| TK | 2.2.1 | Gibbs reflective cycle: Description (what happened) Feelings (feel and think) Evaluation (positives and negatives) Analysis (make sense of it) Conclusion (what else could have been done) action plan (what will be done in future) or other reflective cycles |
| TK | 2.2.2 | Analysis of a situation, use actual dialogue, balance between problematic and satisfying experience rules on reflection: honesty, trust, time commitment, motivation and practice |

Training Resources

- Classroom setting
- Pens, paper

Exercise

1. Apprentices to write up a reflection/analysis of a practical task while applying Gibbs reflective cycle

Unit 3**Introduction to Project Planning****Duration: 5 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

- | | | |
|----|-----|---|
| SD | 3.1 | Setting project goals and objectives, Constraints: Scope, time, quality, cost |
| SD | 3.1 | Cycle: imitation, planning, execution and closure (monitoring) |
| SD | 3.1 | Project initiation: defining the problem: determining project feasibility, activity planning and monitoring Project timelines managing team members |

Key Learning Points

- | | | |
|----|-------|--|
| TK | 3.1.1 | Setting project goals and objectives, Constraints: Scope, time, quality, cost |
| TK | 3.1.2 | Cycle: imitation, planning, execution and closure (monitoring) |
| TK | 3.1.3 | Project initiation: defining the problem: determining project feasibility, activity planning and monitoring Project timelines managing team member |

Training Resources

- Classroom setting
- Pens, paper

Exercise

1. Apprentices take notes under the following headings :Principals of project planning cycle and project initiation

Unit 4 Introduction to Report Writing**Duration: 5 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

- SD 4.1 Explain the functions of report writing
- SD 4.2 Explain the steps involved in report writing
- SD 4.3 Write a short structured report

Key Learning Points

- TK 4.1.1 Function: clear purpose, particular audience, specific information, evidence communicate information, result of research and analysis of date and issues
- TK 4.2.1 7 steps objective:
 - Purpose of report: decide, explain, recommend or persuade
 - Know your audience: tailor language, use of data
 - Report format: format and type
 - Facts and data: engaging facts /data
 - Report structure: executive summary, introduction, body and conclusion
 - Readability: use formatting visual aids
 - Edit: edit and revise
- TK 4.3.1 Structuring content, drafting, proof reading, editing, redrafting, cohesion

Training Resources

- Classroom setting
- Pens, paper
- PC and Internet access
- Video camera

Exercise

1. Apprentices to draft and write a structured report

 Module 7: Communications & Team Leadership

Unit 5**Teamwork****Duration: 15 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

SD	5.1	Examine the elements and stages of team development
SD	5.2	Describe team types and functions
SD	5.3	Examine the issues that may arise in multi-team environments
SD	5.4	Outline the characteristics of an effective team
SD	5.5	Evaluate the impact of effective and ineffective team members
SD	5.6	Discuss the need for different roles for individuals within a team
SD	5.7	Examine how personality types and behaviours influence team roles
SD	5.8	Describe the role of evaluation and how progress will be monitored

Key Learning Points

TK	5.1.1	4 core elements: leadership, resources, communications, team formation, Tuckman's 5 stages forming, storming norming performing, adjourning
TK	5.2.1	Working, special purpose multifunctional, management and virtual teams
TK	5.3.1	Inter-team conflict: internal competition, incompatible work practices, underperformance lack of flexibility
TK	5.4.1	Characteristics: achieving goals, cohesiveness, flexibility
TK	5.5.1	Belbin's 9 team roles: plant, resource investigator, coordinator, shaper, monitorevaluator, team worker, implementer, complete-finisher, specialist
TK	5.6.1	Roles: personalities: influence behaviours
TK	5.7.1	Evaluation methods: systematic assessment of information feedback: approaches to monitoring Progress: checking objective and timelines

Training Resources

- Classroom setting
- Pens, paper
- Keirsey Temperament Sorter or similar (short form of Myers Briggs Personality Test)
Belbin team roles

Exercise

1. Apprentices to make notes under the following headings: team elements and stages: team types and functions: multi-teams: team roles: personalities in teams.
2. Apprentices to complete Personality Type Indicator and discuss how this can influence behaviours within team setting

Carpentry & Joinery

Curriculum

Phase 4

OFF-The-Job



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

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While it is intended that the modules be delivered in the sequence specified, it is acknowledged that modules covered can be determined by the rate of progress of the participants and the availability of resources within the training location.

Each module consists of a number of learning units which describe:

- The skills to be developed
- The key learning points for the integrated practical and knowledge elements
- Exercises to be conducted at the end of the learning unit.

Assessment and Skill Codes

Assessment Codes: to indicate how each unit learning outcome is to be assessed:

T = Theory

PW = Project Work

P = Practical

SD = Skills Demonstration (on-the-job)

D = Drawing

Skills Codes: to indicate which skill(s) each KLP addresses:

Core Skills

TK = Technical Knowledge

Sk = Practical skill

Generic Skills

Generic skills will include basic skills such as literacy and numeracy, and also key skills such as communication, team working, planning, problem solving, and customer handling. Generic skills are those that apply across a variety of jobs and life contexts.

Fundamental Skills

M = Maths

H = Hazards associated with task

Sc = Science

IT = Information Technology

H&S = Health & Safety

D = Drawing

Personal Skills¹

TW = Teamwork

COM = Communications

Conceptual Skills

LL = Learning to Learn

PS = Problem Solving

¹ (current PS code used under Conceptual Skills)

Learning Units for Module 1

Module 1: 1st Fixing and Site Works**Duration: 114.5 hours**

Unit No.		Duration Hours
1.	Timber Floors	8
2.	Wood Technology	17
3.	Shoring and Temporary Work	9.5
4.	Formwork	19
5.	Timber Framed Buildings	13
6.	Planning and Building Standards	6
7.	Safety and Health Regulations	6
8.	Acoustic Insulation	6
9.	Volume and Capacity	7
10.	Geometric Construction of Arches	7
11.	Scale Drawing – 1st Fixing	9
12.	Geometric Calculations	7

Module Objectives

Module 1: Timber Floors

Duration: 114.5 hours

At the end of this module each apprentice will be able to:

No	Activity	Assessment Type	Standard Code/LO
1.1	Define the properties of single and double upper floors, select appropriate methods to trim around openings and propose a suitable form of insulation	T	1st Fixing and Sitework, LO5, LO14
2.1	Define the properties of wood preservatives and determine the appropriate methods of application in line with manufacture's data sheets and health and safety requirements	T	1st Fixing and Sitework, LO2
2.2	Discuss the conditions that contribute to the infestation of timber destroying insects and the methods of prevention and eradication	T	1st Fixing and Sitework, LO2
2.3	Define the properties of wood glues and determine the appropriate methods of application in line with manufacture's data sheets and health and safety requirements	T	1st Fixing and Sitework, LO2
2.4	Discuss the conditions that contribute to the occurrence of condensation and compare methods of prevention	T	1st Fixing and Sitework, LO2
3.1	Select and describe appropriate shoring methods to support temporary works	T	1st Fixing and Sitework, LO4
4.1	Design and fabricate the formwork required to facilitate a poured concrete stairs and deck in accordance with the TGDs	T, P	1st Fixing and Sitework, LO14
5.1	Discuss the principles of timber framed building their methods of construction, position of fire stops and types of external finishes	T	1st Fixing and Sitework, LO6
6.1	Discuss the roles and responsibilities of local authorities and the government with relation to the planning regulations, fire certification and the technical guidance documents	T	1st Fixing and Sitework, LO9
7.1	Discuss the responsibilities of employers and employees as set out by the construction safety, health and welfare regulations and define the role of the Health & Safety Authority	T	1st Fixing and Sitework, LO8

 Module Objectives

Module 1: 1st Fixing and Site Works**Duration: 114.5 hours**

At the end of this module each apprentice will be able to:

No	Activity	Assessment Type	Standard Code/LO
8.1	Define the principles of acoustic insulation appraise with the aid of sketches the material and methods used to soundproof a structure	T	1st Fixing and Sitework, LO7
9.1	Demonstrate the use of mathematical formulae to obtain the volume and capacity of geometrical solids	T	1st Fixing and Sitework, LO10
10.1	Using geometrical principles produce line drawings of arches and develop arch soffits	P	1st Fixing and Sitework, LO11
11.1	Demonstrate skill to read, interpret and produce scale drawings of 1st fixing and sitework components as a means of communicating technical information	P	1st Fixing and Sitework, LO11
12.1	Using mathematical principles define the properties of angles, parallel lines, transversals and the circle	T	1st Fixing and Sitework, LO10

Unit 1: Timber Floors**Duration: 8 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Explain method of trimming to hearth and opes
T	1.1.2	Define the principles of attic floors
T	1.1.3	Describe the use of manufactured joisting
T	1.1.4	Define the principles of double floors
T	1.1.5	Distinguish what insulation should be used in floors and ceilings

Key Learning Points

TK	1.1.1.1	Trimming to hearth
TK	1.1.1.2	Fire regulations
TK	1.1.1.3	Stairwells
TK	1.1.1.4	Mezzanine floors
TK	1.1.2.1	Support of joists
TK	1.1.3.1	Types of joists
TK	1.1.4.1	Beams
TK	1.1.5.1	Insulation type and fitting

Training Resources

- Classroom facilities

Exercise

1. Answer relevant trainer generated questions

Module 1: 1st Fixing and Site Works

Unit 2: Wood Technology**Duration: 17 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Identify, describe and distinguish between different methods of application of wood preservatives and their properties
T	2.2.1	Identify insect attack and describe methods of prevention and eradication
T	2.3.1	Identify and state the use of natural and synthetic glues
T	2.3.2	Describe methods of manufacture of different glues and methods of application according to manufacturer's instructions
T	2.4.1	Describe how condensation occurs and identify how to reduce it

Key Learning Points

TK	2.1.1.1	Wood preservatives and their properties
TK	2.1.1.2	Method of application
TK	2.2.1.1	Diseases, means of eradication
TK	2.2.1.2	Removal of diseased timber
TK	2.2.1.3	Treatment of un-removed sound timber
TK	2.2.1.4	Sterilisation of non-combustible surfaces in the vicinity
TK	2.3.1.1	Uses of natural and synthetic glues
TK	2.3.1.2	Advantages and disadvantages of different glues
TK	2.3.2.1	Manufacture of different glues
TK	2.3.2.2	Methods of application
TK	2.3.2.3	Safety in the use of glues
TK	2.3.2.4	Prevention of skin damage
TK	2.4.1.1	Causes of condensation
TK	2.4.1.2	Prevention/repair by insulation, ventilation and glazing
TK	2.4.1.3	Identify correct position of condensation groove and weep holes in joinery
TK	2.4.1.4	Describe how mould effects finish

Training Resources

- Classroom facilities

Exercise

1. Answer relevant instructor generated questions

Unit 3: Shoring and Temporary Work**Duration: 9.5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Identify and describe various shoring systems and select a suitable shore for a given situation
T	3.1.2	Sketch different shoring methods
T	3.1.3	Identify and describe temporary works in various conditions
T	3.1.4	Identify and describe correct method of erecting supports for temporary works

Key Learning Points

TK	3.1.1.1	Raking shoring
TK	3.1.1.2	Flying shoring
TK	3.1.1.3	Dead shoring
TK	3.1.1.4	Conditions requiring shoring
TK	3.1.1.5	Construction
TK	3.1.1.6	Component parts and function
TK	3.1.1.7	Propping floor and roofs
TK	3.1.1.8	Strutting opes
TK, D	3.1.2.1	Sketching shoring
TK	3.1.3.1	Types of trench supports
TK	3.1.3.2	Impact of various site conditions
TK	3.1.3.3	Arch supports
TK	3.1.4.1	Plumbing and levelling

Training Resources

- Classroom facilities

Exercise

1. Answer relevant instructor generated questions

Module 1: 1st Fixing and Site Works

Unit 4: Formwork**Duration: 19 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	4.1.1	Identify and describe correct method of fabricating, plumbing, levelling and lining formwork
P	4.1.2	Design formwork for a straight flight of concrete stairs
P	4.1.3	Set out, mark out, cut and construct formwork for stairs
T	4.1.4	Identify and choose correct materials and correct size materials
P	4.1.5	Fabricate forms and construct decking
P	4.2.4	Assess quality of own work

Key Learning Points

TK	4.1.1.1	Plumbing, levelling and lining formwork for floors, beams, walls, columns and stairs
TK	4.1.1.2	Release agents and retarders
TK	4.1.2.1	Principles of design
Sk	4.1.3.1	Setting out, marking and cutting out
Sk	4.1.3.2	Use of patent forms
Sk	4.1.3.3	Erecting decking and propping
Sk	4.1.3.4	Tying and bracing
Sk	4.1.3.5	Rising forms
TK	4.1.4.1	Materials and sizes
Sk	4.1.5.1	Fabrication of forms

Training Resources

- Classroom facilities
- Project area
- C&J tool kit
- Equipment – power tools
- Materials – timber, sheet material

Exercise

1. Each apprentice will set out formwork for a straight flight of stairs
2. As a team of two prepare and construct formwork for straight flight of stairs and landing (to approx. dimensions min 1m, max 1.5m to landing, min 6 steps, max 10 steps)
3. One project per two apprentices

Unit 5: Timber Framed Buildings**Duration: 13 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 5.1.1 | Identify various types of timber framed buildings and the principles of design and construction |
| T | 5.1.2 | Specify various fire stops, their position and application |
| T | 5.1.3 | Sketch a section through a wall showing details of moisture barrier, window openings and door openings |
| T | 5.1.4 | Identify different types of external finishing |

Key Learning Points

- | | | |
|----|---------|--|
| TK | 5.1.1.1 | Types of timber framed buildings |
| TK | 5.1.1.2 | Design principles and construction |
| TK | 5.1.1.3 | Balloon frame/platform frame |
| TK | 5.1.1.4 | Vapour barriers/breather paper |
| TK | 5.1.1.5 | Technical Guidance Documents for timber framed buildings |
| TK | 5.1.2.1 | Fire stop positioning |
| TK | 5.1.2.2 | Applications of fire stops |
| TK | 5.1.3.1 | Sketching details of timber framed buildings |
| TK | 5.1.4.1 | Weather sheeting and cladding |
| TK | 5.1.4.2 | Block/stone outer leaves |

Training Resources

- Classroom facilities

Exercise

1. Answer relevant instructor generated questions

Unit 6: Planning and Building Standards Duration: 6 hours**Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 6.1.1 | Explain the purpose and administration procedures of the local planning regulations |
| T | 6.1.2 | Explain role of Government and Local Authorities |
| T | 6.1.3 | Explain the purpose of fire certification |
| T | 6.1.4 | Summarise technical guidance documents and describe their significance |

Key Learning Points

- | | | |
|----|---------|---|
| TK | 6.1.1.1 | Purpose of Local Planning Regulations |
| TK | 6.1.2.1 | Role of government department and local authorities |
| TK | 6.1.2.2 | Commencement notices and procedures |
| TK | 6.1.3.1 | Fire certificates (approval procedure) |
| TK | 6.1.4.1 | Technical guidance documents |

Training Resources

- Classroom facilities

Exercise

1. Answer relevant instructor generated questions

Unit 7: Safety and Health Regulations**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 7.1.1 | Describe the purpose and main requirements of The Construction Safety, Health and Welfare Regulations |
| T | 7.1.2 | Discuss the responsibilities of employer and employee |
| T | 7.1.3 | Define role and powers of monitoring and enforcement body |

Key Learning Points

- | | | |
|----|---------|--|
| TK | 7.1.1.1 | Statutory document |
| TK | 7.1.1.2 | Purpose of the regulations |
| TK | 7.1.1.3 | General outline of requirements |
| TK | 7.1.2.1 | Responsibilities of employer |
| TK | 7.1.2.2 | Responsibilities of employee |
| TK | 7.1.3.1 | Role and powers of Health & Safety Authority |

Training Resources

- Classroom facilities

Exercise

1. Answer relevant instructor generated questions

Unit 8: Acoustic Insulation**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 8.1.1 | Define the principles of soundproofing |
| T | 8.1.2 | Identify types of materials and methods used to soundproof |
| T | 8.1.3 | Sketch elements of a building showing acoustic insulation in position |

Key Learning Points

- | | | |
|----|---------|------------------------------|
| TK | 8.1.1.1 | Principles of soundproofing |
| TK | 8.1.2.1 | Methods of installation |
| TK | 8.1.2.2 | Material type and how to fit |
| TK | 8.1.2.3 | Discontinuous construction |
| TK | 8.1.2.4 | Increased mass |

Training Resources

- Classroom facilities

Exercise

1. Answer relevant instructor generated questions
2. Produce sketches of building elements containing acoustic insulation

Unit 9: Volume and Capacity**Duration: 7 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 9.1.1 | Define formula for calculating volume and capacity of regular geometrical solids |
| T | 9.1.2 | Apply formulae to volume and capacity equations |

Key Learning Points

- | | | |
|---|---------|--|
| M | 9.1.1.1 | Use of formula |
| M | 9.1.1.2 | Units of measurement used in volume and capacity |
| M | 9.1.1.3 | Definitions of volume and capacity |
| M | 9.1.2.1 | Practical applications |

Training Resources

- Classroom facilities

Exercise

1. Calculate capacity and volume of regular geometrical solids

Unit 10: Geometric Construction of Arches Duration: 7 hours**Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|--------|---|
| P | 10.1.1 | Identify how to get centre points and lines where joints are made |
| P | 10.1.2 | Use geometrical principles to draw arches |
| P | 10.1.3 | Identify how to develop arch soffit |
| P | 10.1.4 | Determine tangents and joint lines |

Key Learning Points

- | | | |
|-------|----------|---|
| TK, D | 10.1.1.1 | Obtaining centre points |
| D | 10.1.2.1 | Draw ogee, lancet, pseudo elliptical and drop gothic arches |
| TK, D | 10.1.3.1 | Development of arch soffit |
| TK, D | 10.1.4.1 | Tangents and joint lines |

Training Resources

- Classroom facilities
- Equipment – drawing equipment
- Materials – paper

Exercise

1. Draw in line diagram format the following arches: Tudor Arch a) Three centre arch b) Ogee c) Lancet d) Pseudo-elliptical
2. Develop an arch soffit

Module 1: 1st Fixing and Site Works

Unit 11: Scale Drawing – 1st Fixing**Duration: 9 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 11.1.1 Produce drawings of 1st fixing components to scale
- P 11.1.2 Interpret detailed 1st fixing drawings

Key Learning Points

- D 11.1.1.1 Produce scale drawings
- D 11.1.2.1 Interpret detailed drawings

Training Resources

- Classroom facilities
- Equipment – drawing equipment
- Materials – paper

Exercise

1. Produce scale drawings of 1st fixing components

Unit 12: Geometric Calculations**Duration: 7 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|--------|---|
| T | 12.1.1 | Define angular measurement and list types of angles |
| T | 12.1.2 | List and illustrate the properties of parallel lines and transversals |
| T | 12.1.3 | List types of triangles and their angular properties |
| T | 12.1.4 | Define and illustrate the properties of a circle |

Key Learning Points

- | | | |
|---|----------|---|
| M | 12.1.1.1 | Definition of an angle |
| M | 12.1.1.2 | Magnitude of an angle |
| M | 12.1.1.3 | Units of angular measure |
| M | 12.1.1.4 | Types of angles, acute, right, obtuse, reflex, complementary, supplementary |
| M | 12.1.2.1 | Definition and properties of parallel lines and transversals |
| M | 12.1.3.1 | Triangles and their angular properties |
| M | 12.1.3.2 | Types of triangles |
| M | 12.1.4.1 | Properties of a circle |
| M | 12.1.4.2 | Angle/chord relationship |
| M | 12.1.4.3 | Segment/chord relationship |

Training Resources

- Classroom facilities

Exercise

1. Define different types of angles
2. Define three types of triangles
3. Define the properties of a circle

Learning Units for Module 2

Module 2: Timber Roofs**Duration: 92 hours**

Unit No.		Duration Hours
1.	Hip and Valley Cut Roofs	26
2.	Hip and Valley Truss Roofs	10
3.	Connecting to Existing Pitched Roof	9
4.	Dormer Roofs	18
5.	Ratio and Proportions	6
6.	Transformation of Formulae	6
7.	Roofing Geometry	17

Module Objectives

Module 2: Timber Roofs

Duration: 92 hours

At the end of this module each apprentice will be able to:

No	Activity	Assessment Type	Standard Code/LO
1.1	By determining the lengths and bevels of all components, demonstrate the knowledge and skills required to construct a cut roof containing a hip and a valley to industry best practice	T, SD	Timber Roofs LO3, LO12
2.1	Demonstrate the knowledge and skills required to construct a truss roof containing a hip and a valley truss to manufacturer's product data sheets	T, P	Timber Roofs LO4, LO13
3.1	Demonstrate the knowledge and skills required to construct a new pitched roof which intersects with an existing pitched roof while maintaining its structural integrity and insuring that the completed structure is weather tight	T, SD	Timber Roofs LO3, LO8, LO12
4.1	Classify types of dormers, assess their methods of construction in new and existing roof structures choosing suitable methods of weathering	T, P	Timber Roofs LO3, LO5, LO7
5.1	Solve craft related problems using ratio and proportions and express as fractions, decimals and percentages	T	Timber Roofs LO11
6.1	Use mathematical formula to determine an unknown quantity for the purpose of craft calculations	T	Timber Roofs LO11
7.1	Determine the true lengths, true shape and bevels of all the components required for the construction of a hip or valley roof	T	Timber Roofs LO10

Module 2: Timber Roofs

Unit 1: Hip and Valley Cut Roofs**Duration: 26 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Identify, sketch and state the method of construction of hip and valley roofs
SD	1.1.2	Determine true lengths and bevels of all rafters and purlins for a hip and valley roof, roofs of varying pitches, spans and ridge heights
SD	1.1.3	Set out and construct a hip and valley roof

Key Learning Points

TK	1.1.1.1	Methods of construction
TK Sk	1.1.1.2	Sketch hip/valley details
TK	1.1.2.1	Roofs of varying pitches, spans and ridge
TK Sk	1.1.2.2	Determining true lengths
TK Sk	1.1.2.3	Determine bevels of rafters and purlins
TK Sk	1.1.2.4	Determining plan of hips and valleys
TK Sk	1.1.3.1	Setting out and marking out techniques
Sk	1.1.3.2	Construction of hip and valley roof
Sk	1.1.3.3	Creepers/cripple rafters

Training Resources

- Project area
- C&J tool kit
- Equipment – setting out equipment
- Materials – timber

Exercises

1. Determine all bevels for rafters, hips, valleys and purlins of a roof square in plan
2. Set out and construct a roof from full size timbers containing rafters, hips, valleys and purlins

Unit 2: Hip and Valley Truss Roofs**Duration: 10 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Describe and sketch truss rafters construction in hip and valley roofs
P	2.1.2	Set out and erect hip/valley truss rafters

Key Learning Points

TK	2.1.1.1	Methods of construction
Sk	2.1.1.2	Sketch hip/valley truss details
TK Sk	2.1.2.1	Setting out and marking out techniques
Sk TW	2.1.2.2	Construction of hip and valley roof
Sk TW	2.1.2.3	Secure rafters in place and positioning of braces

Training Resources

- Project area
- C&J tool kit
- Setting out equipment
- Material truss rafters

Exercise

1. Erect as part of a team hip and valley truss rafters, secure in place and brace

Module 2: Timber Roofs

Unit 3: Connecting to an Existing Pitched Roof **Duration: 9 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Describe the method of connecting a new pitched roof to an existing roof, methods of stripping back and weathering of existing roof
T	3.1.2	Describe fixing of lay-boards, ridge board and joining wall plates to an existing roof
T	3.1.3	Describe the method of connecting a new pitched roof to an existing roof, methods of stripping back and weathering of existing roof

Key Learning Points

TK	3.1.1.1	Joining new roof to existing roof
TK	3.1.1.2	Method of stripping back existing roof
TK	3.1.1.3	Weathering existing roof
TK	3.1.2.1	Lay-boards and ridge board
TK	3.1.2.2	Joining wall plates to existing roof
Sk TW	3.1.3.1	Setting out ridge boards and rafters
Sk TW	3.1.3.2	Stripping back of existing roof
Sk TW	3.1.3.3	Marking out, cutting and erecting ridge boards and rafters
Sk TW	3.1.3.4	Laying of valley boards
Sk TW	3.1.3.5	Method of preparing valley for lead

Training Resources

- Project area
- C&J tool kit
- Equipment – existing roof, setting out
- Materials – timber

Exercise

1. Erect and connect as part of a team a new pitch roof to a existing pitch roof

Unit 4: Dormer Roofs**Duration: 18 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	4.1.1	Classify different types of dormer roofs and their methods of construction
T	4.1.2	Identify correct method of erecting a dormer roof in new and existing roofs
T	4.1.3	Identify different types of cladding and methods of weathering a dormer
T	4.1.4	Sketch structural members
T	4.1.5	Summarise the Technical Guidance documents related to dormer roofing
P	4.1.6	Set out, mark out and construct a dormer roof

Key Learning Points

TK	4.1.1.1	Types of dormers
TK	4.1.1.2	Design of dormers
TK	4.1.1.3	Insulation and ventilation
TK	4.1.2.1	Methods of erection of dormers
TK	4.1.2.2	Structure and stability
TK	4.1.3.1	Types of cladding
TK	4.1.3.2	Weathering and flashing
TK	4.1.4.1	Sketching structural details
TK	4.1.5.1	Technical guidance documents in relation to dormer roofs
Sk TW	4.1.6.1	Setting out
Sk TW	4.1.6.2	Marking out
Sk TW	4.1.6.3	Construction of dormer

Training Resources

- Class room facilities
- Project area
- C&J tool kit
- Equipment – existing roof
- Materials – timber

Exercise

1. Answer relevant instructor generated questions
2. As part of a team construct a dormer to an existing roof

Unit 5: Ratio and Proportions**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 5.1.1 | Compare magnitude of quantities by use of ratio and proportion calculations |
| T | 5.1.2 | Use fractions to express ratio |
| T | 5.1.3 | Convert fractions to decimals and percentages |

Key Learning Points

- | | | |
|---|---------|--|
| M | 5.1.1.1 | Use of fractions to express ratio of quantities |
| M | 5.1.2.1 | Practical applications of ratios and proportions |
| M | 5.1.3.1 | Converting fractions to decimals |

Training Resources

- Classroom facilities

Exercises

1. Solve trainer-generated mathematical problems

Unit 6: Transformation of Formulae**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T 6.1.1 Transpose a formula to determine an unknown quantity

Key Learning Points

M 6.1.1.1 Isolating unknown quantities

M 6.1.1.2 Transfer a term with a changed sign to the other side of an equation

M 6.1.1.3 Rearrange formula when solving a problem

Training Resources

- Classroom facilities

Exercise

1. Transpose a formula from a given question

Unit 7: Roofing Geometry**Duration: 17 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| P | 7.1.1 | Identify roof planes from relative plans |
| P | 7.1.2 | Determine true lengths and bevels of all rafters and purlins |
| P | 7.1.3 | Develop true shape of roof surfaces |

Key Learning Points

- | | | |
|---|---------|---|
| D | 7.1.1.1 | Identification of roof planes square in plan |
| D | 7.1.2.1 | True lengths and bevels of rafters and purlins square in plan |
| D | 7.1.2.2 | Indexing of points |
| D | 7.1.2.3 | Determining plan of hips and valleys |
| D | 7.1.3.1 | True shape of roof surfaces |
| D | 7.1.3.2 | Development of roof surfaces |
| D | 7.1.3.3 | Significance of 'line diagram' representation |

Training Resources

- Classroom facilities
- Drawing equipment
- Materials – paper

Exercises

1. Develop the true shape of a roof with varying pitches, spans and ridge heights
2. Develop the surface of a roof square in plan
3. Determine all bevels for purlins of a roof square in plan

Learning Units for Module 3

Module 3: Joinery
Duration: 108 hours

Unit No.		Duration Hours
1.	Window Manufacturing	4
2.	Stair Manufacturing	18
3.	Curved Joinery Manufacturing	26
4.	Louvre Frames	12
5.	Spindle Moulder	4
6.	Single Ended Tennon Machine	4
7.	True Shape and Development of Complete and Truncated Solids	12
8.	Enlarging and Reducing	10
9.	Scale Drawing – Joinery	18

Module Objectives

Module 3: Joinery**Duration: 108 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Set out a window containing a curved component with reference to the requirements of the TGDs; compare the traditional and contemporary glazing systems	T	Joinery, LO13
2.1	Demonstrate the knowledge and skills required to manufacture the required jigs/template to aide in the manufacture of a half-turn stairs	T, SD	Joinery, LO11
3.1	Demonstrate the knowledge and skills required to manufacture joinery with curve to straight and curve to curve components	T Practical	Joinery, LO13
4.1	Demonstrate the knowledge and skills required to manufacture joinery containing louvres	T, SD	Joinery, LO12
5.1	Identify the parts and safety devices of the spindle moulder machine	T	Joinery, LO1
5.2	Operate under supervision the spindle moulder machine	T, SD	Joinery, LO8
6.1	Identify the parts and safety devices of the single ended tenon machine	T	Joinery, LO1
6.2	Operate under supervision the single ended tenon machine	T, SD	Joinery, LO8
7.1	Using geometrical principles develop the surfaces of full and truncated solids, obtain the true shape of cut surfaces	P	Joinery, LO6
8.1	Enlarge and reduce shapes or mouldings in proportion using draughting techniques	P	Joinery, LO6
9.1	Demonstrate the knowledge and skill to read, interpret and produce scale drawings of joinery components as a means of communicating technical information	P	Joinery, LO6

Unit 1: Window Manufacturing**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Describe different types of windows and glazing systems
P	1.1.2	Set out a window containing curved components
T	1.1.3	Summarise the Technical Guidance Documents relating to windows

Key Learning Points

TK	1.1.1.1	Types of windows
TK	1.1.1.2	Glazing systems for timber windows
TK	1.1.1.3	Weather and draught proofing
Sk	1.1.2.1	Method of setting out/marketing out semi-circular, segmental and elliptical headed windows
TK	1.1.3.1	Technical Guidance Documents relating to windows

Training Resources

- Workshop facilities
- Setting out equipment

Exercise

1. Answer relevant trainer generated questions
2. Set out a window containing curved components

Unit 2: Stair Manufacturing**Duration: 18 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Discuss the design principles of a half turn stairs
T	2.1.2	Summarise the Technical Guidance Documents relating to half turn stairs
SD	2.1.3	Set out and manufacture a half turn stairs

Key Learning Points

TK	2.1.1.1	Principles of design
TK	2.1.1.2	Manufacturing of router step template
TK	2.1.2.1	Technical Guidance Documents relating to half turn stairs
Sk	2.1.3.1	Marking out half turn stairs
TK	2.1.3.2	Use of router with router step template
Sk	2.1.3.3	Jointing of steps to strings
Sk	2.1.3.4	Jointing of strings to newels
Sk	2.1.3.5	Wedging and gluing

Training Resources

- Workshop facilities
- C&J tool kit
- Equipment – power tools
- Materials – timber

Exercise

1. Answer relevant trainer generated questions
2. Set out and manufacture a half turn stairs

Unit 3: Curved Joinery Manufacturing**Duration: 26 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Identify and describe curved joinery and jointing techniques
P	3.1.2	Set out and manufacture curved joinery containing straight to curved and curved to curved joinery

Key Learning Points

TK	3.1.1.1	Jointing methods – curved to straight/curved to curved
TK	3.1.1.2	Designing to prevent short grain
Sk	3.1.2.1	Methods of setting out
Sk	3.1.2.2	Moulding and rebating straight and curved work
Sk	3.1.2.3	Wedging, gluing and assembling
Sk	3.1.2.4	Sanding and finishing

Training Resources

- Workshop facilities
- C&J tool kit
- Equipment – power tools
- Materials – timber

Exercise

1. Answer relevant trainer generated questions
2. Manufacture a piece of joinery containing a straight to curved component and curved to curved component

Unit 4: Louvre Frames**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	4.1.1	Determine true face, edge and trench bevels for Louvre frames
SD	4.1.2	Set out and manufacture joinery containing Louvres

Key Learning Points

TK	4.1.1.1	Method of obtaining louvre bevels
TK	4.1.1.2	Methods of obtaining trench bevels
Sk	4.1.1.3	Sketching of sections
Sk	4.1.2.1	Marking out
Sk	4.1.2.2	Jointing methods
Sk	4.1.2.3	Cutting and fitting louvres
Sk	4.1.2.4	Gluing and assembling
Sk	4.1.2.5	Sanding and finishing

Training Resources

- Workshop facilities
- C&J tool kit
- Equipment – setting out, power tools
- Materials – timber

Exercise

1. Answer relevant trainer generated questions
2. Manufacture joinery containing Louvres

Module 3: Joinery

Unit 5: Spindle Moulder**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	State the function of a spindle moulder
T	5.1.2	Identify and state the names and purpose of the various parts of a spindle moulder, the correct method of setting up procedures for moulds
T	5.1.3	Summarise Health & Safety legislation related to the spindle moulder
SD	5.2.1	Operate the spindle moulder under supervision in a safe manner to cut a groove, chamfer and rebate (machine set up by an authorised person)
T	5.2.2	Identify the advantages and safety implications of using power feeds on a spindle moulder
SD	5.2.3	Write a method statement and a risk assessment for operating a spindle moulder

Key Learning Points

TK	5.1.1.1	Purpose of spindle moulder
TK	5.1.2.1	Main parts of spindle moulder
TK	5.1.2.2	Method of operating locking levers and devices
TK	5.1.2.3	Define correct position of safety guards
TK	5.1.3.1	SI 36 2016
TK	5.1.3.2	Housekeeping
TK	5.2.2.1	Safe work practice
Sk	5.2.2.2	Operating of machine
TK	5.2.2.3	Power feed
COM	5.2.3.1	Report writing
TK	5.2.3.2	Identification of hazards relating to the spindle moulder

Training Resources

- Machine workshop facilities
- Spindle moulder
- Power feed
- Cutter blocks
- Materials – timber

Exercise

1. Develop a method statement and produce a risk assessment on the safe operation of the spindle moulder
2. Answer relevant trainer generated questions

Unit 6: Single Ended Tenon Machine**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	6.1.1	State the function of a single ended tenon machine
T	6.1.2	Identify and state the names and purpose of the various parts of a single ended tenon machine, the correct method of operating locking levers and devices
T	6.1.3	Summarise Health & Safety related to a single ended tenon machine
SD	6.2.1	Operate the single ended tenon machine under supervision in a safe manner (machine set up by an authorised person)
SD	6.2.2	Write a method statement and a risk assessment for operating a single ended tenon machine

Key Learning Points

TK	6.1.1.1	Purpose of single ended tenon machine
TK		
TK	6.1.2.1	Main parts of single ended tenon machine
TK	6.1.2.2	Method of operating locking levers and devices
TK	6.1.2.3	Purpose of backing pieces to fences
TK	6.1.3.1	SI 36 2016
TK	6.1.3.2	Define correct position of safety guards
TK	6.1.4.1	Operating of machine
TK	6.1.4.2	Housekeeping
TK	6.1.4.3	Safe work practice
COM	6.1.5.1	Report writing
TK	6.1.5.2	Identification of hazards relating to the single ended tenon machine

Training Resources

- Machine workshop facilities
- Single ended tenon machine
- Materials – timber

Exercise

1. Develop a method statement and produce a risk assessment on the safe operation of the single ended tenon machine
2. Answer relevant trainer generated questions
3. Tenon timber under supervision for a selected project

Module 3: Joinery

Unit 7: True Shape and Development of Complete and Truncated Solids**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 7.1.1 Geometrically develop the surfaces of full and truncated solids
- P 7.1.2 Construct auxiliary views to obtain true shapes of cut surfaces

Key Learning Points

- D 7.1.1.1 Graphical representation of a full and cut solid
- D 7.1.1.2 Development of surfaces
- D 7.1.2.1 Auxiliary views
- D 7.1.2.2 Indexing of points
- D 7.1.2.3 Determinations of true shapes of cut surfaces

Training Resources

- Classroom facilities
- Drawing equipment
- Materials paper

Exercise

1. Complete exercise in the development of completed and truncated solids

Unit 8: Enlarging and Reducing**Duration: 10 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 8.1.1 Enlarge and reduce a given shape or moulding
- P 8.1.2 Enlarge and reduce in proportion
- P 8.1.3 Identify method of enlarging and reducing

Key Learning Points

- D 8.1.1.1 Principles of enlarging and reducing of shapes/mouldings
- D 8.1.2.1 Enlarging and reducing in one dimension only
- D 8.1.2.2 Enlarging and reducing in proportion
- D 8.1.3.1 Methods of enlarging/reducing

Training Resources

- Classroom facilities
- Drawing equipment
- Materials paper

Exercise

1. Complete exercises in reducing and enlarging

Unit 9: Scale Drawing – Joinery**Duration: 18 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 9.1.1 Interpret detailed Joinery drawings
- P 9.1.2 Produce scale drawings

Key Learning Points

- D 9.1.1.1 Interpretation of detailed drawings
- D 9.1.2.1 Produce drawing using scale

Training Resources

- Classroom facilities
- Drawing equipment
- Materials paper

Exercise

1. Produce scale drawings of Joinery components

Learning Units for Module 4

Module 4: 2nd Fixing Activities**Duration: 30 hours**

Unit No.		Duration Hours
1.	Handrailing	6
2.	Domestic Fitted Furniture	4
3.	Timber Trims	2
4.	Costing of Projects	6
5.	Shop Fronts and Screens	12

 Module Objectives

Module 4: 2nd Fixing Activities**Duration: 30 hours**

At the end of this module each apprentice will be able to:

No	Activity	Assessment Type	Standard Code/LO
1.1	Demonstrate the knowledge and skills required to set out and define joint lines for ramps, knees and easings for handrailing	T, SD	2nd Fixing LO2
2.1	Describe the requirements of a kitchen or wardrobe and produce a layout to include appliances and services	T	2nd Fixing LO7
3.1	Describe how to joint and fix moulded trims, also methods of manufacturing built-up trims	T	2nd Fixing LO12
4.1	Using sound business models determine overall costs for a craft related project	T	2nd Fixing LO9
5.1	Describe the principles and methods of construction for screens and shop fronts which include the fitting and hanging of a pair of rebated doors	T, SD	2nd Fixing LO8, LO12

Module 4: 2nd Fixing Activities

Unit 1: Handrailing**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|----|-------|--|
| T | 1.1.1 | Define location and describe function of ramps knees and easings for handrails |
| SD | 1.1.2 | Setting out ramps knees and easings and define joint lines |

Key Learning Points

- | | | |
|----|---------|-------------------------------------|
| TK | 1.1.1.1 | Setting out of shapes |
| TK | 1.1.1.2 | Position of ramps knees and easings |
| TK | 1.1.1.3 | Function of ramps knees and easings |
| Sk | 1.1.2.1 | Geometrical setting out |
| Sk | 1.1.2.2 | Positioning of joint lines |

Training Resources

- Workshop facilities
- Setting out equipment

Exercise

1. Answer relevant trainer generated questions
2. Set out ramps knees and easings

Unit 2: Domestic Fitted Furniture**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Describe the requirements of a kitchen/wardrobe layout
T	2.1.2	Describe method of constructing kitchen/wardrobe units, shelving and worktop jointing
T	2.1.3	Produce a kitchen/wardrobe layout

Key Learning Points

TK	2.1.1.1	Planning of layout
TK	2.1.1.2	Positioning of appliances/services
TK	2.1.2.1	Methods of construction
TK	2.1.2.2	Identification of materials
TK	2.1.2.3	Carcass construction
TK	2.1.2.4	Door designs, construction and hanging methods
TK	2.1.2.5	Standard heights
TK	2.1.2.6	Worktop joints
TK	2.1.3.1	Layout
TK	2.1.3.2	Materials list

Training Resources

- Classroom facilities

Exercise

1. Answer relevant trainer generated questions
2. Produce a kitchen or wardrobe layout

Unit 3: Timber Trims**Duration: 2 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 3.1.1 | Describe how to joint and fix moulded trims |
| T | 3.1.2 | Describe methods of manufacturing built-up skirting and architrave |

Key Learning Points

- | | | |
|----|---------|---|
| TK | 3.1.1.1 | Jointing and fixing methods of dado rails, picture rails and skirting |
| TK | 3.1.1.2 | Sketch dado and picture rail profiles |
| TK | 3.1.2.1 | Building up skirting, architraves |

Training Resources

- Classroom facilities

Exercises

1. Answer relevant trainer generated questions
2. Produce sketches of timber trim profiles

Module 4: 2nd Fixing Activities

Unit 4: Costing of Projects**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- T 4.1.1 Apply principles of calculation to determine overall costs for craft related projects

Key Learning Points

- M 4.1.1.1 Calculate the overall materials, waste, components and labour

Training Resources

- Classroom facilities

Exercise

1. Calculate the cost to finish a given project. Make allowances for waste, labour, materials and equipment

Unit 5: Shop Fronts and Screens**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	Explain the principles of design and methods of construction of shop fronts including groundwork and weatherings
T	5.1.2	Explain the principles of design and methods of construction of screens
T	5.1.3	Sketch methods of jointing and construction
SD	5.1.4	Fit and hang a pair of rebated doors

Key Learning Points

TK	5.1.1.1	Classify different types of shop fronts
TK	5.1.1.2	Principles and elements of design
TK	5.1.1.3	Methods of fixing
TK	5.1.1.4	Methods of weathering
TK	5.1.1.5	Construction methods
TK	5.1.1.6	Grounds for shop front
TK	5.1.1.7	Construction of pilasters and signage
TK	5.1.2.1	Types of doors and screens (external and internal)
TK	5.1.2.2	Associate ironmongery and fittings
TK	5.1.2.3	Swing doors
TK	5.1.2.4	Glazed/panelled screens
TK	5.1.2.6	Use of height and width rods
TK	5.1.3.1	Sketch construction and jointing methods
Sk	5.1.4.1	Fitting and hanging a pair of rebated doors

Training Resources

- Classroom facilities
- Project area
- Carpentry & Joinery tool kit
- Rebated doors

Exercise

1. Set out a screen and shop front to include a pair of rebated doors
2. Fit and hang a pair of rebated doors with appropriate furniture

Learning Units for Module 5

Module 5: Communications & Team Leadership**Duration: 22 hours**

Unit No.		Duration Hours
1.	Research and Structured Report Writing	10
2.	Legislation in the Workplace	10
3.	Reflective Practice	2

Module Objectives

Module 5 Communications & Team Leadership**Duration: 22 hours****At the end of this module each apprentice will be able to:**

Unit	Minimum Intended Programme Learning Outcomes (MIPLO)	Assessment Type	MIPLO
3	Demonstrate the ability to engage in reflective practice to develop independent learning, concepts, ideas and theories associated with reflective practice.	SD	1
N/A	Demonstrate underpinning knowledge of a range of information technologies to include word power point, excel email in a variety of media platforms and the policies and principles relevant to a vocational area.	SD	2
N/A	Research the elements and stages of team development to include different kinds of teams, a multi-team environment, the characteristics of an effective team and the need for different roles for the individuals. Participate in formal and informal working groups, to include leading or facilitating, note taking, summarising discussion, agreeing outcomes and action points setting SMART objectives.	SD	3
1	Use drafting, editing and proofreading skills and the correct conventions of language usage including spelling. Punctuation and syntax to produce formal written communications relevant to particular vocational areas, to include report, email, and basic excel and word.	SD	4
2	Evaluate in practical terms the elements of legislation that must be observed in a personal and or work context, to include health safety and welfare at work and communications-related legislation and the responsibilities that apply when working in a supervisory capacity.	SD	5
N/A	Lead progress on a work plan, to include taking corrective action to ensure successful completion of the plan, on-going monitoring of progress and evaluation Work independently and or in a supervisory capacity, displaying qualities such as assertiveness, self-confidence, and tact.	SD	6
N/A	Evaluate the concepts of leadership and management, different leadership and management styles and the principal theories that underpin this Demonstrate team leadership, to include team building supporting team members at different stages of team development.	SD	7

Unit 1: Research & Structured Report Writing **Duration: 10 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

SD	1.1	Implement a research plan in a defined area
SD	1.2	Estimate the time to complete a research plan
SD	1.3	Identify information sources and relevant information in a text
SD	1.4	Apply appropriate research methods and enquiry techniques
SD	1.5	Select and apply appropriate data collection and presentations techniques and styles
SD	1.6	Use drafting, editing and proof reading skills in the presentation of a structured report
SD	1.7	Apply the rules of structures report writing

Key Learning Points

TK	1.1.1	Formulating plan: Stage identification, resource identification: research methodology
TK	1.2.1	Project duration, description
TK	1.3.1	Appropriate depth of reading: decision, skim, scan read in detail
TK	1.4.1	Analytical thinking and reflection: objectivity, subjectivity, evaluation conclusions and recommendations
TK	1.5.1	Use of excel/and or other software
TK	1.6.1	Structure content: drafting, proof reading, editing, redrafting grammar, spelling cohesion/coherence
TK	1.7.1	Structured report writing: title, contents, executive summary/abstract, and introduction body of report

Training Resources

- Classroom setting
- Pens, paper
- PC and Internet access

Exercise

1. Apprentices to produce a research plan to identify research stages and their duration, present findings to group
2. Apprentices to draft and write a structured report

Unit 2: Legislation in the Workplace**Duration: 10 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

SD	2.1	Outline the main pieces of legislation that effect health, safety and welfare and the process of communication in the workplace
SD	2.2	Evaluate the implementation of this legislation in terms of internal policies and procedures and typical practices
SD	2.3	Outline the responsibilities that apply when working in a supervisory capacity in relation to health, safety and welfare at work and communications related legislation

Key Learning Points

TK	2.1.1	Data protection Acts
TK	2.2.1	Supplementary Regulations: internal policies and proceduress Responsibilities and manager/employer vs Staff responsibilities,
TK	2.3.1	obligation to report, responsibilities of data controllers and procedures, rights of data subjects

Training Resources

- Classroom setting
- Pens, paper

Exercise

1. Apprentices to make notes under the following headings - H&S and communications legislation
2. Apprentices to prepare a short essay/report relating to data protection to their vocational area

Unit 3**Reflective Practice****Duration: 2 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

- | | | |
|----|-----|--|
| SD | 3.1 | Discuss experience of Reflective Practice |
| SD | 3.2 | Use reflective writing to demonstrate learning development |

Key Learning Points

- | | | |
|----|-------|---|
| TK | 3.1.1 | Advantages and disadvantages, learning from experience |
| TK | 3.2.1 | Analysis of a situation, use actual dialogue, balance between problematic and satisfying experience rules on reflection: honesty, trust, time commitment, motivation and practice |

Training Resources

- Classroom setting
- Pens, paper

Exercise

1. Apprentices to write up a craft based reflection of a practical task while applying a reflective style

Carpentry & Joinery

Curriculum

Phase 6

OFF-The-Job



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

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While it is intended that the modules be delivered in the sequence specified, it is acknowledged that modules covered can be determined by the rate of progress of the participants and the availability of resources within the training location.

Each module consists of a number of learning units which describe:

- The skills to be developed
- The key learning points for the integrated practical and knowledge elements
- Exercises to be conducted at the end of the learning unit.

Assessment and Skill Codes

Assessment Codes: to indicate how each unit learning outcome is to be assessed:

T = Theory

PW = Project Work

P = Practical

SD = Skills Demonstration (on-the-job)

D = Drawing

Skills Codes: to indicate which skill(s) each KLP addresses:

Core Skills

TK = Technical Knowledge

Sk = Practical skill

Generic Skills

Generic skills will include basic skills such as literacy and numeracy, and also key skills such as communication, team working, planning, problem solving, and customer handling. Generic skills are those that apply across a variety of jobs and life contexts.

Fundamental Skills

M = Maths

H = Hazards associated with task

Sc = Science

IT = Information Technology

H&S = Health & Safety

D = Drawing

Personal Skills¹

TW = Teamwork

COM = Communications

Conceptual Skills

LL = Learning to Learn

PS = Problem Solving

¹ (current PS code used under Conceptual Skills)

Learning Units for Module 1

Module 1: 1st Fixing and Site Works**Duration: 77 hours**

Unit No.		Duration Hours
1.	Basic Setting Out	14
2.	Building Aesthetics and Sustainability	15
3.	Construction Documents and Project Planning	11
4.	Thermal Insulation and Heat Transfer	8
5.	Mass and Density of Solids	6
6.	Principles of Moments and Mechanics of Force	9
7.	Conic Sections	8
8.	Development of Skew Arches and Intersecting Vaults	6

Module Objectives

Module 1: 1st Fixing and Site Works**Duration: 77 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	From site drawings use levelling equipment to determine and record levels from given datums also erect profile boards that indicate the position and layout of foundations	T, SD	1st Fixing and Sitework, LO13
2.1	Discuss elements of conservation and preservation relevant to styles of buildings through different periods of time	T	1st Fixing and Sitework, LO9 2nd Fixing, LO3
2.2	Discuss the principles of and actions that promote sustainability in the construction industry	T	1st Fixing and Sitework, LO9 2nd Fixing, LO4
3.1	Discuss the principles of project planning, the activities and documentation needed to complete a given project	T	2nd Fixing, LO3
4.1	Discuss the principles of thermal insulation and the properties of materials that affect heat transmission	T	1st Fixing and Sitework, LO7
5.1	Determine, using mathematical formulae, the mass and density of solids	T	1st Fixing and Sitework, LO10
6.1	Determine, using mathematical formulae, the beam reaction forces and force of movement in a beam	T	1st Fixing and Sitework, LO10
7.1	Using the principles of geometrical drawing, define the true shape of a cone that are parabola, hyperbola and elliptical sections	P	Timber Roofs, LO10
8.1	Using the principles of geometrical drawing, develop the surfaces of intersecting and skew arches	P	Timber Roofs, LO10

Module 1: 1st Fixing and Site Works

Unit 1: Basic Setting Out**Duration: 14 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Describe various methods of levelling
T	1.1.2	Describe methods of setting out of foundations
SD	1.1.3	Set up and operate levelling instruments
SD	1.1.4	Use datums, benchmarks and boning rods. Read staff and record levels
SD	1.1.5	Set up profiles for site setting out of foundations
SD	1.1.6	Read and interpreting plans and drawings

Key Learning Points

TK	1.1.1.1	Methods of levelling on site
TK	1.1.2.1	Methods of setting out foundations
TK Sk	1.1.3.1	Straight edge and spirit level
TK Sk	1.1.3.2	Water level
TK Sk	1.1.3.3	Optical levelling instruments
TK Sk	1.1.4.1	Reading of staff
TK Sk	1.1.4.2	Recording of levels
TK Sk	1.1.4.3	Datums and bench marks
TK Sk	1.1.4.4	Boning rods
TK Sk	1.1.5.1	Profiles for site setting out
TK Sk	1.1.6.1	Reading and interpreting plans and drawings

Training Resources

- Project area
- Profiles, leveling instruments

Exercise

1. From a given datum, set out exercises as per given drawing from trainer
2. Take a given level from the datum peg and level all around the perimeter of the exercise, finishing at the datum
3. The pegs will be placed in position as per drawing
4. Set out foundation for 300mm wall for a building using profiles with all the necessary markings for walls and foundations
5. Take readings as per drawing and log same

Module 1: 1st Fixing and Site Works

Unit 2: Building Aesthetics and Sustainability**Duration: 15 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Describe the characteristics and principle styles of building
T	2.1.2	Describe the principles of building aesthetics, conservation and preservation
T	2.1.3	Correct designs when renovating or extending buildings to maintain building aesthetics
T	2.1.4	Identify factors contributing to or affecting building aesthetics
T	2.1.5	Identify unique features of different periods
T	2.2.1	Define the principles of sustainability
T	2.2.2	Identify actions that promote sustainability in the construction industry

Key Learning Points

TK	2.1.1.1	Characteristics and changes in building style through the ages; shape, form or outline and materials used
TK	2.1.2.1	Principles of building aesthetics, conservation and preservation
TK	2.1.3.1	Maintaining building aesthetics when renovating or extending
TK	2.1.3.2	Elements of conservation and preservation
TK	2.1.4.1	Factors contributing to or affecting building aesthetics and built environment
TK	2.1.5.1	Period features
TK	2.1.5.2	Sketching of buildings
TK	2.2.1.1	Building footprint
TK	2.2.1.2	Reducing waste
TK	2.2.1.3	Saving energy
TK	2.2.2.1	Recycle, reuse
TK	2.2.2.2	Storage of materials
TK	2.2.2.3	Controlling waste and litter

Training Resources

- Classroom facilities

Exercise

1. Answer relevant trainer generated questions

Module 1: 1st Fixing and Site Works

Unit 3: Construction Documents and Project Planning**Duration: 11 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Describe the principles of project planning
T	3.1.2	Identify the specific activities that need to be performed to complete a given project
T	3.1.3	Identify and document items that affect activities
T	3.1.4	Describe the purpose of contract documents
T	3.1.5	Describe the purpose of communication documents
T	3.1.6	Identify documents for requisition of materials
T	3.1.7	Identify the methods of recording documents
T	3.1.8	Interpret and plot using different types of graphs and charts
T	3.1.9	Describe the principles of joinery design and production methods
T	3.1.10	Develop a project plan for a given exercise

Key Learning Points

TK	3.1.1.1	Principles of project planning
TK	3.1.2.1	Activity identification
TK	3.1.2.2	Sequencing
TK	3.1.3.1	Durations
TK	3.1.3.2	Resources
TK	3.1.3.3	Changes/variations
TK	3.1.4.1	Drawings
TK	3.1.4.2	Specifications
TK	3.1.4.3	Schedules
TK	3.1.4.4	Bill of quantities
TK	3.1.4.5	Conditions of contract
TK	3.1.5.1	Client's/architect's/engineer's instructions
TK	3.1.5.2	Memos and messages
TK	3.1.5.3	Requests for information's
TK	3.1.5.4	Confirmation notices
TK	3.1.6.1	Request for purchase
TK	3.1.6.2	Delivery notes and records
TK	3.1.6.3	Invoices
TK	3.1.7.1	Timesheets/dayworks sheets
TK	3.1.7.2	Site diary

Module 1: 1st Fixing and Site Works

Unit 3: Construction Documents and Project Planning**Duration: 11 hours****Key Learning Points cont'd**

TK	3.1.8.1	Reading and interpreting charts
TK	3.1.8.2	Plotting charts to represent information
TK	3.1.9.1	Layout of workshop for efficient production
TK	3.1.9.2	Plan joinery schedule for workshop
TK	3.1.9.3	Controlling waste and litter
TK	3.1.10.1	Project plan
TK	3.1.10.2	Project schedule

Training Resources

- Classroom facilities

Exercise

1. Answer relevant trainer-generated questions
2. Develop a project plan for a craft-related project

Unit 4: Thermal Insulation and Heat Transfer**Duration: 8 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 4.1.1 | Describe and apply the principles of thermal insulation and thermal resistance |
| T | 4.1.2 | Identify rate and factors affecting heat transmission of different materials |
| T | 4.1.3 | Calculate simple 'U' values |

Key Learning Points

- | | | |
|------|---------|--|
| TK | 4.1.1.1 | Principles of thermal insulation and heat transfer |
| TK | 4.1.1.2 | Conduction, convection and radiation |
| TK | 4.1.1.3 | Thermal resistance of materials |
| TK | 4.1.1.4 | Properties of thermal insulation materials |
| TK | 4.1.1.5 | Sketch cross sections of insulation details |
| TK | 4.1.2.1 | Thermal conductivity |
| TK | 4.1.2.2 | Factors affecting heat transmission |
| TK M | 4.1.3.1 | Simple 'U' value calculation |

Training Resources

- Classroom facilities

Exercise

1. Answer relevant trainer-generated questions
2. Research a trainer generated project

Unit 5: Mass and Density of Solids**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 5.1.1 | Define the principles of mass and density |
| T | 5.1.2 | Apply the principles of mass and density |
| T | 5.1.3 | Understand the basics of relative density |

Key Learning Points

- | | | |
|---|---------|--|
| M | 5.1.1.1 | Units of measurement |
| M | 5.1.1.2 | Principles of mass and density |
| M | 5.1.2.1 | Calculating volume of irregular shapes |
| M | 5.1.2.2 | Calculating mass of irregular solids |
| M | 5.1.2.3 | Calculating density of irregular solids from given data using correct formulae |
| M | 5.1.3.1 | Basic principles of basic density |

Training Resources

- Classroom facilities

Exercise

1. Calculate the density of a given shape using the required formula

Unit 6: Principles of Moments and Mechanics of Force**Duration: 9 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 6.1.1 | Explain the principles of moment and force |
| T | 6.1.2 | Define law of the lever |
| T | 6.1.3 | Apply the principles of moments of force |

Key Learning Points

- | | | | |
|----|---|---------|---|
| TK | M | 6.1.1.1 | Defining moment and force |
| TK | M | 6.1.2.1 | Law of the lever |
| M | | 6.1.3.1 | Calculating force and moment |
| M | | 6.1.3.2 | Calculation of beam reactions for simply supported beams |
| M | | 6.1.3.3 | Calculation of force required to move an object from given data |

Training Resources

- Classroom facilities

Exercise

1. Complete calculations for a trainer-generated exercise

Unit 7: Conic Sections**Duration: 8 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| P | 7.1.1 | Draw plan, elevation and sections of parabola, hyperbola and elliptical sections of a cone |
| P | 7.1.2 | Determine by drawing the true shapes of Parabola, Hyperbola and Elliptical sections of a cone |

Key Learning Points

- | | | |
|---|---------|---|
| D | 7.1.1.1 | Drawing plan, elevation and sections of cut cones |
| D | 7.1.2.1 | Determination of true shapes from vertical, parallel and oblique cuts of a cut cone |

Training Resources

- Classroom facilities
- Drawing equipment
- Drawing paper

Exercise

1. Complete trainer-generated exercises

Unit 8: Development of Skew Arches and Intersecting Vaults**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| P | 8.1.1 | Interpret and draw plans, elevations and sections of skew arches and intersecting vaults |
| P | 8.1.2 | Draw and develop the surfaces of skew arches and intersecting vaults |
| P | 8.1.3 | Develop arch soffits |
| P | 8.1.4 | Determine true shape of ribs for intersecting vaults |

Key Learning Points

- | | | |
|---|---------|--|
| D | 8.1.1.1 | Interpreting and drawing plans, elevations and sections of skew arches and intersecting vaults |
| D | 8.1.2.1 | Development of skew arch and vault surfaces |
| D | 8.1.3.1 | Development of arch soffits |
| D | 8.1.4.1 | Development of rib shapes |

Training Resources

- Classroom facilities
- Drawing equipment
- Drawing paper

Exercise

1. Draw and develop the surface of intersecting and skew arches

Learning Units for Module 2

Module 2: Timber Roofs**Duration: 78 hours**

Unit No.		Duration Hours
1.	Construction of Hipped Roofs of Unequal Pitch	14
2.	Roofs of Oblique Plan	14
3.	Semi-circular Hipped End Roofs	10
4.	Roof Trusses – Mid to Large Span	6
5.	Roof Geometry	12
6.	Segmental Bay Roof	12
7.	Interpretation	10

Module Objectives

Module 2: Timber Roofs**Duration: 78 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Demonstrate the knowledge and skills required to set out all components and construct a hip roof of unequal pitch and irregular in plan	T, P	Timber Roofs, LO3, LO12
2.1	Demonstrate the knowledge and skills required to set out all components and construct a hip roof irregular in plan	T, P	Timber Roofs, LO3, LO12
3.1	Demonstrate the knowledge and skills required to set out all components required for the construction of a semi-circular hipped end roofs	T, P	Timber Roofs, LO3, LO12
4.1	Identify and describe the principles of different roof truss designs and their methods of construction for mid to large span buildings	T	Timber Roofs, LO13
5.1	Using geometrical principles, determine the true shape, bevels and cuts of all components for a turret and dome roofs	P	Timber Roofs, LO10
6.1	Describe the methods of construction of a pitched roof over a segmental projecting bay	T	Timber Roofs LO12
6.2	Using the principles of orthographic projection, produce drawings of a pitched roof over a segmental projecting bay	P	Timber Roofs, LO12 1st Fixing and Sitework, LO11
7.1	Using geometrical principles determine the true shape of intersecting solids	P	Timber Roofs LO10

Module 2: Timber Roofs

Unit 1 : Construction of Hipped Roofs of Unequal Pitch**Duration: 14 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

P	1.1.1	Set out, mark out and construct roofs of unequal pitches and irregular in plan
P	1.1.2	Mark out cut overhang and trimming at eaves
T	1.1.3	Sketch drawings of structural members

Key Learning Points

TK Sk	1.1.1.1	Setting out and marking out of roof
TK Sk	1.1.1.2	Position of braces
TK Sk	1.1.1.3	Triangulation of roof members in relation to span
TK Sk	1.1.1.4	Jointing and fixing of wall plates
TK Sk	1.1.1.5	Position of hip lines on plan
TK Sk	1.1.1.6	Factors related to setting out roof of unequal pitches
TK Sk	1.1.2.1	Marking out of overhang
TK Sk	1.1.2.2	Cutting of overhang and eaves
TK	1.1.3.1	Drawing of roof
TK	1.1.3.2	Roof structural members

Training Resources

- Classroom facilities
- Project area
- Carpentry & Joinery tool kit
- Equipment – power tools
- Materials – timber

Exercise

1. Answer relevant trainer-generated questions
2. Sketch drawings of structural members
3. As part of a team construct a roof of unequal pitch and not square in plan

Unit 2: Roofs of Oblique Plan Shape**Duration: 14 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 2.1.1 | Outline the setting-out requirements for a hipped roof having an irregular plan shape |
| P | 2.1.2 | Mark out, cut and construct a hipped roof having irregular plan shape |

Key Learning Points

- | | | |
|----|---------|--|
| Sk | 2.1.1.1 | Setting out requirements for oblique plan roof |
| Sk | 2.1.2.1 | Constructing a hipped roof of oblique plan |
| Sk | 2.1.2.2 | Set out, mark out and cut hip rafters |
| Sk | 2.1.2.3 | Set out, mark out and cut common rafters |
| Sk | 2.1.2.4 | Set out, mark out and cut jack rafters |
| Sk | 2.1.2.5 | Set out, mark out and cut purlins |

Training Resources

- Classroom facilities
- Project area
- Carpentry & Joinery tool kit
- Equipment – power tools
- Materials – timber

Exercise

1. Answer relevant trainer-generated questions
2. Sketch drawings of structural members
3. As part of a team construct a hipped roof of oblique plan

Unit 3: Semi-circular Hipped End Roofs**Duration: 10 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	3.1.1	Describe the principles of construction for a roof with a semi-circular hipped end
P	3.1.2	Set out a roof with a semi-circular hipped end
T	3.1.3	Describe shaping of wall plates and methods of fixing rafters at wallplate/apex
T	3.1.4	Sketch drawings of structural members

Key Learning Points

TK	3.1.1.1	Principles of constructing roof with semi-circular hipped end
Sk	3.1.2.1	Setting out of semi-circular hipped end roof
Sk	3.1.2.2	Eaves detail
TK	3.1.3.1	Shaping and fixing wallplates
TK	3.1.3.2	Fixing of rafters at wallplate and apex
TK	3.1.4.1	Sketch drawing of semi-circular hipped end roof

Training Resources

- Classroom facilities
- Project area
- Setting out equipment

Exercise

1. Answer relevant trainer-generated questions
2. Sketch drawings of structural members
3. Set out semi-circular hipped end roof

Unit 4: Roof Trusses – Mid to Large Span Duration: 6 hours**Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 4.1.1 | Identify and describe different roof trusses and their recommended spans |
| T | 4.1.2 | Identify and state the method of construction and design principles of roof trusses |
| T | 4.1.3 | Describe and sketch structural members of trusses and jointing methods |

Key Learning Points

- | | | |
|----|---------|--|
| TK | 4.1.1.1 | Types of roof trusses |
| TK | 4.1.1.2 | Types of rafters |
| TK | 4.1.1.3 | Recommended spans |
| TK | 4.1.2.1 | Methods of construction and design of roof trusses |
| TK | 4.1.2.2 | Identify different types of timber connectors |
| TK | 4.1.2.3 | Design principles of roof trusses |
| TK | 4.1.3.1 | Structural members of trusses |
| TK | 4.1.3.2 | Jointing methods |
| TK | 4.1.3.3 | Sketching drawings |

Training Resources

- Classroom facilities

Exercise

1. Answer relevant trainer-generated questions
2. Sketch drawings of structural members

Unit 5: Roof Geometry**Duration: xxx hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| P | 5.1.1 | Determine by drawing true shape, bevels and cuts for turret and dome roofs |
| P | 5.1.2 | Draw plans elevations and sections and develop curved surfaces |
| P | 5.1.3 | Develop ribs |

Key Learning Points

- | | | |
|---|---------|--|
| D | 5.1.1.1 | Development of true shape, bevels and cuts for curved surfaces |
| D | 5.1.2.1 | Drawing plans, elevations, sections |
| D | 5.1.3.1 | Development of ribs |

Training Resources

- Classroom facilities
- Drawing equipment
- Drawing paper

Exercise

1. Determine true shape for given turret roof
2. Determine true shape for given dome roof

Unit 6: Segmental Bay Roof**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	6.1.1	Describe the method of construction of a pitched roof over a segmental projecting bay
P	6.1.2	Set out, mark out and construct a segmental bay roof
P	6.2.1	Draw segmental curve of bay
P	6.2.2	Draw elevation, plan and end view of roof to segmental bay

Key Learning Points

TK	6.1.1.1	Methods of construction of segmental bay roof
TK Sk	6.1.2.1	Setting out, Marking out
TK Sk	6.1.2.2	Construction segmental bay roof
D	6.2.1.1	Forming segmental curve
D	6.2.1.2	Forming wall plate
D	6.2.1.3	Position of rafters
D	6.2.1.4	True length and bevels of rafters
D	6.2.2.1	Drawing elevation, plan and end view
D	6.2.2.2	Draw to develop true length of rafters and correct bevels

Training Resources

- Classroom facilities
- Project area
- Carpentry & Joinery tool kit
- Equipment – power tools
- Drawing paper
- Materials – timber

Exercise

1. Draw elevation, plan and end view of a roof to a segmental bay
2. As part of a team construct a segmental bay roof

Unit 7: Interpenetration**Duration: 10 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| P | 7.1.1 | Draw and develop true shape of surfaces of intersecting solids |
| P | 7.1.2 | Interpret drawings, plans, elevations and sections of solids |

Key Learning Points

- | | | |
|---|---------|--|
| D | 7.1.1.1 | Obtaining lines and shapes of intersecting solids |
| D | 7.1.1.2 | Developing true shape of surfaces of intersecting solids |
| D | 7.1.2.1 | Interpreting and drawing plans, elevations and sections of intersecting solids |

Training Resources

- Classroom facilities
- Drawing equipment
- Materials – paper

Exercise

1. Given a drawing of intersecting solids, show the true shape of curves and intersections

Learning Units for Module 3

Module 3: Joinery**Duration: 79 hours**

Unit No.		Duration Hours
1.	Stair Manufacturing	12
2.	Wreathed String Stair Manufacturing	6
3.	Construction of Louvers in Curved Frames	12
4.	Glue/laminating Construction	18
5.	Handrail Wreath Manufacturing	12
6.	Simple and Compound Interest	5
7.	Scale Drawing – Joinery	14

Module Objectives

Module 3: Joinery**Duration: 79 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Demonstrate the knowledge and skills required to manufacture, in accordance with the TGDs, a cut string staircase containing tapered steps	T, P	Joinery, LO2, LO11
2.1	Demonstrate the knowledge and skills required to produce a full setting out of the strings for a geometrical stairs in accordance with the TGDs	T, P	Joinery, LOs, LO11
3.1	Demonstrate the knowledge and skills required to manufacture a curved frame containing louvres	T, P	Joinery, LO2,
4.1	Describe the principles of design, manufacture, the use of jigs the conversion and grading of timber for laminated timber structural components	T, P	Joinery, LO4
5.1	Demonstrate the knowledge and skills required to set out, produce face moulds and manufacture a handrail wreath joined to a pitched and a level rail	T, P	Joinery, LO3, LO12
6.1	Define, and using mathematical formulae, the simple and compound interest due on any given sum of money	T	2nd Fixing, LO9
7.1	Demonstrate the knowledge and skill to read, interpret and produce scale drawings of joinery components as a means of communicating technical information	P	Joinery, LO6

Unit 1: Stair Manufacturing**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	1.1.1	Describe the principles of design and construction of a cut string stairs with tapered steps
P	1.1.2	Set out and construct a stairs containing a cut string and a set of tapered steps
T	1.1.3	Summarise the Technical Guidance Documents regarding stairs with tapered steps

Key Learning Points

TK	1.1.1.1	Principles of design of a cut string stairs with tapered steps
TK	1.1.1.2	Describe method of construction of tapered threads
Sk	1.1.2.1	Marking out and constructing cut string stairs
Sk	1.1.2.2	Identify method of jointing strings
Sk	1.1.2.3	Identify method of jointing threads
Sk	1.1.2.4	Explain method of fitting string to newel post
Sk	1.1.2.5	Jointing steps to strings and newels
TK	1.1.3.1	Technical Guidance Documents relating to cut string stairs with tapered steps

Training Resources

- Classroom facilities
- Workshop
- Carpentry & Joinery tool kit
- Equipment – power tools
- Materials – timber

Exercise

1. Answer relevant trainer-generated questions
2. As part of a team of two, manufacture a cut string stairs containing tapered steps

Unit 2: Wreathed String Stair Manufacturing Duration: 6 hours**Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Set out the true shape of a wreathed string for a quarter and half-turn stairs
T	2.1.2	Define methods of forming wreathed strings for geometrical stairs and jointing techniques
P	2.1.3	Set out required shape of wreathed portion for geometrical stairs
T	2.1.4	Summarise the Technical Guidance Documents related to geometrical/wreathed stairs

Key Learning Points

TK	2.1.1.1	Setting out the true shape of a wreathed string for a quarter-turn and half-turn stairs
TK	2.1.2.1	Methods of forming wreathed strings for geometrical stairs
TK	2.1.2.2	Describe how drum is developed to construct wreathed string for geometrical stairs
TK	2.1.2.3	Bending of string
TK	2.1.2.4	Fitting of staves
Sk	2.1.3.1	Setting out wreathed portion for geometrical stairs
TK	2.1.4.1	Building regulations/wreathed string stairs

Training Resources

- Course Notes

Exercise

1. Answer relevant trainer-generated questions
2. Produce a setting out for a wreathed string

Module 3: Joinery

Unit 3: Construction of Louvers in Curved Frames**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 3.1.1 | Set out and determine true face, edge bevels and trench bevels in circular louvre frames |
| P | 3.1.2 | Set out and manufacture a louvre frame |

Key Learning Points

- | | | |
|------|---------|--------------------------------------|
| TK D | 3.1.1.1 | Method of obtaining louvre bevels |
| TK D | 3.1.1.2 | Methods of obtaining trench bevels |
| TK | 3.1.1.3 | Sketching of sections |
| TK | 3.1.2.1 | Marking out |
| Sk | 3.1.2.2 | Methods of shaping and housing frame |
| Sk | 3.1.2.3 | Jointing methods |
| Sk | 3.1.2.4 | Cutting and fitting louvres |
| Sk | 3.1.2.5 | Gluing and assembling |
| Sk | 3.1.2.6 | Sanding and finishing |

Training Resources

- Workshop facilities
- Carpentry & Joinery tool kit
- Equipment – power tools
- Materials – timber

Exercise

1. Answer relevant trainer-generated questions
2. Manufacture a curved frame containing louvres

Unit 4: Glue/laminating Construction**Duration: 18 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	4.1.1	Describe the principles of design, manufacture and uses for glued/laminated timber structural components
T	4.1.2	Identify conversion and grading methods for laminates
T	4.1.3	Sketch methods of construction
P	4.1.4	Construct a curved jig to manufacture a component using laminates

Key Learning Points

TK	4.1.1.1	Principles of design
TK	4.1.1.2	Use of glue laminated timber
TK	4.1.1.3	Determine thickness of laminates for different types of curves
TK	4.1.1.4	Identify types of glue, preparation and gluing process
TK	4.1.1.5	Describe different cramping methods
TK	4.1.1.6	Describe how laminates are length jointed
Sk	4.1.2.1	Operate meter to check moisture content
TK	4.1.2.2	Conversion and grading of timber for laminates
D	4.1.3.1	Sketches of sections
Sk	4.1.4.1	Preparation and setting out of jig to suit required shape
Sk	4.1.4.2	Assemble and cramp laminates in jig
Sk	4.1.4.3	Rebate and mould laminate component
Sk	4.1.4.4	Finish laminate correctly; smooth without blemishes
Sk	4.1.4.5	On-site fixing methods

Training Resources

- Classroom facilities
- Carpentry & Joinery tool kit
- Workshop facilities
- Equipment – power tools
- Machine workshop facilities
- Materials – timber

Exercise

1. Answer relevant trainer-generated questions
1. Manufacture a jig to mould a curved laminated component

Module 3: Joinery

Unit 5: Handrail Wreath Manufacturing**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	Describe the methods and principles of construction of a handrail wreath
P	5.1.2	Develop a face mould for setting out and shape a wreath to a given handrail section
P	5.1.3	Set out, mark out and cut a face mould
P	5.1.4	Set out and manufacture a handrail wreath to pitched and level rail
P	5.1.5	Set out twist bevel to connect handrail wreath

Key Learning Points

TK	5.1.1.1	Location of wreath
TK	5.1.1.2	Principles and methods of construction
Sk	5.1.2.1	Apply geometrical principles
Sk	5.1.2.2	Determine and apply face moulds
Sk	5.1.3.1	Marking and cutting out of face mould
Sk	5.1.4.1	Determine correct size of materials
Sk	5.1.4.2	Use of band saw to cut timber for handrail wreath
Sk	5.1.5.1	Set out twist bevel to construct handrail wreath
Sk	5.1.5.2	Joint handrail sections

Training Resources

- Classroom facilities
- Carpentry & Joinery tool kit
- Workshop facilities
- Equipment – power tools
- Machine workshop facilities
- Materials – timber

Exercise

1. Answer relevant trainer-generated questions
2. Manufacture a handrail wreath to a pitched and level handrail

Unit 6: Simple and Compound Interest**Duration: 5 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| T | 6.1.1 | Define the formula for calculating simple interest |
| T | 6.1.2 | Define the formula for calculating compound interest |

Key Learning Points

- | | | |
|---|---------|---|
| M | 6.1.1.1 | Simple interest, principle, rate, amount |
| M | 6.1.1.2 | Use formulae to calculate simple interest |
| M | 6.1.2.1 | Compound interest, principle, rate, amount |
| M | 6.1.2.2 | Use formulae to calculate compound interest |

Training Resources

- Classroom facilities

Exercise

1. Solve trainer-generated problems

Unit 7: Scale Drawing – Joinery**Duration: 14 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 7.1.1 Produce drawings of joinery components to scale
- P 7.1.2 Interpret detailed joinery drawings

Key Learning Points

- D 7.1.1.1 Produce scale drawings
- D 7.1.2.1 Interpretation of detailed drawings

Training Resources

- Classroom facilities
- Drawing equipment
- Drawing paper

Exercise

1. Produce scale drawings of stairs with tapered steps
2. Produce scale drawings of cut string with tapered steps
3. Produce scale drawings of handrail wreath
4. Produce scale drawings of louvers in curved frames

Learning Units for Module 4

Module 4: 2nd Fixing Activities**Duration: 72 hours**

Unit No.		Duration Hours
1.	Mouldings	8
2.	Fire Doors and Frames	12
3.	Commercial Fitted Furniture	6
4.	Wall Panelling	6
5.	Handrailing	8
6.	Profit and Loss	6
7.	Splayed Work	10
8.	Scale Drawing – 2nd Fixing	12
9.	Building Information Modelling	4

Module Objectives

Module 4: 2nd Fixing Activities**Duration: 72 hours****At the end of this module each apprentice will be able to:**

No	Activity	Assessment Type	Standard Code/LO
1.1	Demonstrate the knowledge and skill to determine and manufacture the true shape of a raking mould to level mould obtuse and square in plan	T, P	2nd Fixing LO11
2.1	Discuss the principles and manufacture of fire resistance door with reference to the requirements of the TGD's which include the fitting of doors and frame	T, P	2nd Fixing LO8, LO12 Joinery LO3, LO5
3.1	Describe the principles of design and construction of purpose-made counters and fitted furniture, identify the different finishes and fittings	T	2nd Fixing LO7
4.1	Describe the principles and methods of construction of wall panels, set out a straight and curved section of traditional and contemporary panelling	T, P	2nd Fixing LO5
5.1	Describe the principles of manufacture and produce templates for curved handrails	T, P	2nd Fixing LO2
6.1	Using sound business models determine labour/ equipment/ overhead costs and determine the profit or loss of a given craft related project	T	2nd Fixing LO9
7.1	Using the principles of geometrical drawing, determine the true shape of splayed linings and hoppers	P	2nd Fixing LO10
8.1	Demonstrate the knowledge and skill to read, interpret and produce scale drawings of 2nd fix components as a means of communicating technical information	P	2nd Fixing LO10, LO14
9.1	Define the principles of Building Information Modelling and compare its advantages over more traditional systems as a means of communication between professions	T	2nd Fixing

Unit 1: Mouldings**Duration: 8 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|--|
| P | 1.1.1 | Set out to determine true shape of raking moulding to level moulding obtuse and square in plan |
| P | 1.1.2 | Index and transfer points |
| P | 1.1.3 | Develop correct shape of moulding |
| P | 1.1.4 | Develop true shape of cutting profiles for machining |
| P | 1.1.5 | Determine correct angle of mitre |

Key Learning Points

- | | | |
|----|---------|---|
| Sk | 1.1.1.1 | Setting out to determine true shape of raking moulding, obtuse and square |
| Sk | 1.1.2.1 | Indexing and transferring of points |
| Sk | 1.1.3.1 | Develop shape of mouldings |
| Sk | 1.1.4.1 | Develop true shape of cutting profiles |
| Sk | 1.1.5.1 | Angles of mitres |

Training Resources

- Workshop facilities
- Project area
- Setting out equipment

Exercise

1. Manufacture a raking mould and fix in-situ

Unit 2: Fire Doors and Frames**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	2.1.1	Explain different types of fire doors and fire rating
T	2.1.2	Explain the principles of fire resistant door construction
T	2.1.3	Sketch a fire resistant door
T	2.1.4	Summarise the Technical Guidance Documents related to fire doors
P	2.1.5	Fit and hang fire door and frame

Key Learning Points

TK	2.1.1.1	Types of doors
TK	2.1.1.2	Fire ratings
TK	2.1.2.1	Principles of fire door construction
TK	2.1.2.2	Intumescent materials
TK	2.1.2.3	Explain how fire doors are fitted and hung
TK	2.1.2.4	Glass and glazing methods
TK	2.1.3.1	Sketch of fire doors
TK	2.1.4.1	Technical Guidance Documents relating to fire doors
Sk	2.2.1.1	Fitting, hanging, associate Ironmongery

Training Resources

- Classroom Facilities

Exercise

1. Answered relevant trainer generated questions
2. Fit and hang a fire rated door in a fire rated door frame including suitable ironmongery

Unit 3: Commercial Fitted Furniture**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 3.1.1 | Describe the construction of purpose-made counters and fitments |
| T | 3.1.2 | State principles of design and construction |
| T | 3.1.3 | Identify and describe different finishes and fittings |

Key Learning Points

- | | | |
|----|---------|--|
| TK | 3.1.1.1 | Construction of purpose-made counters and fittings |
| TK | 3.1.2.1 | Principles of design and construction |
| TK | 3.1.2.2 | Jointing methods |
| TK | 3.1.2.3 | Material for counters type and sizes |
| TK | 3.1.2.4 | Standard heights and widths of counters |
| TK | 3.1.3.1 | Finishings and fittings |

Training Resources

- Course Notes

Exercise

1. Answered relevant trainer generated questions

Unit 4: Wall Panelling**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	4.1.1	Describe the construction, fitting and fixing methods of straight and curved wall panelling
P	4.1.2	Set out section of panelling
T	4.1.3	Sketch flush panels, full height panelling and dado panelling
T	4.1.4	Sketch corner jointing methods for panel surfaces

Key Learning Points

TK	4.1.1.1	Methods of construction
TK	4.1.1.2	Fitting and fixing of straight and curved wall panelling
TK	4.1.1.3	Principles of design
TK	4.1.1.4	Types and sizes of materials
TK	4.1.1.5	Types of raised and moulded panels
TK	4.1.1.6	Jointing and assembly
Sk	4.1.2.1	Setting out panelling
Sk	4.1.2.2	Cutting list for panelling
TK	4.1.3.1	Full height and dado panelling
TK	4.1.4.1	Corner jointing methods

Training Resources

- Classroom facilities
- Workshop facilities
- Setting out equipment

Exercise

1. Set out a section of full height and dado wall panelling

Unit 5: Handrailing**Duration: 8 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	5.1.1	Describe the principles of manufacture of curved handrails
T	5.1.2	Describe method of fixing curves to handrail
P	5.1.3	Set out a template for a handrail of single curvature scroll

Key Learning Points

TK	5.1.1.1	Principles of manufacture of handrails
TK	5.1.1.2	Reasons for use of curves
TK	5.1.2.1	Methods of fixing curves to handrails
Sk	5.1.3.1	Making of templates
Sk	5.1.3.2	Setting out

Training Resources

- Classroom facilities
- Workshop facilities
- Setting out equipment

Exercise

1. Set out a template for a handrail of single curvature scroll

Unit 6: Profit and Loss**Duration: 6 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- | | | |
|---|-------|---|
| T | 6.1.1 | Calculate labour/equipment/overheads costs for projects |
| T | 6.1.2 | Calculate profit and loss |

Key Learning Points

- | | | |
|---|---------|------------------------------------|
| M | 6.1.1.1 | Labour, insurances, tax costs |
| M | 6.1.1.2 | Equipment hire and machinery costs |
| M | 6.1.2.1 | Profit and loss |
| M | 6.1.2.2 | Breakdown of costs |

Training Resources

- Classroom facilities

Exercise

1. Solve trainer-generated related problems

Unit 7: Splayed Work**Duration: 10 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 7.1.1 Determine bevels and true shapes for members angled to two planes
- P 7.1.2 Draw square, triangular and polygonal hoppers and splayed linings

Key Learning Points

- D 7.1.1.1 True shape of surfaces
- D 7.1.1.2 Views required to obtain bevels and surfaces, i.e. plans, elevations, sections
- D 7.1.1.3 Determination of face and edge cuts
- D 7.1.2.1 Draw square, triangular and polygonal hoppers and splayed linings

Training Resources

- Classroom facilities
- Drawing equipment
- Drawing paper

Exercise

1. Determine the true shape of the following:
 - Triangular and polygonal hoppers
 - Splayed linings

Module 4: 2nd Fixing Activities

Unit 8: Scale Drawing – 2nd Fixing**Duration: 12 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

- P 8.1.1 Produce drawings of 2nd Fixing components to scale
- P 8.1.2 Interpret detailed 2nd Fixing drawings

Key Learning Points

- D 8.1.1.1 Produce scale drawings
- D 8.1.2.1 Interpretation of detailed drawings

Training Resources

- Classroom facilities
- Drawing equipment
- Drawing paper

Exercise

1. Produce scale drawings of shop fronts/screens
2. Produce scale drawings of wall panelling

Module 4: 2nd Fixing Activities

Unit 9: Building Information Modelling**Duration: 4 hours****Learning Outcomes**

At the conclusion of this unit each apprentice will be able to:

T	9.1.1	Describe the principles and functions of Building Information Modelling (BIM)
T	9.1.2	Identify the processes involved in the generation of digital Building Information Modelling
T	9.1.3	Identify the Key Differences between traditional computer aided design (CAD) and Building Information modelling (BIM)
T	9.1.4	Evaluate the importance of collaboration
T	9.1.5	Technology used across disciplines

Key Learning Points

TK	9.1.1.1	Cost Benefits, Clash detections
TK	9.1.2.1	Sales, Design, Quantity Takeoff, Simulation and Analysis, Site Logistics
TK	9.1.3.1	2D CAD, 4D BIMs
TK	9.1.4.1	Trades and professions
TK	9.1.5.1	Physical Modelling, Computer Based Technology

Training Resources

- Classroom Facilities
- BIM programme

Exercise

1. Answered relevant trainer generated questions

Learning Units for Module 5

Module 5: Communications & Team Leadership**Duration: 22 hours**

Unit No.		Duration Hours
1.	Project Planning	12
2.	Leadership	8
3.	Reflective Practice	2

Module Objectives

Module 5 Communications & Team Leadership Duration: 22 hours

At the end of this module each apprentice will be able to:

Unit	Minimum Intended Programme Learning Outcomes (MIPLO)	Assessment Type	MIPLO
N/A	Demonstrate the ability to engage in reflective practice to develop independent learning, concepts, ideas and theories associated with reflective practice.	SD	1
N/A	Demonstrate underpinning knowledge of a range of information technologies to include word power point, excel email in a variety of media platforms and the policies and principles relevant to a vocational area.	SD	2
N/A	Research the elements and stages of team development to include different kinds of teams, a multi-team environment, the characteristics of an effective team and the need for different roles for the individuals. Participate in formal and informal working groups, to include leading or facilitating, note taking, summarising discussion, agreeing outcomes and action points setting SMART objectives.	SD	3
N/A	Use drafting, editing and proofreading skills and the correct conventions of language usage including spelling. Punctuation and syntax to produce formal written communications relevant to particular vocational areas, to include report, email, and basic excel and word.	SD	4
N/A	Evaluate in practical terms the elements of legislation that must be observed in a personal and or work context, to include health safety and welfare at work and communications-related legislation and the responsibilities that apply when working in a supervisory capacity.	SD	5
1	Lead progress on a work plan, to include taking corrective action to ensure successful completion of the plan, on-going monitoring of progress and evaluation Work independently and or in a supervisory capacity, displaying qualities such as assertiveness, self-confidence, and tact.	SD	6
2	Evaluate the concepts of leadership and management, different leadership and management styles and the principal theories that underpin this Demonstrate team leadership, to include team building supporting team members at different stages of team development.	SD	7

Unit 1: Project Planning**Duration: 12 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

- SD 1.1 Prepare a plan or project
- SD 1.2 Set tasks and milestones
- SD 1.3 Evaluate progress on a work plan
- SD 1.4 Measure and monitor progress of the project
- SD 1.5 Demonstrate effective problem solving skills

Key Learning Points

- SK 1.1.1 Setting SMART objectives
- SK 1.2.1 Assigning tasks and milestones: Scheduling, review techniques, resources
- SK 1.3.1 Work plans: problem solving, taking corrective action .work independently
- SK 1.4.1 Use of project planning software, project stages, planning, risk assessment, milestones
- SK 1.5.1 Steps involved to find solutions, evaluation of proposed alternatives

Training Resources

- Classroom setting
- Pens, paper

Exercise

1. Apprentices to draw up a project plan to include setting objectives, allocating resources

Unit 2: Leadership**Duration: 8 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

- | | | |
|----|-----|---|
| SD | 2.1 | Utilise team building techniques to enhance team performance |
| SD | 2.2 | Discuss the difference between leadership and management |
| SD | 2.3 | Participate in decision making as the team leader in line with team objectives |
| SD | 2.4 | Delegate tasks to team members whilst supporting the team and monitoring progress |
| SD | 2.5 | Apply appropriate conflict resolution techniques |

Key Learning Points

- | | | |
|----|-------|--|
| TK | 2.1.1 | Forming, Storming. Norming, Adjourning (Tuckman) |
| TK | 2.2.2 | Leadership: allocation of roles based on experience and expertise, direction leading the way Management :following set of rules allocating tasks seeking direction |
| TK | 2.3.1 | Listening skills, communication skills, matching team activities to objectives allocation of roles /responsibilities and resources, project plans project evaluation |
| TK | 2.4.1 | Scheduling, staging, identification of milestones and critical path analysis |
| TK | 2.5.1 | Conflict resolution techniques: effective listening and communication |

Training Resources

- Classroom setting
- Pens, paper

Exercise

1. Apprentices to make notes under the following headings: team building, team stages, team planning based on Objectives: project planning, conflict resolution:, team communications

Unit 3: Reflective Practice**Duration: 2 hours****Learning Outcomes**

By the end of this unit each apprentice will be able to:

- SD 3.1 Discuss experience of reflective writing
SD 3.2 Use reflective writing to demonstrate learning development

Key Learning Points

- TK 3.1.1 Learning styles, reflective practice styles
SK 3.2.2 Analysis of a group situation, balance between problematic and satisfying experience rules on reflection; group projects

Training Resources

- Classroom setting
- Pens, paper

Exercise

1. Apprentices to write up a reflective/analysis of a project planning group task detailing their experience working with small groups

Carpentry & Joinery

Curriculum

Introduction to Phases 1/3/5/7

ON-The-Job



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

Revision: 5.2

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Castleforbes Road,
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Phase 1 **On-the-Job Competence Assessment
Induction, Training Specifications**
On-the-Job Phase 1 Record of Training

Phase 3 **Assessments Schedule 3**
On-the-Job Assessment Schedule
(12 core assessments)

Phase 5 **Assessments Schedule 5**
On-the-Job Assessment Schedule
(8 core assessments)

Phase 7 **Assessments Schedule 7**
On-the-Job Assessment Schedule
(8 core assessments)

SOLAS - Policy Statement

Introduction

SOLAS is committed to a standards-based assessment system for all craft programmes. As part of this process, a series of assessment programmes has been produced to enable SOLAS to assess attainment for certification purposes. The design and development of these assessments is co-ordinated by the Curriculum and Assessment Development Unit in conjunction with Subject Matter Experts representing employer, trade union, educational and training interests, and is based on the National Standard for that Award.

Acknowledgement

The SOLAS Curriculum and Assessment Development Unit would like to acknowledge the support and participation of social partners, and training and educational providers, in the development of the occupational standards and curriculum for this craft.

Assessment

There are two types of assessment for apprenticeship - assessment in off-the-job and workplace competence assessment on-the-job. This document refers to workplace competence assessment which is used to obtain evidence of performance under workplace conditions. This evidence is collected by assessors using approved assessment techniques. This ensures that evidence of performance is available for verification purposes.

Certification

On successful completion of the approved assessment techniques, each apprentice will be awarded an Advanced Certificate Craft.

Assessment Security

The assessment book, as well as the apprentice's portfolio, provides evidence of the apprentice's workplace competence in the required assessments. It is essential that the assessor maintains the original copy of the assessment book in safekeeping for verification. It is the responsibility of the apprentice to update and maintain the portfolio for inspection and verification. Each workplace assessment has been validated and assessors must not adjust or alter in any way the Assessment Programme content.

Administration Information

Specific administration details are included in each assessment. It is important that assessors are familiar with the Workplace Competence Assessment Guidelines, which provide an overview of Workplace Assessment for Apprenticeship, and with the training and assessment requirements for their crafts.

Review and Development

SOLAS Curriculum and Assessment Development Unit invites constructive feedback on each assessment to ensure its continued conformance to the industrial and commercial standards required by industry, as agreed in the National Standard for that Award. All comments regarding assessments should be inserted in the standard Feedback Sheet, which is on the last page of this document, and then forwarded to Apprenticeship Feedback, SOLAS, Apprenticeship and Work Based Learning, Castleforbes House, Castleforbes Road, Dublin 1

Introduction to Phase 1

Purpose	The purpose of the on-the-job Phase 1 of the apprenticeship training and development programme is to provide the apprentice with introductory training. This training provides apprentices with the opportunity to learn and practice basic skills in the workplace.
Content	During Phase 1, the apprentice is introduced to basic skills in the workplace environment which they will develop to the required standards of accuracy, speed and quality. The apprentice works with experienced craftsperson's and is supervised in the acquisition and practice of these skills. These skills are specified in the objectives for each section of the Phase 1 on-the-job training specification. Each section of the Phase 1 training specification contains a list of tasks..
Assessment	Each section of the Phase 1 training specification contains a list of tasks which must be checked off and signed by the employer and apprentice when the apprentice has completed them successfully. On completion of Phase 1, an on-the-job Record of Training will also be completed by the employer and submitted to SOLAS as proof of the apprentice having completed this training. The apprentice will be briefed on how to record their achievements throughout their apprenticeship in their portfolios.

 Assessment/Skill Codes

Assessment/Skill codes

Valid and reliable assessment techniques for QQI awards are grouped into the following six broad categories: Assignment, Project, Skills Demonstration, Examination and Learner Record. A number of assessment instruments are developed using these techniques where an assessment instrument is the specific activity/task or question(s) devised by the assessor based on the specified assessment technique. The Assessment codes indicate the assessment instrument which is mapped to specific unit learning outcome being assessed:

Assessment Codes	
T = Theory	PW = Project Work
P = Practical	SD = Skills Demo

Fundamental Skills	
M = Maths	H = Hazards associated with task
Sc = Science	IT = Information Technology
H&S = Health & Safety	D = Drawing

Generic skills will include basic skills such as literacy and numeracy, and also key skills such as communication, team working, planning, problem solving, and customer handling. Generic skills are those that apply across a variety of jobs and life contexts.

Core Skills	Conceptual Skills	Personal Skills
TK = Technical knowledge	LL = Learning to Learn	TW = Teamwork/Leadership
Sk = Practical Skill	PS = Problem Solving	COM = Communications

Introduction to Phases 3, 5 & 7

Purpose	The purpose of the on-the-job Phases 3, 5 and 7 of apprenticeship training and development programmes is to provide all apprentices with the opportunity to practise the skills acquired in the off-the-job Phases 2, 4 and 6 and to develop new skills and competences. It is the main function of the on-the-job phases to transfer off-the-job skill acquisition into workplace competence. This requires effective integration of knowledge, practical and personal skills in the workplace.
Content	During each phase the apprentice needs to practise in the workplace environment the newly learned skills to the required standards of accuracy, speed and quality, and with the confidence which characterises competence. These skills are stated in the module objectives for each off-the-job phase and are further specified in detail in the competencies provided for each workplace assessment within this document. The apprentice works with experienced craftspersons and is supervised in the practice and acquisition of the skills.
Assessment	<p>Workplace Competence Assessment is carried out during the on-the-job Phases. Assessment in the workplace provides evidence of competence. Workplace competence is defined as the application of skills, knowledge and competence to perform tasks or combinations of tasks to industrial and commercial standards under operational conditions. Assessment schedules detailing requirements for each of Phases 3, 5 and 7 are provided in this document. A checklist of assessment points for each assessment is also included.</p> <p>As part of the continuous learning process completion of the relevant section of the portfolio is required. Assessment checklists must be retained by the employer for the duration of the apprenticeship period.</p>

Common Modules:

The apprentice is required to complete a number of self-paced Common Modules during their training period.

During their apprenticeship the apprentice will undertake self-study in the following:.

During their apprenticeship the apprentice will undertake self-study in the following:

- Health and Safety
- Introduction to Learning to Learn
- Introduction to ICT
- Employment Legislation Awareness
- Environmental Awareness
- Communication
- Team Working

The apprentice must have completed these Induction Units prior to the commencement of Phase 4.

Introduction to Phases 3, 5 and 7

Documenting Assessment of Workplace Competence

To assist assessors to plan and conduct assessment in a range of practical tasks, three documents are provided for each task:

1. Assessment Specification
2. Assessment Checklist
3. Assessor Feedback Sheet

Assessment Specification

The Assessment Specification contains the information under the following headings which describes the assessment in detail:

Activity	Project requiring cognitive, practical and personal skills
Conditions	Range statement (type of environment, tools, equipment, resources and any constraints)
Standards	Safety, accuracy, speed, finish and quality
Preparation	Assessor's role; location and timing of the assessment
Practical Skills	The practical skills to be assessed
Technical Knowledge	Science, maths, drawing and underpinning knowledge
Personal Skills	The personal skills to be assessed
Assessment Method	Observation during task performance, examination of work piece or finished product, oral questions.

Assessment Checklist

This contains the following:

1. List of assessment points.
2. Six columns to facilitate recording of assessment results for each task specified. To demonstrate workplace competence, the apprentice must achieve all assessment points on one occasion for any one task.
3. Apprentice and assessor sign-off and date columns when assessment is successfully completed, i.e. task has been achieved.

 Workplace Feedback

The feedback form provides the opportunity for workplace assessors to feed back any difficulties or suggestions for improvement in the workplace assessments carried out in Phases 1/3/5/7 of the Standards Based Apprenticeship.

Please complete the form which is available from the SOLAS Portal and return to:
Apprenticeship Feedback, SOLAS, Apprenticeship Services, Castleforbes House, Castleforbes Road, Dublin 1.

We welcome your observations:	ASSESSMENT NO.
1. Please specify any craft skills important in your firm which are omitted from the Assessment Schedules in 1/3/5/7.	
2. Indicate any instance where instructions are unclear.	
3. Indicate if any assessment points are unclear.	
4. State if competencies are unclear in any assessment.	
5. Please describe any other difficulties or suggestions here regarding Workplace Assessment.	
6. Do assessment criteria meet industrial standards for this phase? If NO, please specify the instance.	

Name: _____

Phone: _____ Mobile: _____

Address: _____

For further information please contact:

**SOLAS,
Apprenticeship and Work Based Learning,
Castleforbes House,
Castleforbes Road,
Dublin 1.**

Tel: +353 1 533 2500

e-mail: info@solas.ie

Web: <http://www.solas.ie>

Carpentry & Joinery

Curriculum

Phase 1

ASSESSMENT PROGRAMME ON-THE-JOB

ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

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SOLAS

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Apprenticeship Information

Safepass

In addition to the Phase 1 training specified here, all apprentices working on construction sites must undergo the SOLAS 'Safepass' Training Programme. This provides health and safety awareness training for all workers in the construction industry.

**SOLAS
Induction
Presentation**

After the registration process is complete, the employer is obliged to release the apprentice to attend an Apprenticeship Induction Presentation delivered by your local Education and Training Board (ETB). This Apprenticeship Induction Presentation outlines items, such as the structure of apprenticeship, the support structures in place for the apprentice, and the apprentices' responsibilities with regard to their own learning during their apprenticeship.

Disclaimer

Further to the training specified in this document, it is the responsibility of the employer, under employment legislation, to provide adequate health and safety training for all employees.

Module 1: Introduction to On-the-Job Training

During Phase 1 'On-the-Job training', the employer is required to deliver introductory training for the industry to the apprentice. The following units specify the training that is to be carried out during this period. They also include assignments to be carried out by the apprentice.

Phase 1 'On-the-Job training' is divided into the following units:**Unit 1 Induction Training**

This specifies the relevant induction training relating to the apprentice's duties and responsibilities within the company. The employer will deliver this training to the apprentice as they start their employment in the industry. On completion of this unit there is a list of tasks which must be checked off and signed by the assessor and the apprentice when the apprentice has completed them successfully.

Unit 2 Introduction to Health & Safety Training

This specifies the health and safety training that will be delivered to the apprentice. It also contains a list of tasks to be checked off and signed by the assessor and the apprentice when the apprentice has completed them successfully.

Unit 3 Introduction to Tools & Equipment

This introduces the apprentice to the tools and equipment of the workplace. It includes an assignment to be completed by the apprentice.

Unit 4 Introduction to Basic Skills

This is designed to introduce the apprentice to the skills of the craft by ensuring the apprentice is able to carry out a number of basic tasks. When the apprentice has demonstrated that they can carry out these tasks, the supplied checklist must be signed off by the assessor and the apprentice.

Phase 1 On-the-Job Record of Training Checklist

This record sheet records the training completed by the apprentice during the Phase 1 On-the-Job period. The completed sheet must be signed by the assessor and forwarded to the appropriate regional Education and Training Board (ETB). This is a mandatory requirement and must be completed in order for the apprentice to be allowed to progress to the Phase 2 Off-the-Job training.

The assessor will record the completion of each unit of Phase1 On-the-Job training in the table below.

Phase 1 On-the-Job Training

Unit 1	Induction Training completed	Yes	<input type="checkbox"/>
Unit 2	Introduction to Health & Safety completed	Yes	<input type="checkbox"/>
Unit 3	Introduction to Tools & Equipment completed	Yes	<input type="checkbox"/>
Unit 4	Introduction to Basic Skills completed	Yes	<input type="checkbox"/>

Assessor/Verifier to sign off when the number of Assessments required is successfully completed

Apprentice's Name _____
(BLOCK CAPITALS)

(Signature) _____

App. Reg. No _____ App. PPS No. _____

Assessor/Verifier _____
(BLOCK CAPITALS)

(Signature) _____

Company _____ Date: ____/____/____

Address: _____



Unit 1: Induction Training**Induction Training Specification**

Objective	At the end of this unit the apprentice will be able to: <ul style="list-style-type: none">• Explain their duties and responsibilities within the company• List the company rules and regulations applicable to the apprentice• Describe the layout and facilities of the workplace
Key Points	<ul style="list-style-type: none">• Duties of the apprentice within the company in general• Carrying out the instructions of the workplace assessor• Representing the company in the proper manner• How the apprentice's standard of performance is measured• Company rules and staff regulations, e.g. grievance/disciplinary procedures• Administration procedures, e.g. timekeeping, absence reporting• How the apprentice will be paid and taxed• Restriction on smoking in the workplace• Workplace layout and facilities, e.g. emergency exits, first aid station, canteen
Training Aids	<ul style="list-style-type: none">• Relevant company information• Company handbook (if applicable)
Assignment	<ul style="list-style-type: none">• The next page contains a checklist of induction tasks that the apprentice must carry out under guidance from their assessor

Module 1: Introduction to On-the-Job Training

Unit 1: Induction Training

The following checklist identifies the tasks to be carried out by the apprentice during the induction training period. Each task on this list should be checked off when the assessor is satisfied that the apprentice has completed them successfully.

The Company

1. The apprentice can state their duties and responsibilities within the company
2. The apprentice can outline the products or services provided by the company
3. The apprentice can identify who they report to within the company
4. The apprentice can locate emergency exits and assembly points
5. The apprentice can broadly describe the rules and regulations of the company and knows where to locate them.

The Job

6. The apprentice can describe the standard of performance expected from them
7. The apprentice can describe the job skills they need to develop to work effectively
8. The apprentice can explain how they are paid and how tax is calculated on that pay
9. The apprentice can state the timekeeping arrangements in place within the company
10. The apprentice can explain the procedures for reporting their absence from work
11. The apprentice can outline the grievance/disciplinary procedures within the company

Module 1: Introduction to On-the-Job Training

Unit 1: Induction Training

Assessor/Verifier to sign off when the number of Assessments required is successfully completed

Apprentice's Name _____
(BLOCK CAPITALS)

(Signature) _____

App. Reg. No _____ App. PPS No. _____

Assessor/Verifier _____
(BLOCK CAPITALS)

(Signature) _____

**All assessment documentation must be retained by the employer
for the duration of the apprenticeship period.**

Module 1: Introduction to On-the-Job Training

Unit 2: Introduction to Health and Safety

Objective	<p>At the end of this unit, the apprentice will be able to:</p> <ul style="list-style-type: none">• Demonstrate proper care taken in the workplace with regards to health and safety• Use relevant items of equipment in a safe and proper manner• Take suitable precautions when working with heavy loads, electricity and other hazards• Demonstrate proper care when working at heights• Identify and correctly use the appropriate equipment when working at heights• Provide evidence of completing the 'Safepass' training (if applicable to the craft)
Key Points	<ul style="list-style-type: none">• Possible causes of accidents in the workplace and methods of prevention• The role of a company's Safety Statement• Causes of dermatitis and methods of prevention• Basic first aid procedures• Correct use of fire fighting equipment, e.g. fire blankets, fire extinguishers• Procedures for notification of accidents and dangerous occurrences• Correct use and storage of personal protective equipment, e.g. helmets, gloves, eye protection• Correct procedures for use of machinery and power tools• Correct handling of a load both manually and using a handling aid• Working safely around electricity: low and high voltage equipment, power lines• Safe exposure levels to noise• Procedures for working securely at heights, e.g. roof tops, ladders, scaffolds, elevated platforms• Dangers from falling materials and how to avoid them• Relevance and purpose of 'Safepass' training (if applicable to the craft)
Training Aids	<ul style="list-style-type: none">• 'A Guide to Industrial Safety and Hygiene' booklet• The SOLAS booklet on Noise
Assignment	<p>The next page contains a checklist of health and safety tasks that the apprentice must carry out under guidance from their assessor</p>

Module 1: Introduction to On-the-Job Training

Unit 2: Introduction to Health and Safety

The following checklist identifies the tasks to be carried out by the apprentice during the health and safety training period. Each task on this list should be checked off when the assessor is satisfied that the apprentice is able to carry them out successfully

1. The apprentice can explain the correct procedures for notification of accidents and dangerous occurrences in the workplace
2. The apprentice can locate the company's safety statement and can explain its importance
3. The apprentice can locate first aid facilities on site and can demonstrate a basic knowledge of first aid procedures
4. The apprentice can state the correct procedures to take in the event of a fire and can locate fire fighting equipment
5. The apprentice can operate relevant items of work place equipment safely within defined parameters
6. The apprentice can use the appropriate personal protective equipment when required in the workplace and is able to store them in the proper manner after use
7. The apprentice can demonstrate correct procedures for lifting heavy loads both manually and using a lifting device
8. The apprentice can take the proper precautions when working around electricity and electrical equipment
9. The apprentice can take the proper precautions when working at heights
10. The apprentice can demonstrate the correct use of the relevant equipment when working at heights, e.g. ladders, scaffolds, roof rails, elevated platforms
11. The apprentice has completed the 'Safepass' course (if applicable to the craft)
12. The apprentice has completed the 'Test Yourself' questionnaire in the 'Guide to Industrial Safety & Hygiene' booklet

Module 1: Introduction to On-the-Job Training

Unit 2: Introduction to Health and Safety

Assessor/Verifier to sign off when the number of Assessments required is successfully completed

Apprentice's Name _____
(BLOCK CAPITALS)

(Signature) _____

App. Reg. No. _____ App. PPS No. _____

Assessor/Verifier _____
(BLOCK CAPITALS)

(Signature) _____

**All assessment documentation must be retained by the employer
for the duration of the apprenticeship period.**

Unit 3: Introduction to Tools and Equipment

- Objective** At the end of this unit the apprentice will be able to:
- Identify the major pieces of plant and equipment used in the workplace and state their functions
 - Identify the typical hand tools and portable equipment used by the craftsperson in the workplace and state their functions
 - State the hazards associated with tools and equipment
- Key Points**
- Correct names of tools and equipment
 - Correct use of each tool and piece of equipment
 - Importance of referring to the Operational Hazard Statement before using a particular tool or piece of equipment
- Training Aids**
- Typical workplace tools and equipment provided by the employer
- Assignment** The following table should be completed by the apprentice identifying the missing descriptions, functions and hazards of the equipment and hand tools for the craft. This assignment is designed to support the apprentice's learning.

Module 1: Introduction to On-the-Job Training

Unit 3: Introduction to Tools and Equipment

Listed in the table below are the names of typical workplace tools and equipment. The apprentice is required to correctly identify the missing description, function and hazard(s), and enter them in the table under the appropriate headings:

The first item completed as an Example

Name	Description	Function	Operational Hazard
Concrete mixer	There are four types of concrete mixer: tilting drum, non-tilting drum, reversing drum and pan	Mixes cement, water and either sand or gravel to make concrete	Moving parts (shifts, cogs, belts and chains can be dangerous to limbs)
Bench plane			
Hand saw			
Wood chisel			
Carpenter's hammer			
Portable power drill			

Module 1: Introduction to On-the-Job Training

Unit 3: Introduction to Tools and Equipment

Name	Description	Function	Operational Hazard
Portable power saw			
Morticer			
Workbench			
Setting out board			
Air tool stations			

Assessor/Verifier to sign off when the number of Assessments required is successfully completed

Apprentice's Name _____
 (BLOCK CAPITALS)

(Signature) _____

App. Reg. No _____ App. PPS No. _____

Assessor/Verifier _____
 (BLOCK CAPITALS)

(Signature) _____

All assessment documentation must be retained by the employer for the duration of the apprenticeship period.

Module 1: Introduction to On-the-Job Training

Unit 4: Introduction to Basic Skills

Objective	At the end of this unit the apprentice will be able to: <ul style="list-style-type: none">• Demonstrate the ability to carry out a predetermined list of elementary tasks, relevant to the craft, under supervision from a qualified craftsperson
Key Points	<ul style="list-style-type: none">• Correct procedures for carrying out each task• Proper use of tools and equipment• Quality of work to be achieved
Training Aids	<ul style="list-style-type: none">• Relevant tools and equipment for carrying out the tasks listed• Checklist of tasks to be carried out
Assessment	The apprentice is required to complete the tasks listed on the next page. Once successfully completed, each task is to be checked off by the assessor and then signed off by both the assessor and apprentice

Module 1: Introduction to On-the-Job Training

Unit 4: Introduction to Basic Skills

The apprentice will demonstrate to the assessor that they can carry out the following tasks. The assessor/verifier will check off each task when the apprentice completes it successfully. The completed checklist will then be signed off by both the supervisor/ assessor and apprentice.

Site:

1. Identify the location of the electrical sockets supplying the various voltage systems and state the need for the use of a transformer
2. Use safe practices regarding eye and ear protection when working in the vicinity of abrasive or noisy power tools
3. Construct a Builder's Square 300mm x 400mm x 1000mm out of 100mm x 20mm boards
4. Demonstrate the correct procedure used when lifting objects by hand

Joinery Shop:

5. Identify the location of fire escape and fire extinguishers in the workshop
6. Use safe practices regarding loose clothing when working near moving parts of machines
7. Demonstrate the safe removal of timber from saws, planes, sanders, etc.
8. Demonstrate the correct procedure used when stacking planks, sheet material, doors, windows and other joinery items
9. Remove excess glue cleanly from joinery items
10. Demonstrate the proper method of using a sash cramp and G cramp
11. Make a timber straight edge for use with a spirit level 1500mm x 100mm x 25mm

Unit 4: Introduction to Basic Skills

Assessor/Verifier to sign off when the number of Assessments required is successfully completed

Apprentice's Name _____
(BLOCK CAPITALS)

(Signature) _____

App. Reg. No _____ App. PPS No. _____

Assessor/Verifier _____
(BLOCK CAPITALS)

(Signature) _____

**All assessment documentation must be retained by the employer
for the duration of the apprenticeship period.**

Carpentry & Joinery

Curriculum

Phase 3

Assessment Programme
On-the-Job



ACKNOWLEDGEMENT

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 On-the Job Assessment Schedule

Each apprentice is required to pass 3 skills demonstrations from Assessments 1–6 and 3 skills demonstrations from Assessments 7–12 before undertaking Phase 5.

The assessor is to assess and mark each skills demonstration in line with the specification and the marking and grading criteria:

Assessors' Names: _____

(BLOCK CAPITALS) _____

Assessment Schedule	Date
1. Formwork	___/___/___
2. Linings	___/___/___
3. Cut Pitched Roof	___/___/___
4. Fitting of Door Frames	___/___/___
5. Floor Joists	___/___/___
6. Construction of Non Load-bearing Partitions	___/___/___
7. Jointing Handrail	___/___/___
8. Stair Manufacture	___/___/___
9. Window Construction	___/___/___
10. Door Construction	___/___/___
11. Timber Trimmings	___/___/___
12. Hanging Door	___/___/___

On-the-Job Skills Schedule

I certify the above activities were performed by me to the standard indicated:

Apprentice's Name _____
(BLOCK CAPITALS)

Apprentice's Signature _____ Date ___/___/___

App. Reg. No. _____ App. PPS No. _____

The company Assessor/Verifier must sign-off the number of assessments completed and verify the activities and standards are authentic by assessing the apprentice on the tasks.

Apprentice's Start Date: Phase 3 ___/___/___ Finish Date: Phase 3 ___/___/___

(The minimum period of employment for on-the-job training for this phase is 6 months and assessments must be completed during this period)

I, the company Assessor/Verifier, certify that the apprentice named above has achieved the standard as specified for this phase; and that all SOLAS assessment regulations have been adhered to during these assessment events.

Assessor/Verifier _____
(BLOCK CAPITALS)

(Signature) _____

Company _____ Date: ___/___/___

Address: _____

Your local Education and Training Board (ETB) Office: _____ :



Apprentice's Instructions

General Instructions:

1. Read the following carefully and make sure you understand all instructions. If you need clarification, check with the Supervisor/Assessor before the test begins.
2. Write your Apprentice Name/Registration No. on all answer sheets and test work.
3. Check that you have all the necessary materials before the test begins.
4. You must complete this test without assistance. Apprentice(s) assisting other apprentice(s) or interfering with their work will be disqualified from the test.
5. All test papers remain the property of SOLAS and the Department of Education and Skills, and must be returned to the Supervisor/Assessor immediately on completion of the test.
6. A recording device such as a mobile phone or camera may be used to gather evidence for Portfolio submission where appropriate and permitted by the Supervisor/Assessor.

Supervisor's/Assessor's Instructions

General Instructions:

1. The Apprentice Name/Registration No. must be entered on all answer sheets and test work.
2. Before the test begins, read instructions aloud and allow time for the apprentice(s) to check instructions with you. Avoid instructing the apprentice(s) during the test, i.e. confine yourself to clarification of instructions.
3. When each apprentice is ready and you have checked that they have all the necessary materials, announce commencement of test and confirm finishing time.
4. The apprentice(s) must carry out the test without assistance. Apprentice(s) assisting other apprentice(s) or interfering with their work must be disqualified from the test.
5. The use of apprentice(s) notes of any description is not allowed during the test.
6. If the test is to be assessed as the apprentice(s) proceeds, ensure you are in a position to observe the apprentice(s).
7. Apprentice(s) must cease all work when the time for the test expires.
8. If apprentice(s) engage in unsafe practice, the test must be stopped immediately.
9. You should ensure that all test papers and test work are returned immediately on completion of the test.
10. Security of test documentation and confidentiality of test results to be maintained at all times.
11. Learners may be permitted to use a recording device such as a mobile phone or camera to gather evidence for Portfolio submission where appropriate and safe to do so.

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 1
Formwork



Assessment 1: Formwork

Specifications**Activity Description:**

- Set out, mark out, construct and erect a column box
- Mark out, construct and erect formwork for concrete coping to a wall or column

Conditions:

- Using hand and power tools, rough white deal timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Marked out, manufactured and erected correctly
2. Formwork square
3. Formwork plumb/level
4. Formwork in line
5. Formwork securely braced
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Mounting clamping system securely
- Measuring
- Cutting
- Fixing
- Levelling and lining in

Technical Knowledge:

- Drawing symbols/notations
- Safety procedures
- Measurement
- Maths
- Fixing procedures

Assessment 1: Formwork

Specifications**Personal Skills:**

- Estimating the time and material required to complete a project
- Selecting, using, storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Planning and sequencing operations to complete a project efficiently
- Working safely within an agreed time scale
- Identifying defects in own work

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 1: Formwork

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 1: Formwork

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Marked out, manufactured and erected correctly ±2mm							
2. Formwork square							
3. Formwork plumb/level							
4. Formwork in line							
5. Formwork securely braced							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 1: Formwork

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:
(BLOCK CAPITALS): _____

Assessor's Name:
(BLOCK CAPITALS): _____

Assessment Location:
(BLOCK CAPITALS): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Formwork' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's
(Signature): _____ Date: _____

Assessor's
(Signature): _____ Date: _____

Internal Verifier's
Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 2

Linings



Assessment 2: Linings

Specifications**Activity Description:**

- Fit and fix linings to an opening, also include slips or stops

Conditions:

- Using hand and power tools, timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Lining marked out and cut accurately
2. Lining fixed securely
3. Slips/stops scribed accurately
4. Slips/stops fixed accurately
5. All nails punched below surface
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Cutting and fixing
- Squaring
- Ranging

Technical Knowledge:

- Safety procedures
- Measurements
- Maths
- Fixing procedures
- Read and interpret drawings
- Angles

Assessment 2: Linings

Specifications**Personal Skills:**

- Planning and sequencing operations to complete a work project efficiently
- Working safely within an agreed time scale
- Using, handling and storing tools and equipment/material appropriately
- Interacting effectively with colleagues when working in a team
- Identifying defects in own work
- Identifying hazards

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 2: Linings

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 2: Linings

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Lining marked out and cut accurately							
2. Lining fixed securely							
3. Slips/stops scribed accurately							
4. Slips/stops fixed accurately							
5. All nails punched below surface							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 2: Linings

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(BLOCK CAPITALS): _____

Assessor's Name:

(BLOCK CAPITALS): _____

Assessment Location:

(BLOCK CAPITALS): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Linings' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 3
Cut Pitched Roof



Assessment 3: Cut Pitched Roof

Specifications**Activity Description:**

- Set out, mark out and cut all components required to produce a pitched timber cut roof, e.g. rafters, purlins struts, hangers and collar ties

Conditions:

- Using hand and power tools, rough timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Components set out correctly
2. Components cut to correct length
3. Rafter and seat cuts cut accurately
4. Components fixed securely
5. Top of rafters in line
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Cutting rafters
- Fixing rafters

Technical Knowledge:

- Drawing interpretation - drawing symbols
- Work planning
- Types of tools
- Measurements
- Safety procedures
- Pitches
- Angles
- Maths

Assessment 3: Cut Pitched Roof

Specifications**Personal Skills:**

- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Listing, selecting and ordering materials needed to complete a project
- Planning and sequencing operations to complete a project efficiently

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 3: Cut Pitched Roof

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 3: Cut Pitched Roof

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Components set out correctly ±2mm							
2. Components cut to correct length ±2mm							
3. Rafter and seat cuts cut accurately							
4. Components fixed securely							
5. Top of rafters in line							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 3: Cut Pitched Roof

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Cut Pitched Roof' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's
(Signature): _____ Date: _____

Assessor's
(Signature): _____ Date: _____

Internal Verifier's
Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 4
Fitting of Door Frames



Assessment 4: Fitting of Door Frames

Specifications**Activity Description:**

- Fit and fix a rebated door frame in a given opening

Conditions:

- Using hand and power tools, timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Fitted in correct position
2. Fixed securely
3. Head level
4. Jambs plumb and parallel
5. Free from twist and in line
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Selecting appropriate fixings
- Levelling and ranging

Technical Knowledge:

- Levelling
- Squaring
- Ranging
- Interpreting a drawing
- Types of fixing procedures
- Maths
- Measurements

Assessment 4: Fitting of Door Frames

Specifications**Personal Skills:**

- Planning and sequencing operations to complete a work project efficiently
- Identifying defects in own work
- Interpreting verbal instructions
- Interacting effectively with colleagues when working in a team
- Identifying hazards
- Selecting tools and materials to complete a project

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 4: Fitting of Door Frames

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 4: Fitting of Door Frames

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
7. Fitted in correct position							
8. Fixed securely							
9. Head level							
10. Jambs plumb and parallel							
11. Free from twist and in line							
12. Learner autonomy							
13. Time efficiency							
14. Use of tools and materials							
15. Staging/organising							
16. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 4: Fitting of Door Frames

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Fitting of Door Frames' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 5
Floor Joists



Assessment 5: Floor Joists

Specifications**Activity Description:**

- Cut, lay, level, bridge and fix floor joists

Conditions:

- Using hand and power tools, drawing, fixings and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Joists spaced correctly
2. Joists level
3. Joists secured correctly
4. Bridging cut correctly
5. Bridging fixed securely
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Measuring and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Levelling
- Fixing
- Spacing

Technical Knowledge:

- Reading and interpreting drawings - drawing symbols/notations
- Measurements
- Safety procedures
- Maths - addition, subtraction, multiplication and division

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Interacting effectively with colleagues when working in a team
- Selecting tools and material to complete a project
- Working safely within an agreed time scale

Assessment 5: Floor Joists

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 5: Floor Joists

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 5: Floor Joists

Marking Scheme

Time Allowed: ____:____

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Joists spaced correctly ±2mm							
2. Joists level							
3. Joists secured correctly							
4. Bridging cut correctly							
5. Bridging fixed securely							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 5: Floor Joists

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Floor Joists' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's Signature

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (If sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 6

Construction of Non Load-bearing Partition



Assessment 6: Construction of Non Load-bearing Partition

Specifications**Activity Description:**

- Set out, mark out and construct a non load-bearing stud partition

Conditions:

- Using a drawing, rough white deal timber, fixings, hand and power tools, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Set out, cut and constructed correctly
2. Partition plumb
3. Free from twist
4. Securely fixed
5. Noggins cut correctly and fixed securely
6. Safe practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Reading and interpreting drawings
- Selecting appropriate lengths to avoid waste
- Using hand and power tools
- Selecting appropriate fixings
- Measuring and marking out
- Ranging and lining

Technical Knowledge:

- Reading and interpreting drawings
- Measurements
- Safety procedures
- Drawing symbols, notations
- Fixing procedures
- Multiplication, addition, subtraction and division

Assessment 6: Construction of Non Load-bearing Partition

Specifications**Personal Skills:**

- Planning and sequencing operations to complete a work project efficiently
- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting verbal instructions
- Listing and selecting materials
- Working safely within an agreed time scale

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

 Assessment 6: Construction of Non Load-bearing Partition

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 6: Construction of Non Load-bearing Partition

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Set out, cut and constructed correctly							
2. Partition plumb							
3. Free from twist							
4. Securely fixed							
5. Noggins cut correctly and fixed securely							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 6: Construction of Non Load-bearing Partition

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Construction of Non Load-bearing Partition' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's
(Signature): _____ Date: _____

Assessor's
(Signature): _____ Date: _____

Internal Verifier's
Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 7
Joint Handrail



Assessment 7: Jointing Handrail

Specifications**Activity Description:**

- Fit and fix handrail to a balustrade or landing

Conditions:

- Using hand and power tools, handrail bolts, dowels, drawings, handrail, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Handrail joint straight
2. Handrail free from twist
3. Handrail securely fixed
4. Handrail height conforms to technical guidance documents
5. Jointing handrail securely braced
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Reading and interpreting drawings
- Measuring and marking out
- Drilling
- Cutting
- Jointing
- Sanding

Technical Knowledge:

- Drawing interpretation - drawing symbols/notations
- Safety procedures
- Timber characteristics
- Measurements
- Maths
- Grades of sandpaper

Assessment 7: Jointing Handrail

Specifications**Personal Skills:**

- Identifying hazards
- Interpreting verbal instructions
- Working safely within an agreed timescale
- Identifying defects in own work
- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interacting effectively with colleagues when working in a team

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately. All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.

Assessment 7: Jointing Handrail

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 7: Jointing Handrail

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Handrail joint straight							
2. Handrail free from twist							
3. Handrail securely fixed							
4. Handrail height conforms to technical guidance documents							
5. Jointing handrail securely braced							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 7: Jointing Handrail

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Jointing Handrail' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 8
Stair Manufacture



Assessment 8: Stair Manufacture

Specifications**Activity Description:**

- Mark out and construct a flight of stairs containing a minimum of three risers

Conditions:

- Using hand/power tools, woodworking machinery, timber, drawing, setting out rod, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Stair set out and constructed correctly
2. Going and rise correct
3. Free from twist
4. Joints fitted correctly
5. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Reading and interpreting drawings
- Using hand and power tools
- Using woodworking machines
- Measuring and marking out
- Gluing and cramping

Technical Knowledge:

- Drawing symbols/notations
- Measurements
- Maths
- Building Regulation Procedures
- Safety procedures

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Identifying hazards
- Identifying defects in own work
- Estimating the time and materials required to complete a project

Assessment 8: Stair Manufacture

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 8: Stair Manufacture

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 8: Stair Manufacture

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Stairs set out and constructed correctly ±2mm							
2. Going and rise correct ±2mm							
3. Free from twist							
4. Joints fitted correctly							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 8: Stair Manufacture

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Stair Manufacture' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 9
Window Construction



Assessment 9: Window Construction

Specifications**Activity Description:**

- Mark out and construct one of the following windows: casement, up and down, pivot or bay window

Conditions:

- Using hand and power tools, woodworking machinery, drawing, setting out rod, timber, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Window set out and constructed correctly $\pm 2\text{mm}$
2. Window square
3. Free from twist
4. Joints fitted tight
5. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Reading and interpreting drawings
- Using hand and power tools
- Using woodworking machines
- Measuring and marking out
- Gluing and cramping

Technical Knowledge:

- Drawing symbols/notations
- Measurements
- Angles
- Maths
- Machine safety procedures

Personal Skills:

- Working safely within an agreed time scale
- Estimating the time and materials required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic and verbal instructions

Assessment 9: Window Construction

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 9: Window Construction

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 9: Window Construction

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Window set out and constructed correctly $\pm 2\text{mm}$							
2. Window square							
3. Free from twist							
4. Joints fitted tight							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 9: Window Construction

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Window Construction' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 10
Door Construction



Assessment 10: Door Construction

Specifications**Activity Description:**

- Mark out and construct one of the following doors: flush door, framed braced and sheeted door, panelled door

Conditions:

- Using hand/power tools, woodworking machinery, drawing, setting out rod, timber, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Door set out and constructed correctly $\pm 2\text{mm}$
2. Door square
3. Free from twist
4. Joints fitted tight
5. Safety practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Gluing and cramping up
- Using woodworking machinery

Technical Knowledge:

- Cramping procedures
- Measurements
- Glue types
- Drawing symbols/notations
- Gluing procedures
- Safety procedures

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Selecting tools and materials to complete a project
- Working safely within an agreed time scale
- Identifying hazards

Assessment 10: Door Construction

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 10: Door Construction

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 10: Door Construction

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Door set out and constructed correctly $\pm 2\text{mm}$							
2. Door square							
3. Free from twist							
4. Joints fitted tight							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 10: Door Construction

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Door Construction' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 11

Timber Trimmings



Assessment 11: Timber Trimmings

Specifications**Activity Description:**

- Cut, fit, mitre, scribe and joint timber trimmings to a given work project, e.g. skirting

Conditions:

- Given a drawing, fixing, hand and power tools, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Marked out and cut correctly
2. Securely fixed
3. Mitres/scribes tight
4. Hails punched
5. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Measuring and marking out
- Jointing
- Using hand/power tools
- Mitring
- Reading and interpreting drawings
- Fixing
- Scribing

Technical Knowledge:

- Measurements
- Interpretation of drawings - drawing notations/symbols
- Safety procedures
- Angles
- Maths

Personal Skills:

- Listing and selecting materials needed to complete a project
- Estimating the time and material required to complete a project
- Planning and sequencing operations to complete a work project efficiently
- Working safely within an agreed time scale
- Identifying defects in own work

Assessment 11: Timber Trimmings

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 11: Timber Trimmings

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

--

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 11: Timber Trimmings

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Marked out and cut correctly ±1mm							
2. Securely fixed							
3. Mitres/scribes tight							
4. Hails punched							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 11: Timber Trimmings

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Timber Trimmings' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 3 Assessment Programme

Competency Assessment 12

Hanging Door



Assessment 12: Hanging Door

Specifications**Activity Description:**

- Fit and hang a standard door to be fitted with a mortice lock and required furniture

Conditions:

- Using hand and power tools, rough timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Door fitted correctly even margin local specification
2. Position of hinges correct
3. Hinges fitted correctly
4. Door not hinge-bound
5. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools

Technical Knowledge:

- Drawing interpretation - drawing symbols
- Work planning
- Types of tools
- Measurements
- Safety procedures
- Maths

Personal Skills:

- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Listing, selecting and ordering materials needed to complete a project
- Planning and sequencing operations to complete a project efficiently

Assessment 12: Hanging Door

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 12: Hanging Door

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 12: Hanging Door

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1.	Door fitted correctly even margin local specification						
2.	Position of hinges correct ±2mm						
3.	Hinges fitted correctly						
4.	Door not hinge bound						
5.	Learner autonomy						
6.	Time efficiency						
7.	Use of tools and materials						
8.	Staging/organising						
9.	Quality of finished product/process						
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 12: Hanging Door

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Hanging Door' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5

Assessment Programme
On-the-Job



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS (An tSeirbhís Oideachais Leanúnaigh agus Scileanna) acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

Revision: 5.2

SOLAS
Castleforbes House,
Castleforbes Road,
Dublin 1.

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Published by SOLAS – Further Education and Training Authority

On-the Job Assessment Schedule

Each apprentice is required to pass 4 skills demonstrations, a minimum of 1 skills demonstration from assessments 1-5 and a minimum of 1 skills demonstration from assessments 6-9.

The assessor is to assess and mark each skills demonstration in line with the specification and the marking and grading criteria:

Assessors' Names: _____

(BLOCK CAPITALS) _____

Assessment Schedule	Date
1. Fitted Furniture	___/___/___
2. Hip/Valley Roof	___/___/___
3. Concrete Stairs	___/___/___
4. Connecting Roofs	___/___/___
5. Rebated Doors	___/___/___
6. Half Turn Stairs	___/___/___
7. Louvres	___/___/___
8. Curved Joinery	___/___/___
9. Ramps, Knees and Easings	___/___/___

On-the-Job Skills Schedule

I certify the above activities were performed by me to the standard indicated:

Apprentice's Name _____
(BLOCK LETTERS)

Apprentice's Signature _____ Date ___/___/___

App. Reg. No. _____ App. PPS No. _____

The company Assessor/Verifier must sign-off the number of assessments completed and verify the activities and standards are authentic by assessing the apprentice on the tasks.

Apprentice's Start Date: Phase 5 ___/___/___ Finish Date: Phase 5 ___/___/___

(The minimum period of employment for on-the-job training for this phase is 6 months and assessments must be completed during this period)

I, the company Assessor/Verifier, certify that the apprentice named above has achieved the standard as specified for this phase; and that all SOLAS assessment regulations have been adhered to during these assessment events.

Assessor/Verifier _____
(BLOCK CAPITALS)

(Signature) _____

Company _____ Date: ___/___/___

Address: _____

Your local Education and
Training Board (ETB) Office: _____ :



Apprentice's Instructions

General Instructions:

1. Read the following carefully and make sure you understand all instructions. If you need clarification, check with the Supervisor/Assessor before the test begins.
2. Write your Apprentice Name/Registration No. on all answer sheets and test work.
3. Check that you have all the necessary materials before the test begins.
4. You must complete this test without assistance. Apprentice(s) assisting other apprentice(s) or interfering with their work will be disqualified from the test.
5. All test papers remain the property of SOLAS and the Department of Education and Skills, and must be returned to the Supervisor/Assessor immediately on completion of the test.
6. A recording device such as a mobile phone or camera may be used to gather evidence for Portfolio submission where appropriate and permitted by the Supervisor/Assessor.

Supervisor's/Assessor's Instructions

General Instructions:

1. The Apprentice Name/Registration No. must be entered on all answer sheets and test work.
2. Before the test begins, read instructions aloud and allow time for the apprentice(s) to check instructions with you. Avoid instructing the apprentice(s) during the test, i.e. confine yourself to clarification of instructions.
3. When each apprentice is ready and you have checked that they have all the necessary materials, announce commencement of test and confirm finishing time.
4. The apprentice(s) must carry out the test without assistance. Apprentice(s) assisting other apprentice(s) or interfering with their work must be disqualified from the test.
5. The use of apprentice(s) notes of any description is not allowed during the test.
6. If the test is to be assessed as the apprentice(s) proceeds, ensure you are in a position to observe the apprentice(s).
7. Apprentice(s) must cease all work when the time for the test expires.
8. If apprentice(s) engage in unsafe practice, the test must be stopped immediately.
9. You should ensure that all test papers and test work are returned immediately on completion of the test.
10. Security of test documentation and confidentiality of test results to be maintained at all times.
11. Learners may be permitted to use a recording device such as a mobile phone or camera to gather evidence for Portfolio submission where appropriate and safe to do so.

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 1
Fitted Furniture



Assessment 1: Fitted Furniture

Specifications**Activity Description:**

- Plan, layout and fit fitted furniture in a domestic environment

Conditions:

- Using hand and power tools, rough white deal timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Layout as per drawing/instructions
2. Units fitted level and plumb
3. All trims and scribes correctly fitted
4. Doors fitted and operating correctly
5. Fittings and accessories fitted correctly
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Cutting
- Fixing

Technical Knowledge:

- Drawing symbols/notations
- Safety procedures
- Measurement
- Maths
- Fixing procedures

Assessment 1: Fitted Furniture

Specifications**Personal Skills:**

- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Planning and sequencing operations to complete a project efficiently
- Interpreting verbal instructions
- Listing and selecting tools and materials needed to complete a work project
- Working safely within an agreed timescale
- Identifying defects in own work

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Mapping:

Module Objectives Covered:	Standard Code:
(M4) 2.1	2nd Fixing LO2

Assessment 1: Fitted Furniture

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 1: Fitted Furniture

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Layout as per drawing/instructions							
2. Units fitted level and plumb							
3. All trims and scribes correctly fitted							
4. Doors fitted and operating correctly							
5. Fittings and accessories fitted correctly							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 1: Fitted Furniture

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:
(BLOCK CAPITALS): _____

Assessor's Name:
(BLOCK CAPITALS): _____

Assessment Location:
(BLOCK CAPITALS): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Fitted Furniture' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's
(Signature): _____ Date: _____

Assessor's
(Signature): _____ Date: _____

Internal Verifier's
Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 2

Hip/Valley Roof



Assessment 2: Hip/Valley Roof

Specifications**Activity Description:**

- Set out and cut the components required to construct a roof containing a hip or valley rafter

Conditions:

- Using hand and power tools, timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Rafters correct length
2. Plumb and seat cuts correctly
3. Hip/valley rafters correct length
4. Jack/cripple rafters correct length
5. Hip and jack rafters/valley and cripple rafters set out, cut and erected correctly
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Cutting and fixing

Technical Knowledge:

- Safety procedures
- Measurements
- Maths
- Drawings and symbols
- Fixing procedures
- Read and interpret drawings
- Angles

Assessment 2: Hip/Valley Roof

Specifications**Personal Skills:**

- Planning and sequencing operations to complete a work project efficiently
- Working safely within an agreed timescale
- Using, handling and storing tools and equipment/material appropriately
- Interacting effectively with colleagues when working in a team
- Identifying defects in own work
- Identifying hazards

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Mapping:

Module Objectives Covered:	Standard Code:
(M2) 1.1	Timber Roofs LO3, LO12

Assessment 2: Hip/Valley Roof

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 2: Hip/Valley Roof

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Rafters correct length							
2. Plumb and seat cuts correctly							
3. Hip/Valley rafters correct length							
4. Jack/cripple rafters correct length							
5. Hip and jack rafters/valley and cripple rafters set out, cut and erected correctly							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 2: Hip/Valley Roof

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Hip/Valley Roof' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 3
Concrete Stairs



Assessment 3: Concrete Stairs

Specifications**Activity Description:**

- Set out, mark out, manufacture and erect formwork for one flight of a concrete stairs

Conditions:

- Using hand and power tools, rough timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Set out correctly
2. Constructed correctly
3. Rise and going correct $\pm 2\text{mm}$
4. Steps level
5. Supported and braced securely
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Cutting
- Fixing

Technical Knowledge:

- Drawing interpretation - drawing symbols
- Work planning
- Types of tools
- Measurements
- Safety procedures
- Pitches
- Angles
- Maths

Assessment 3: Concrete Stairs

Specifications**Personal Skills:**

- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Listing, selecting and ordering materials needed to complete a project
- Planning and sequencing operations to complete a project efficiently

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Mapping:

Module Objectives Covered:	Standard Code:
(M4) 4.1	1st Fixing and Sitework LO14

Assessment 3: Concrete Stairs

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 3: Concrete Stairs

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Set out correctly							
2. Constructed correctly							
3. Rise and going correct ±2mm							
4. Steps level							
5. Supported and braced securely							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 3: Concrete Stairs

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Concrete Stairs' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 4
Connecting Roofs



Assessment 4: Connecting Roofs

Specifications**Activity Description:**

- Set out and cut the components required to construct a roof that connects to an existing roof

Conditions:

- Using hand and power tools, timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Plumb and seat cuts correct
2. Rafter lengths correct
3. Rafters securely fixed
4. Wallplates level
5. Existing roof weather-tight
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Selecting appropriate fixings
- Levelling and ranging

Technical Knowledge:

- Levelling
- Squaring
- Ranging
- Interpreting a drawing
- Types of fixings
- Types of fixing procedures
- Drawing symbols
- Maths
- Measurements

Assessment 4: Connecting Roofs

Specifications**Personal Skills:**

- Planning and sequencing operations to complete a work project efficiently
- Identifying defects in own work
- Interpreting verbal instructions
- Interacting effectively with colleagues when working in a team
- Identifying hazards
- Selecting tools and materials to complete a project

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately. All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.

Mapping:

Module Objectives Covered:	Standard Code:
(M2) 3.1	Timber Roofs LO3, LO8, LO12

Assessment 4: Connecting Roofs

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:
(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 4: Connecting Roofs

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Plumb and seat cuts correct							
2. Rafter lengths correct ±2mm							
3. Rafters securely fixed							
4. Wallplates level							
5. Existing roof weather tight							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 4: Connecting Roofs

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Connecting Roofs' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 5
Rebated Doors



Assessment 5: Rebated Doors

Specifications**Activity:**

- Fit and hang a pair of rebated doors

Conditions:

- Using hand and power tools, rough timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Doors fitted correctly 2-3mm margin
2. Doors set and in line
3. Rebates meeting flush
4. All furniture fitted correctly

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Cutting
- Fixing

Technical Knowledge:

- Drawing interpretation - drawing symbols
- Work planning
- Types of tools
- Measurements
- Safety procedures
- Maths

Personal Skills:

- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Listing, selecting and ordering materials needed to complete a project
- Planning and sequencing operations to complete a project efficiently

Assessment 5: Rebated Doors

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Mapping:

Module Objectives Covered:	Standard Code:
(M4) 5.1	2nd Fixing LO8, LO12

Assessment 5: Rebated Doors

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 5: Rebated Doors

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Doors fitted correctly 2-3mm margin							
2. Doors set and in line							
3. Rebates meeting flush							
4. All furniture fitted correctly							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 5: Rebated Doors

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment "title of assessment" was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 6
Half Turn Stairs



Assessment 6: Half Turn Stairs

Specifications**Activity Description:**

- Mark out and construct a half turn stairs (dog-leg) or a cut string stairs

Conditions:

- Using hand and power tools, handrail bolts, dowels, drawings, handrail, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Stairs set out and constructed correctly
2. Rise and going correct
3. Free from twist
4. Steps fitted correctly
5. Newels fitted correctly
6. Safe work practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Reading and interpreting drawings
- Measuring and marking out
- Drilling
- Cutting
- Jointing
- Sanding

Technical Knowledge:

- Drawing interpretation - drawing symbols/notations
- Safety procedures
- Timber characteristics
- Measurements
- Maths

Assessment 6: Half Turn Stairs

Specifications**Personal Skills:**

- Identifying hazards
- Interpreting verbal instructions
- Working safely within an agreed timescale
- Identifying defects in own work
- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interacting effectively with colleagues when working in a team

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately. All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.

Mapping:

Module Objectives Covered:	Standard Code:
(M3) 3.1	Joinery LO11

Assessment 6: Half Turn Stairs

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:
(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 6: Half Turn Stairs

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1.	Stairs set out and constructed correctly ±2mm						
2.	Rise and going correct ±2mm						
3.	Free from twist						
4.	Steps fitted correctly						
5.	Newels fitted correctly						
6.	Learner autonomy						
7.	Time efficiency						
8.	Use of tools and materials						
9.	Staging/organising						
10.	Quality of finished product/process						
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 6: Half Turn Stairs

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Half Turn Stairs' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 7

Louvres



Assessment 7: Louvres

Specifications**Activity Description:**

- Set out, mark out and manufacture or repair louvres in a timber component

Conditions:

- Using hand/power tools, woodworking machinery, timber, drawing, setting out rod, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Set out correctly
2. Correct angle applied to sill
3. Louvre trenches correct depth
4. Louvre blades correct length
5. Louvre blades hand tight
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Reading and interpreting drawings
- Using hand and power tools
- Using woodworking machines
- Measuring and marking out
- Gluing and cramping

Technical Knowledge:

- Drawing symbols/notations
- Measurements
- Maths
- Building Regulation Procedures
- Safety procedures

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Identifying hazards
- Identifying defects in own work
- Estimating the time and materials required to complete a project

Assessment 7: Louvres

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Mapping:

Module Objectives Covered:	Standard Code:
(M3) 5.1	Joinery LO12

Assessment 7: Louvres

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 7: Louvres

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Set out correctly ±2mm							
2. Correct angle applied to sill							
3. Louvre trenches correct depth							
4. Louvre blades correct length							
5. Louvre blades hand tight							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 7: Louvres

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Louvres' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 8

Curved Joinery



Assessment 8: Curved Joinery

Specifications**Activity Description:**

- Set out, mark out and manufacture a joinery component containing curved elements

Conditions:

- Using hand/power tools, woodworking machinery, timber, drawing, setting out rod, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Set out correctly
2. Curve outline correct
3. Free from twist
4. Overall dimensions correct
5. All joints closed
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Reading and interpreting drawings
- Using hand and power tools
- Using woodworking machines
- Measuring and marking out
- Gluing and cramping

Technical Knowledge:

- Drawing symbols/notations
- Measurements
- Angles
- Maths
- Machine safety procedures

Personal Skills:

- Working safely within an agreed time scale
- Estimating the time and materials required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic and verbal instructions

Assessment 8: Curved Joinery

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Mapping:

Module Objectives Covered:	Standard Code:
(M3) 4.1	Joinery LO14

Assessment 8: Curved Joinery

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 8: Curved Joinery

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Set out correctly ±2mm							
2. Curve outline correct							
3. Free from twist							
4. Overall dimensions correct							
5. All joints closed							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 8: Curved Joinery

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Curved Joinery' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 5 Assessment Programme

Competency Assessment 9

Ramps, Knees and Easings



Assessment 9: Ramps, Knees and Easings

Specifications**Activity Description:**

- Set out, mark out and manufacture a joinery component containing curved elements

Conditions:

- Using hand/power tools, woodworking machinery, drawing, setting out rod, timber, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Component set out correctly
2. Templates manufactured correctly
3. Component correct shape
4. Component manufactured correctly
5. Overall dimensions correct
6. Safety practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Gluing and cramping up
- Using woodworking machinery

Technical Knowledge:

- Cramping procedures
- Measurements
- Glue types
- Drawing symbols/notations
- Gluing procedures
- Safety Procedures

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Selecting tools and materials to complete a project
- Working safely within an agreed timescale
- Identifying hazards

Assessment 9: Ramps, Knees and Easings

Specifications**Assessment Methods:**

- Observation of work method
- Visual inspection of completed work

Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately. All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.

Mapping:

Module Objectives Covered:	Standard Code:
(M2) 1.1	2nd Fixing LO2

Assessment 9: Ramps, Knees and Easings

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:
(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 9: Ramps, Knees and Easings

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Component set out correctly ±2mm							
2. Templates manufactured correctly							
3. Component correct shape							
4. Component manufactured correctly							
5. Overall dimensions correct ±2mm							
6. Learner autonomy							
7. Time efficiency							
8. Use of tools and materials							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 9: Ramps, Knees and Easings

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Ramps, Knees and Easings' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7

Assessment Programme
On-the-Job



ACKNOWLEDGEMENT

The Apprenticeship Programme for this craft occupation is founded on the results of industry-based surveys and research into the skills, knowledge and competence required by today's craftspeople.

SOLAS (An tSeirbhís Oideachais Leanúnaigh agus Scileanna) acknowledges the support and participation of all the craftspeople, employer representatives, Institutes of Technology, SOLAS Curriculum Writers and worker representatives who contributed to the development of the curricula for this craft occupation.

Revision: 5.2

SOLAS
Castleforbes House,
Castleforbes Road,
Dublin 1.

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Published by SOLAS – Further Education and Training Authority

On-the Job Assessment Schedule

Each apprentice is required to pass 4 skills demonstrations, a minimum of 1 skills demonstration from assessments 1-5 and a minimum of 1 skills demonstration from assessments 6-9.

The assessor is to assess and mark each skills demonstration in line with the specification and the marking and grading criteria:

Assessors' Names: _____

(BLOCK LETTERS) _____

Assessment Schedule	Date
1. Building Setting Out	___/___/___
2. Panelling	___/___/___
3. Fire Door/Frame	___/___/___
4. Handrail Scroll	___/___/___
5. Oblique Plan Roof	___/___/___
6. Tapered Steps	___/___/___
7. Wreathed String	___/___/___
8. Curved Jig	___/___/___
9. Handrail Wreath	___/___/___

On-the-Job Skills Schedule

I certify the above activities were performed by me to the standard indicated:

Apprentice's Name _____
(BLOCK LETTERS)

Apprentice's Signature _____ Date ___/___/___

App. Reg. No. _____ App. PPS No. _____

The company Assessor/Verifier must sign-off the number of assessments completed and verify the activities and standards are authentic by assessing the apprentice on the tasks.

Apprentice's Start Date: Phase 7 ___/___/___ Finish Date: Phase 7 ___/___/___

(The minimum period of employment for on-the-job training for this phase is 12 weeks and assessments must be completed during this period)

I, the company Assessor/Verifier, certify that the apprentice named above has achieved the standard as specified for this phase; and that all SOLAS assessment regulations have been adhered to during these assessment events.

Assessor/Verifier _____
(BLOCK CAPITALS)

(Signature) _____

Company _____ Date: ___/___/___

Address: _____

Your local Education and
Training Board (ETB) Office: _____ :



Apprentice's Instructions

General Instructions:

1. Read the following carefully and make sure you understand all instructions. If you need clarification, check with the Supervisor/Assessor before the test begins.
2. Write your Apprentice Name/Registration No. on all answer sheets and test work.
3. Check that you have all the necessary materials before the test begins.
4. You must complete this test without assistance. Apprentice(s) assisting other apprentice(s) or interfering with their work will be disqualified from the test.
5. All test papers remain the property of SOLAS and the Department of Education and Skills, and must be returned to the Supervisor/Assessor immediately on completion of the test.

Supervisor's/Assessor's Instructions

General Instructions:

1. The Apprentice Name/Registration No. must be entered on all answer sheets and test work.
2. Before the test begins, read instructions aloud and allow time for the apprentice(s) to check instructions with you. Avoid instructing the apprentice(s) during the test, i.e. confine yourself to clarification of instructions.
3. When each apprentice is ready and you have checked that they have all the necessary materials, announce commencement of test and confirm finishing time.
4. The apprentice(s) must carry out the test without assistance. Apprentice(s) assisting other apprentice(s) or interfering with their work must be disqualified from the test.
5. The use of apprentice(s) notes of any description is not allowed during the test.
6. If the test is to be assessed as the apprentice(s) proceeds, ensure you are in a position to observe the apprentice(s).
7. Apprentice(s) must cease all work when the time for the test expires.
8. If apprentice(s) engage in unsafe practice, the test must be stopped immediately.
9. You should ensure that all test papers and test work are returned immediately on completion of the test.
10. Security of test documentation and confidentiality of test results to be maintained at all times.

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 1
Building Setting Out



Assessment 1: Building Setting Out

Specifications**Activity Description:**

- Set out the section of a building using profiles showing marks for foundations and walls. Take levels and record them

Conditions:

- Using hand and power tools, rough white deal timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Position of profiles correct
2. Building measurement correct $\pm 3\text{mm}$
3. Building square
4. Levels recorded

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Measuring and marking out
- Cutting
- Fixing

Technical Knowledge:

- Drawing symbols/notations
- Safety procedures
- Measurement
- Maths
- Measurements
- Fixing procedures

Assessment 1: Building Setting Out

Specifications**Personal Skills:**

- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Listing, selecting and ordering materials needed to complete a project
- Planning and sequencing operations to complete a project efficiently
- Interpreting verbal instructions
- Listing and selecting tools needed to complete a project
- Planning and sequencing operations to complete a work project efficiently
- Working safely within an agreed time scale
- Identifying defects in own work

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

 Assessment 1: Building Setting Out

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 1: Building Setting Out

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Position of profiles correct							
2. Building measurement correct ±3mm							
3. Building square							
4. Levels recorded							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 1: Building Setting Out

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Building Setting Out' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 2

Panelling



Assessment 2: Panelling

Specifications**Activity Description:**

- Set out section of panelling
- Set out and fix a section of wall panelling

Conditions:

- Using hand and power tools, timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Set out correctly
2. Section details correct
3. Corner/joint details correct
4. Fixing methods detailed
5. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Cutting and fixing

Technical Knowledge:

- Safety procedures
- Measurements
- Maths
- Fixing procedures
- Read and interpret drawings

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Working safely within an agreed time scale
- Using, handling and storing tools and equipment/material appropriately
- Interacting effectively with colleagues when working in a team
- Identifying defects in own work
- Identifying hazards

Assessment 2: Panelling

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately. All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.

Assessment 2: Panelling

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 2: Panelling

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Set out correctly							
2. Section details correct							
3. Corner /joint details correct							
4. Fixing methods detailed							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 2: Panelling

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Panelling' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 3
Fire Door/Frame



Assessment 3: Fire Door/Frame

Specifications**Activity:**

- Fit and hang fire door/frame

Conditions:

- Using hand and power tools, rough timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Doors/frame fitted correctly
2. Frames set and in line
3. Complying with regulations
4. All furniture/fixings fitted correctly

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Setting out and marking out
- Reading and interpreting drawings
- Using hand and power tools
- Cutting
- Fixing

Technical Knowledge:

- Drawing interpretation - drawing symbols
- Work planning
- Types of tools
- Measurements
- Safety procedures
- Maths

Personal Skills:

- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic or verbal instructions
- Listing, selecting and ordering materials needed to complete a project
- Planning and sequencing operations to complete a project efficiently

Assessment 3: Fire Door/Frame

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 3: Fire Door/Frame

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 3: Fire Door/Frame

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Doors/Frame fitted correctly							
2. Doors/Frame set and in line							
3. Complies with regulations							
4. All furniture/fixings fitted correctly							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 3: Fire Door/Frame

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Fire Door/Frame' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 4
Handrail Scroll



Assessment 4: Handrail Scroll

Specifications**Activity Description:**

- Set out a template for a handrail of single curvature scroll

Conditions:

- Using hand and power tools, timber, drawing and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Set out correctly
2. Template correct
3. Jointing position indicated correctly
4. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings

Technical Knowledge:

- Levelling
- Squaring
- Ranging
- Interpreting a drawing
- Types of fixings
- Types of fixing procedures
- Drawing symbols
- Maths
- Measurements

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Identifying defects in own work
- Interpreting verbal instructions
- Interacting effectively with colleagues when working in a team
- Identifying hazards
- Selecting tools and materials to complete a project

Assessment 4: Handrail Scroll

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 4: Handrail Scroll

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 4: Handrail Scroll

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Set out correctly							
2. Template correct							
3. Jointing position indicated correctly							
4. Learner autonomy							
5. Time efficiency							
6. Use of tools and materials							
7. Staging/organising							
8. Quality of Finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 4: Handrail Scroll

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Handrail Scroll' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 5

Oblique Plan Roof



Assessment 5: Oblique Plan Roof

Specifications**Activity Description:**

- Set out and cut the components required to construct a roof with oblique plan containing a hip or valley rafter

Conditions:

- Using hand and power tools, timber, drawing, fixings, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Rafters correct length
2. Plumb and seat cuts correctly
3. Hip/valley rafters correct length
4. Jack/cripple rafters correct length
5. Hip and jack rafters/valley and cripple rafters set out, cut and erected correctly
6. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings
- Cutting and fixing

Technical Knowledge:

- Safety procedures
- Measurements
- Maths
- Drawings and symbols
- Fixing procedures
- Read and interpret drawings
- Angles

Assessment 5: Oblique Plan Roof

Specifications**Personal Skills:**

- Planning and sequencing operations to complete a work project efficiently
- Working safely within an agreed timescale
- Using, handling and storing tools and equipment/material appropriately
- Interacting effectively with colleagues when working in a team
- Identifying defects in own work
- Identifying hazards

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 5: Oblique Plan Roof

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 5: Oblique Plan Roof

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Rafters correct length							
2. Plumb and seat cuts correctly							
3. Hip/Valley rafters correct length							
4. Jack/cripple rafters correct length							
5. Hip and jack rafters/valley and cripple rafters set out, cut and erected correctly							
6. Learners autonomy							
7. Time efficiency							
8. Use of tools and equipment							
9. Staging/organising							
10. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____

Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____

Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____

Date: _____

Assessment 5: Oblique Plan Roof

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Oblique Plan Roof' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 6

Tapered Steps



Assessment 6: Tapered Steps

Specifications**Activity Description:**

- Mark out and manufacture one flight of a stairs containing tapered steps

Conditions:

- Using hand and power tools, handrail bolts, dowels, drawings, handrail, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Tapered steps set out correctly
2. Rise and going correct $\pm 2\text{mm}$
3. Steps manufactured correctly
4. Free from twist
5. Safe work practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Reading and interpreting drawings
- Measuring and marking out
- Drilling
- Cutting
- Jointing
- Sanding

Technical Knowledge:

- Drawing interpretation - drawing symbols/notations
- Safety procedures
- Timber characteristics
- Measurements
- Maths
- Grades of sandpaper

Assessment 6: Tapered Steps

Specifications**Personal Skills:**

- Identifying hazards
- Interpreting verbal instructions
- Working safely within an agreed timescale
- Identifying defects in own work
- Estimating the time and material required to complete a project
- Using, handling and storing tools and material appropriately
- Interacting effectively with colleagues when working in a team

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 6: Tapered Steps

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 6: Tapered Steps

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Tapered steps set out correctly							
2. Rise and going correct +/-2mm							
3. Steps manufactured correctly							
4. Free from twist							
5. Learner autonomy							
6. Time efficiency							
7. Use of tools and materials							
8. Staging/organising							
9. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 6: Tapered Steps

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Tapered Steps' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 7

Wreathed String



Assessment 7: Wreathed String

Specifications**Activity Description:**

- Set out required shape of wreathed portion for geometrical stairs

Conditions:

- Using hand/power tools, woodworking machinery, timber, drawing, setting out rod, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. String set out correctly
2. Correct pitch
3. Correct joint lines
4. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Reading and interpreting drawings
- Using hand and power tools
- Using woodworking machines
- Measuring and marking out

Technical Knowledge:

- Drawing symbols/notations
- Measurements
- Maths
- Technical guidance documents
- Safety procedures

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Identifying hazards
- Identifying defects in own work
- Estimating the time and materials required to complete a project

Assessment 7: Wreathed String

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

**Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately.
All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.**

Assessment 7: Wreathed String

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 7: Wreathed String

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. String set out correctly							
2. Correct pitch							
3. Correct joint lines							
4. Learner autonomy							
5. Time efficiency							
6. Use of tools and materials							
7. Staging/organising							
8. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 7: Wreathed String

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Wreathed String' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 8

Curved Jig



Assessment 8: Curved Jig

Specifications**Activity Description:**

- Construct a curved jig to manufacture a component using laminates:

Conditions:

- Using hand and power tools, woodworking machinery, drawing, setting out rod, timber, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Jig set out correctly
2. Secure method of holding material
3. Safe means of operating jig
4. Safe working practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Reading and interpreting drawings
- Using hand and power tools
- Using woodworking machines
- Measuring and marking out
- Gluing and cramping

Technical Knowledge:

- Drawing symbols/notations
- Measurements
- Angles
- Maths
- Machine safety procedures

Personal Skills:

- Working safely within an agreed timescale
- Estimating the time and materials required to complete a project
- Using, handling and storing tools and material appropriately
- Interpreting diagrammatic and verbal instructions

Assessment 8: Curved Jig

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately. All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.

Assessment 8: Curved Jig

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 8: Curved Jig

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Jig set out correctly							
2. Secure method of holding material							
3. Safe means of operating jig							
4. Learner autonomy							
5. Time efficiency							
6. Use of tools and materials							
7. Staging/organising							
8. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 8: Curved Jig

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Curved Jig' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Carpentry & Joinery

Curriculum

Phase 7 Assessment Programme

Competency Assessment 9
Handrail Wreath



Assessment 9: Handrail Wreath

Specifications**Activity Description:**

- Develop a face mould for setting out, and shape a wreath to a given handrail section

Conditions:

- Using hand/power tools, woodworking machinery, drawing, setting out rod, timber, and within a time agreed in advance with the assessor

Apprentice(s) will be assessed under the following headings:**Standards:**

1. Set out correctly
2. Face mould produced correctly
3. Safety practices observed

Preparation:

- The apprentice will have already completed similar activities to the required standards
- The apprentice and assessor/supervisor will plan/select a suitable opportunity/work project to carry out the competency assessment and ensure the tools, equipment and materials are available prior to assessment

Practical Skills:

- Using hand and power tools
- Measuring and marking out
- Reading and interpreting drawings

Technical Knowledge:

- Cramping procedures
- Measurements
- Drawing symbols/notations
- Safety Procedures

Personal Skills:

- Planning and sequencing operations to complete a work project efficiently
- Selecting tools and materials to complete a project
- Working safely within an agreed timescale
- Identifying hazards

Assessment 9: Handrail Wreath

Specifications

Assessment Methods:

- Observation of work method
- Visual inspection of completed work

Note: If apprentice(s) engage in unsafe work practices, the test must be stopped immediately. All appropriate Personal Protective Equipment (PPE) must be worn for the duration of the assessment.

Assessment 9: Handrail Wreath

Supervisor/Assessor Assessment Report

This form provides the opportunity for the Supervisor/Assessor to provide feedback on the assessment event.

The form should be completed by the Supervisor/Assessor following the assessment event and forwarded to: SOLAS Apprenticeship Services Unit, SOLAS, Castleforbes House, Castleforbes Road, Dublin 1.

Employer's name:	Contact number:
Assessment location:	
Address:	

	Yes	No	Comment
Q1. Did the assessment location have all the necessary materials, equipment and resources to conduct the assessment effectively?	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Were there any issues with the supervisor's and/or candidate's instructions for this assessment?	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. During the assessment event did any issue arise, or unforeseen event occur?	<input type="checkbox"/>	<input type="checkbox"/>	
Q4. Did any breach/suspicion of breach of assessment regulations occur?	<input type="checkbox"/>	<input type="checkbox"/>	

Please record any comments, recommendations, corrective or preventive actions:

--

Assessor's Name:

(Block Capitals): _____

(Signature): _____ Date: _____

Assessment 9: Handrail Wreath

Marking Scheme

Time Allowed: ____.

No.	Attempt >	Point: Achieved ✓ Not Achieved X					
		1	2	3	4	5	6
1. Set out correctly							
2. Face mould produced correctly							
3. Learner autonomy							
4. Time efficiency							
5. Use of tools and materials							
6. Staging/organising							
7. Quality of finished product/process							
RESULT: P/R							

R- Referred = ALL Points NOT achieved **P-** Pass = ALL Points achieved

All Points must be achieved to obtain a Pass in this Assessment

Apprentice's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Assessor's Name

(BLOCK CAPITALS): _____

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____

Assessment 9: Handrail Wreath

Performance Feedback Sheet

The purpose of this form is to provide an opportunity for the assessor to give feedback to the apprentice(s) on their performance and to log the outcome of their performance:

Apprentice's Name:

(Block Capitals): _____

Assessor's Name:

(Block Capitals): _____

Assessment Location:

(Block Capitals): _____ Date: _____

Assessor's Feedback:

Apprentice's Response:

I certify that the assessment 'Handrail Wreath' was performed by me and the feedback given to me by the assessor is a true reflection of my performance:

Apprentice's

(Signature): _____ Date: _____

Assessor's:

(Signature): _____ Date: _____

Internal Verifier's

Name: (if sampled): _____

(Signature): _____ Date: _____