



Apple Technology: Uniquely Equipped to Let Every Student Succeed

Built-in solutions that break down barriers to learning.



For more than 25 years, Apple has been dedicated to developing products that engage all students, enhance their studies, and inspire them to achieve their best—regardless of physical or learning disability. Many Apple products, including the Mac, iPhone, iPad, iPod touch, and Apple TV come with assistive technologies, so students everywhere can compensate for learning differences using today's resources and tools.

No hidden costs.

Apple includes assistive technology in its products as standard features—at no additional cost. For example, iPhone, iPad, iPod touch, and Mac OS X include screen magnification and VoiceOver, a screen-access technology for blind and low-vision users. To assist those with cognitive and learning disabilities, every Mac includes an alternative, simplified user interface that rewards exploration and learning. And, for those who find it difficult to use a mouse, every Mac computer includes Mouse Keys, Slow Keys, and Sticky Keys, which adapt the computer to the user's needs and capabilities.

New ways to learn.

Digital media tools integrated into the the Mac, iPhone, iPad, and iPod touch instill confidence in and out of the classroom. Students who have difficulty with traditional forms of classroom communication can express themselves using iLife software—through slide shows, movies, audio presentations, and music. Hearing-impaired students can use sign language to communicate using video iChat¹ and FaceTime.² Because these and other tools are standard, the same hardware can serve everyone in your classroom, including those with diverse needs. And, with all the educational apps available in the App Store, you can personalize learning for each and every student.

Funding the investment in Apple learning solutions.

The Individuals with Disabilities and Education Act (IDEA) allocates billions of federal, state, and local dollars to help communities offset the costs of providing a “free and appropriate education” to students. Apple technology can help you meet IDEA goals and other federal guidelines—and stay within your budget. For example, VoiceOver, which addresses Section 508 of the Rehabilitation Act of 1973, is included in Mac OS X Snow Leopard, iPhone, iPad, and iPod touch at no additional cost.



Literacy and learning

A range of tools that help students get organized, stay focused, and improve reading comprehension.

Vision

Built-in tools and technologies to help blind and low-vision students.

Hearing

A variety of features that assist students who have difficulty hearing speech, sounds, and alerts.

Physical and motor skills

Features that help students with difficulties using the keyboard, mouse, and trackpad.

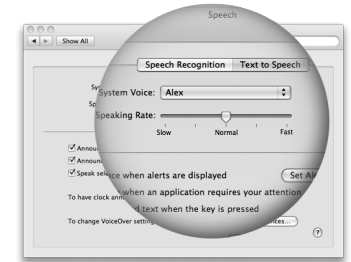
For more information

If you want to learn more about accessibility features and how they are improving learning, visit www.apple.com/accessibility and www.apple.com/education/special-education

Literacy and Learning

The built-in features of Apple products help students get organized, stay focused, and learn in ways that fit their special styles and capabilities.

- Text to Speech technology (TTS) on the Mac lets students who have difficulty with reading comprehension hear a word or paragraph as they're reading it onscreen.
- The Oxford Dictionary and Thesaurus integrate with most Mac applications, as do spell and grammar check and word completion.
- Summarize condenses long passages into shorter segments to help keep the attention of students who tend to lose focus.
- Voice Memos on iPhone and iPod touch lets students record themselves reading text, which allows them—and their teachers—to evaluate reading fluency.
- iLife, a fully integrated suite of applications on every Mac, makes it easy for students to communicate their ideas using videos, photos, music, speech, podcasts, and websites.
- iTunes provides a convenient way to organize podcasts, spoken tracks, lessons, slideshows, and other audio and video files—and make them accessible on Mac, iPhone, iPad and iPod touch.³
- Using iCal, students get automatic reminders so they stay focused and don't miss assignment deadlines or appointments.
- The Finder displays files as images, text, or icons on the Mac desktop, making it easy for students to find assignments and work in progress.
- The Spotlight searching feature is available with a simple keyboard shortcut and finds all files related to a search term by typing just a few letters.



Students who have reading comprehension difficulties can use Text to Speech to hear the words they're reading onscreen.

Vision

Integrated features in the Mac, iPhone, iPad, and iPod touch help blind and low-vision students overcome traditional barriers to learning using technologies that range from screen magnification and display contrast to the unique VoiceOver screen reader.

- The built-in VoiceOver screen reader lets students hear a spoken description of what's on a Mac, iPad, iPhone, or iPod touch screen. And because VoiceOver supports gesture-based and keyboard controls, students have an alternative to using a mouse. On the Mac, settings can be customized, saved to a USB flash drive, and applied to a different Mac, so the student isn't tied to one computer. VoiceOver also works in over 20 languages on a Mac and 30 languages on iPhone, iPad, and iPod touch.
- VoiceOver works with more than 40 different models of refreshable Braille displays on a Mac and over 30 models of Bluetooth braille displays on an iPhone, iPad, or iPod touch.⁴ Connect a Braille display to a Mac, and the display exhibits spoken output as onscreen Braille or text, allowing for collaboration with all peers. And with Braille Mirroring, one Mac can control multiple braille displays simultaneously so everyone can follow along together.
- Using Zoom, students can magnify the entire screen up to 40x on a Mac and up to 5x on an iPhone, iPad, or iPod touch.
- The iPod nano and iPod shuffle feature VoiceOver technology that makes it easy for students to navigate playlists, find tracks, and listen to lectures and to other downloaded content.
- The "Add to iTunes as Spoken Track" feature converts text to spoken audio, allowing students to download tracks to an iPhone, iPad, or iPod touch for listening on their own time. Students who are using VoiceOver can do this independently because VoiceOver is compatible with iTunes.³



The built-in VoiceOver screen reader lets students hear what's onscreen.

Hearing

Mac, iPhone, iPad, and iPod touch each come with powerful listening comprehension features and tools that are designed to assist deaf or hard-of-hearing students.

- Open and closed captioning support is standard on a Mac through QuickTime and DVD Player. Students can also download and watch captioned movies and other iTunes content on iPhone, iPad, and iPod touch, and even PCs (using QuickTime for Windows).
- Mac OS X can flash the screen as an alternative to playing system beep sounds to let students know that an application requires attention.
- The built-in iSight camera and iChat software on the Mac make it easy for students to collaborate in real time using text messages or video conferencing. They can engage in group chats, share their work, or edit documents during a chat session. And iChat video quality uses a frame rate strong enough for communicating with sign language.¹
- FaceTime video calling is another great way to conduct sign language conversations from one iPhone to another or from a Mac to an iPhone.²
- Photo Booth gives students yet another option for communicating with sign language. Integrated beautifully with the built-in iSight camera, Photo Booth displays photos and videos the moment they're captured. Students can record a video message with one click, then email it with a second click.
- Mono audio is easily activated on iPhone and iPod touch, which allows both left and right ear audio to channel through both earbuds. This allows someone with hearing loss in one ear to still get access to all audio.



Closed captioning support in QuickTime and DVD Player lets deaf and hard-of-hearing students watch captioned movies and other iTunes content.

Physical and Motor Skills

Apple is the industry leader in interface design and has invested decades making products easier to use. This has provided innovative ways for students with physical or motor-skill disabilities to control the Mac using their choice of keyboard, mouse, or trackpad. And the revolutionary iPhone, iPad, and iPod touch deliver a variety of features that make them more accessible to those students, too.

- The unique Multi-Touch technology built into every new MacBook and MacBook Pro is ideal for students who have difficulty using the mouse or keyboard. Students can use simple gestures to navigate the screen, zoom in on text, flip through a photo library, or fine-tune an image. And for those who don't have the built-in trackpad, the new Magic Trackpad is the first Multi-Touch trackpad designed to work with a Mac desktop computer. The iPhone, iPad, and iPod touch are also equipped with a high-resolution Multi-Touch screen—giving students easy access to thousands of educational apps available in the App Store.
- For students who have difficulty using a mouse, Mouse Keys allows them to use the keys on a numeric keypad to control the mouse pointer, menus, windows, and other controls.
- Slow Keys, which adds a delay between the time a key is pressed and when its action is accepted, helps students who struggle with typing avoid unintended multiple keystrokes. And for students who have trouble pressing multiple keys simultaneously, Sticky Keys lets them enter key combinations in sequence.
- Apple's Inkwell technology translates handwriting from a connected graphics tablet into onscreen text. Inkwell supports standard stylus gestures, making it easy for students to select, edit, and delete text on the tablet.
- The Automator application in Mac OS X reduces frustration by performing complex or routine tasks with a single click. Record the task once and Automator will perform each step perfectly, every time.



The Automator application records complex or routine tasks, then performs each step perfectly, every time.

Apple accessibility at a glance.

Apple technology provides cost-effective solutions for supporting individualized instruction. The Universal Access features in Mac OS X and iOS are designed to work together and with other applications to provide accessibility to all learners.

BV	DH	PM	L&L	Feature	Function	Mac OS X	iOS
•		•	•	VoiceOver	Provides access to the Mac, iPhone, iPad, and iPod touch, and iTunes through speech, audible cues, and keyboard and gesture-based trackpad navigation; supports multiple languages. ⁴	•	•
•				Braille	Supports contracted and uncontracted Braille. On a Mac, delivers plug-and-play Braille display support for more than 40 USB and wireless models, a Braille font, and onscreen Braille/English translation. Braille mirroring allows multiple USB braille displays to connect to one computer simultaneously. On iPhone, iPad, or iPod touch, delivers plug-and-play braille display support for over 30 wireless models. ⁴	•	•
•			•	Multiple language support for VoiceOver	Works in over 20 languages on a Mac and over 30 languages on iPhone, iPad, and iPod touch.	•	•
•	•	•	•	Zoom	Magnifies screen by up to 40x on a Mac and 5x on an iPhone, iPad, or iPod touch.	•	•
•		•	•	Text to Speech	Speaks highlighted text as well as text in dialogs and alert messages.	•	
•		•	•	Voice Recognition	Operate elements of the Mac, iPhone, or iPod touch with spoken commands.	•	•
•			•	View and Magnification	Increase icon, text, and cursor size, and magnify items in the Dock.	•	
•			•	Display Adjustment	Adjust display to enhance readability (grayscale, monochrome, or high-contrast video display). Control text and icon size in the Finder in Mac OS X and in Mail, Contacts, and Calendars in iOS.	•	•
•			•	Keyboard Navigation	Manipulate the user interface using only the keyboard, and create keyboard shortcuts.	•	
•	•	•	•	Mac OS X built-in text editing	Use powerful systemwide text tools in Mac OS X, such as Dictionary, Spell Check, Word Completion, Summarize, and "Add to iTunes as a Spoken Track."	•	
		•		Sticky Keys	Press a set of modifier keys as a sequence rather than all at once.	•	
		•		Mouse Keys	Perform mouse functions with the numerical keypad.	•	
		•		Slow Keys	Creates a delay between when a key is pressed and when it's accepted, accommodating users who frequently press wrong keys accidentally.	•	
	•		•	Flash Screen	Flashing screen indicates an alert sound.	•	
	•		•	QuickTime Text Track	Enables text access to audio in video or audio-only content.	•	•
•	•	•	•	Multiple users	Computer can retain preferred accessibility settings for each student.	•	
•		•	•	Keyboard Viewer	View and use the keyboard on the computer screen.	•	
•		•	•	Talking clock and calculator	Announces the time on the hour, half hour, or quarter hour. Also announces each button clicked on the calculator and the results of calculations.	•	
•	•	•	•	Automator	Creates workflows easily to automate repetitive tasks.	•	

BV= Blind and low vision

DH = Deaf and hard of hearing

PM = Physical & motor disabilities

L&L = Literacy & learning challenges

To learn more about Apple technology for special needs, contact an Apple representative at 1-800-800-APPL.

¹Broadband Internet access required for video chat; fees may apply. ²Mac: FaceTime requires Mac OS X v10.6.4 Snow Leopard or later. iPhone and iPod touch: FaceTime requires iPhone 4 or fourth-generation iPod touch and a Wi-Fi connection for both caller and recipient. ³Requires iTunes, compatible hardware and software, and Internet access; broadband recommended (fees may apply). See www.apple.com/itunes/whats-on for more information. Terms apply, see www.apple.com/legal/itunes/us/terms.html for details. ⁴Requires iOS 4.2 or later and iPad, iPhone 4, iPhone 3GS, or iPod touch (third generation, 32GB and 64GB models and later).