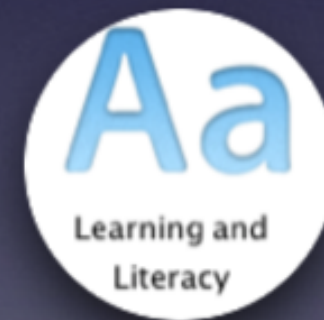
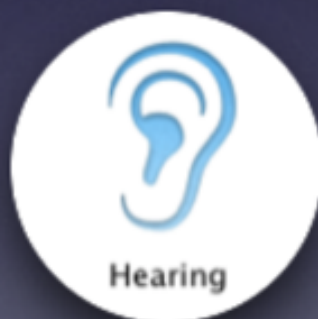


Assistive Technology for Inclusive Learning

An Introduction to Assistive Technologies Built into the MacBook

Click on an image below to skip to that section.



Nick LaFave

Technology Integration Specialist

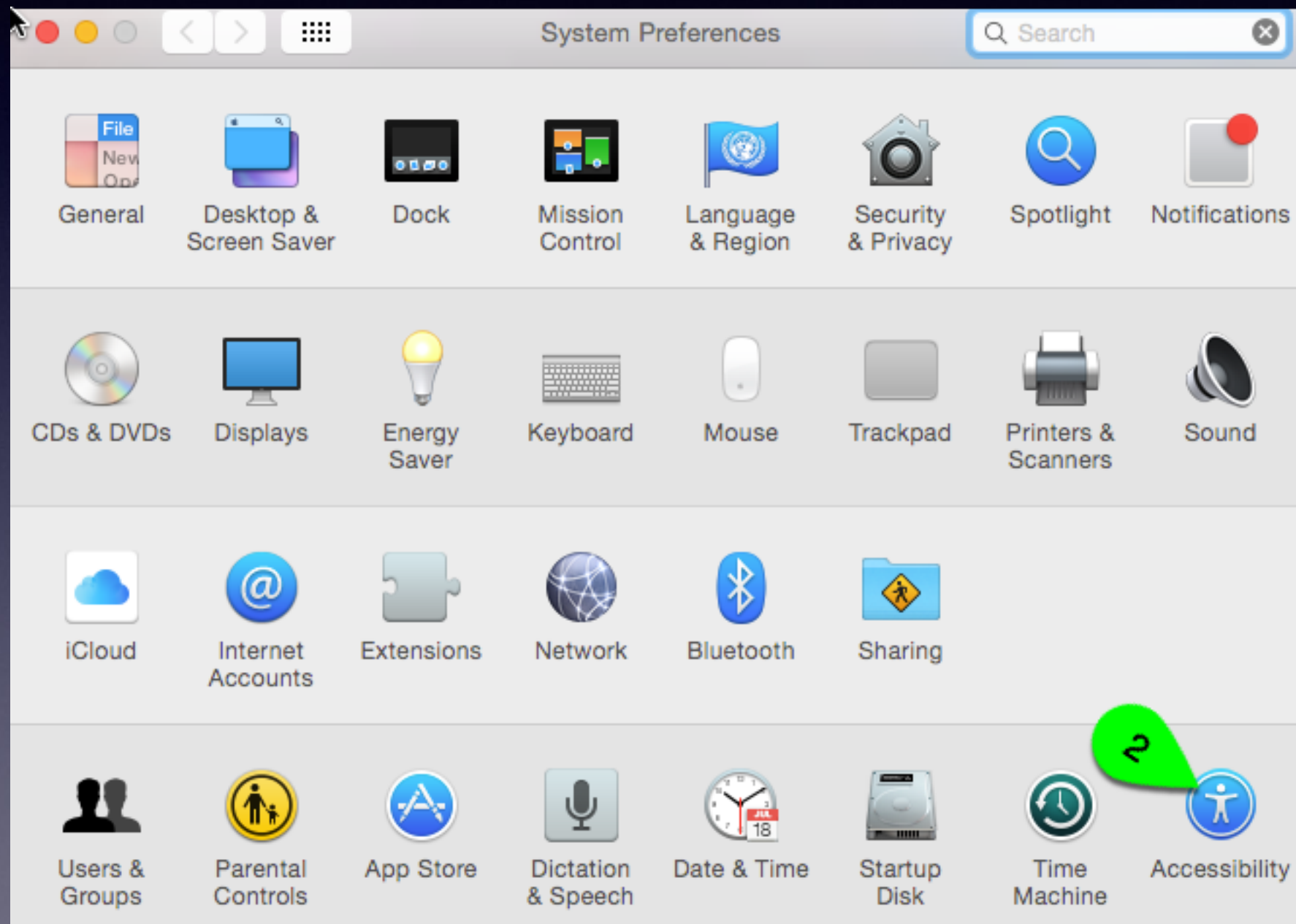
EdTech Consultant

 **@nflafave**



EdTechPicks.org

Accessing Accessibility Features



Vision

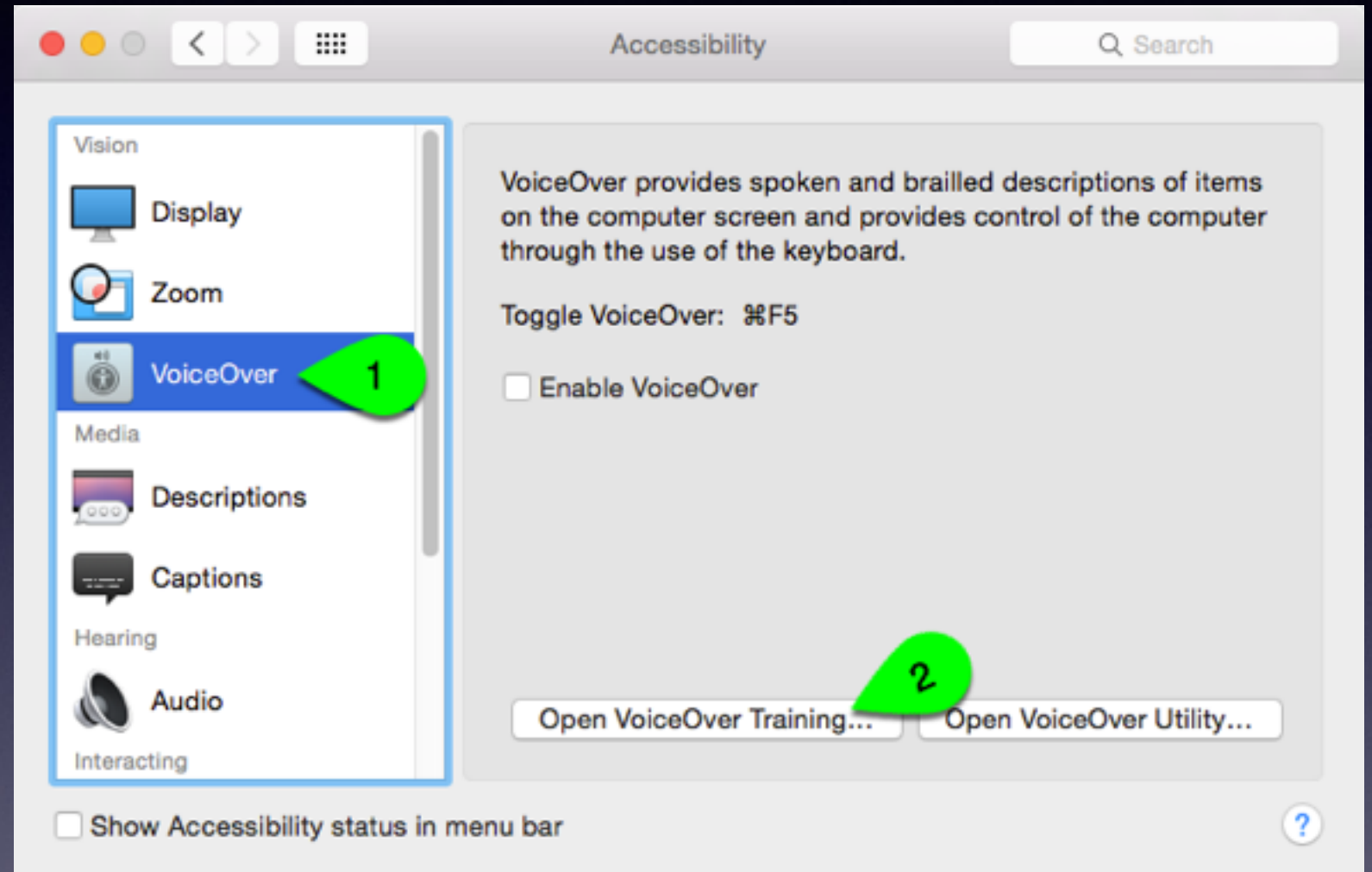


Vision

Voice Over

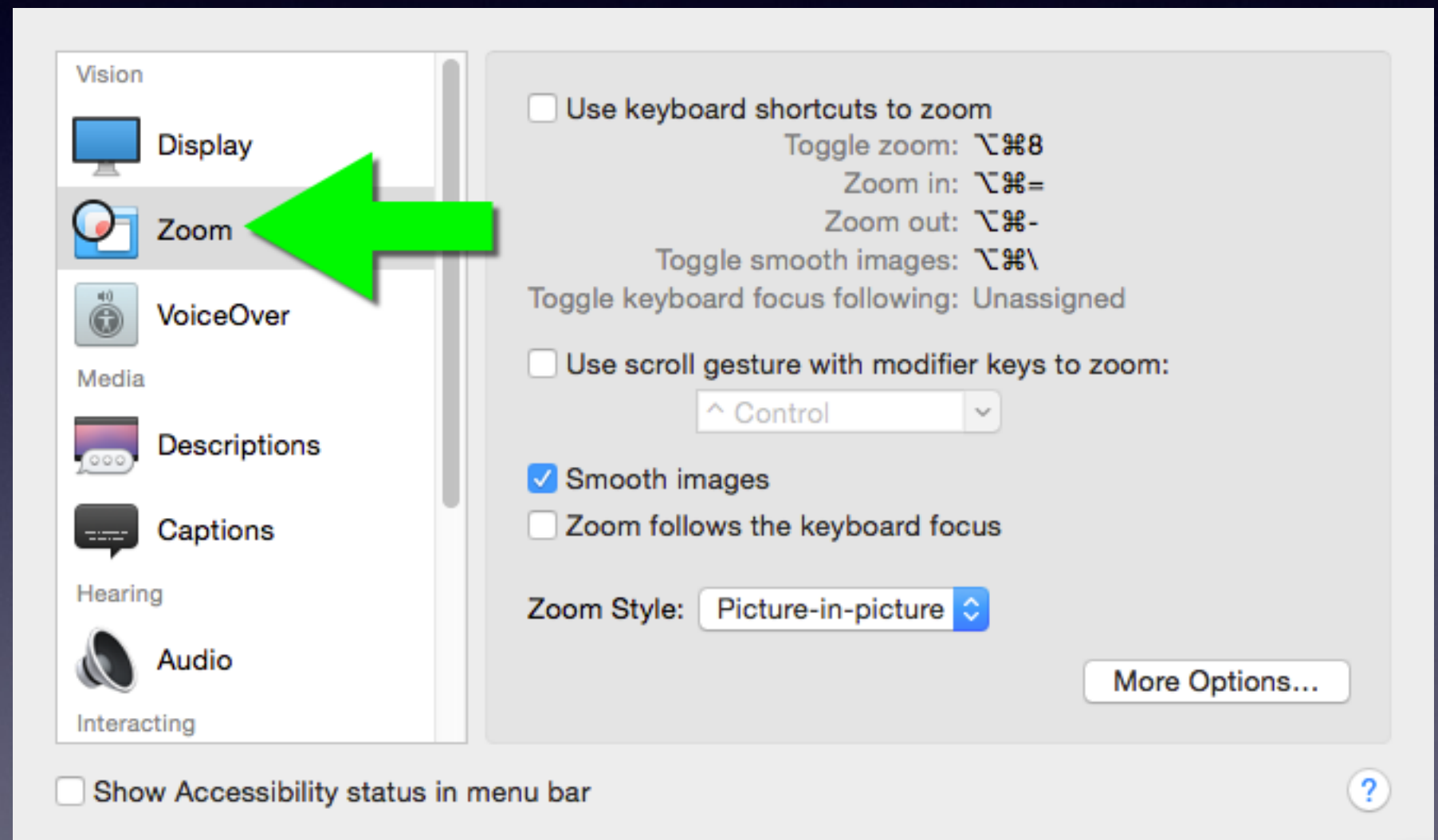
Complete Control of Your Mac without Needing to See the Screen

- It tells you what's on your screen.
- Walks you through actions like:
 - selecting a menu option
 - activating a button using the keyboard or trackpad
- Over 30 languages
- Also works with native apps in iOS



Zoom

- built-in magnifier
- enlarge your screen up to 20 X
- full screen or picture-in-picture



Dictation

Talk where you would type:

- reply to an email
- search the web
- write a report, etc

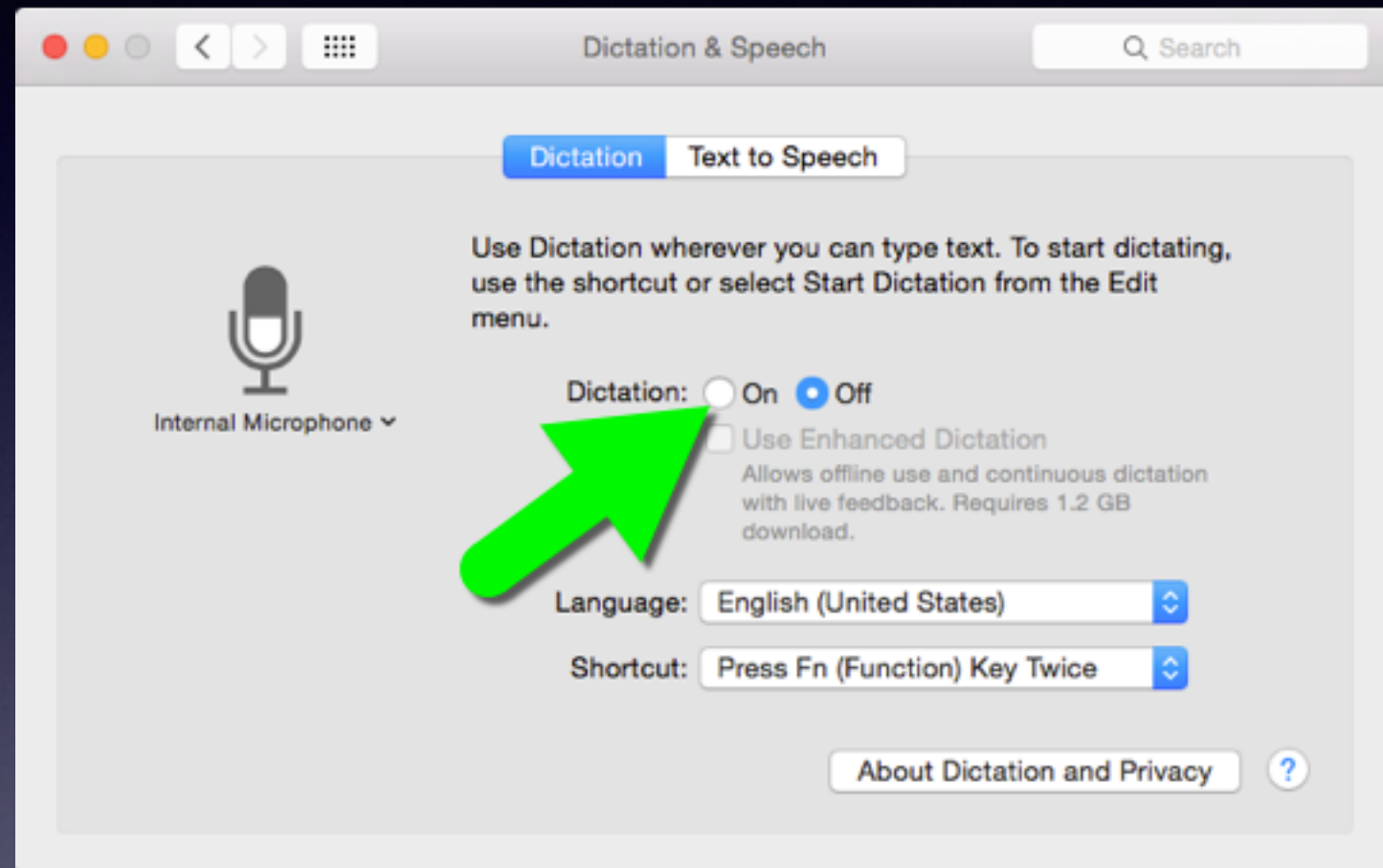
Works in over 40 languages.



Dictation

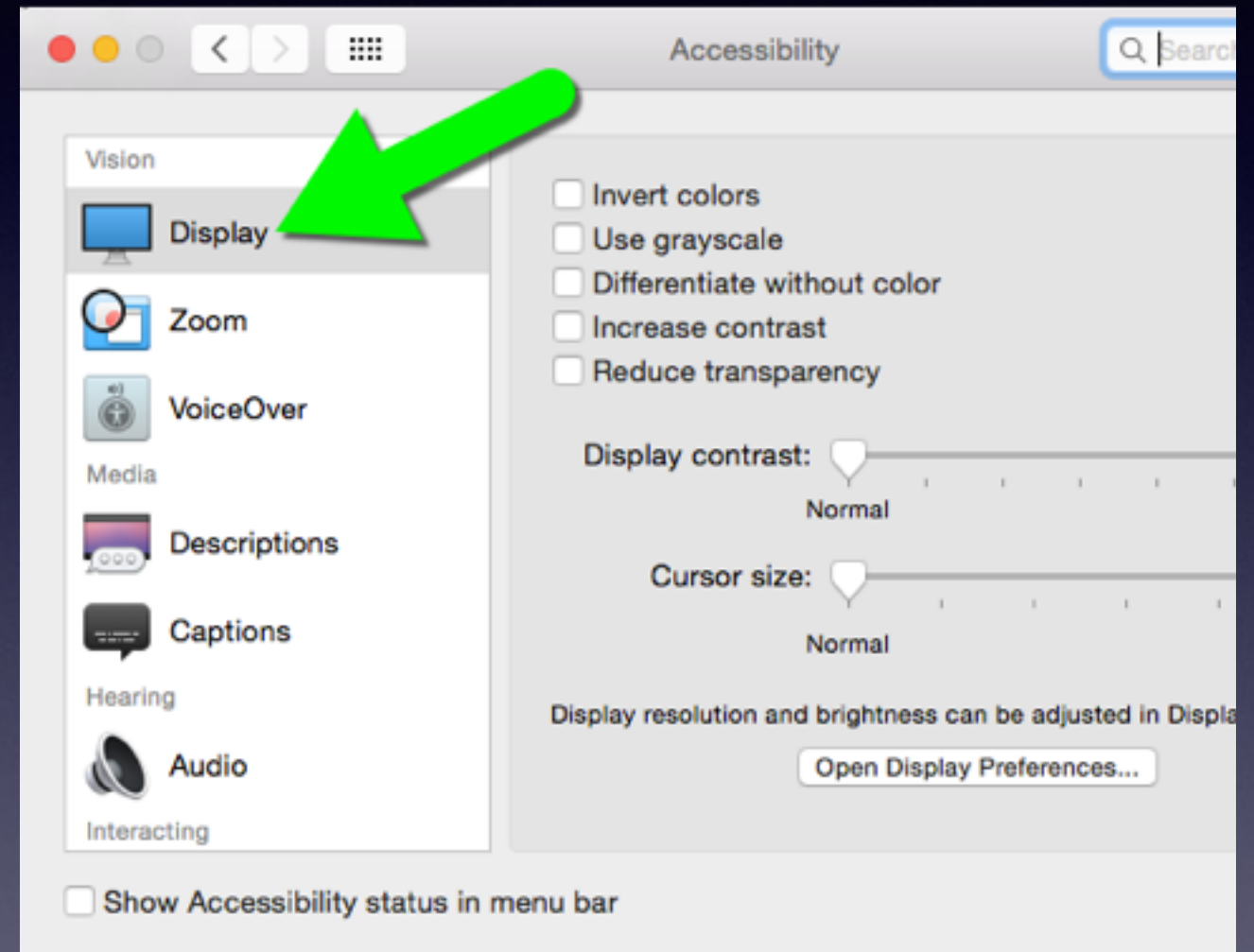
How?

1. Navigate to any text field.
2. Activate Dictation.
3. Say what you want to write.



Contrast Options

- Increase Contrast - to enhance definition
- Enable Grayscale
- Invert Colors
- Reduce Transparency (in some apps)

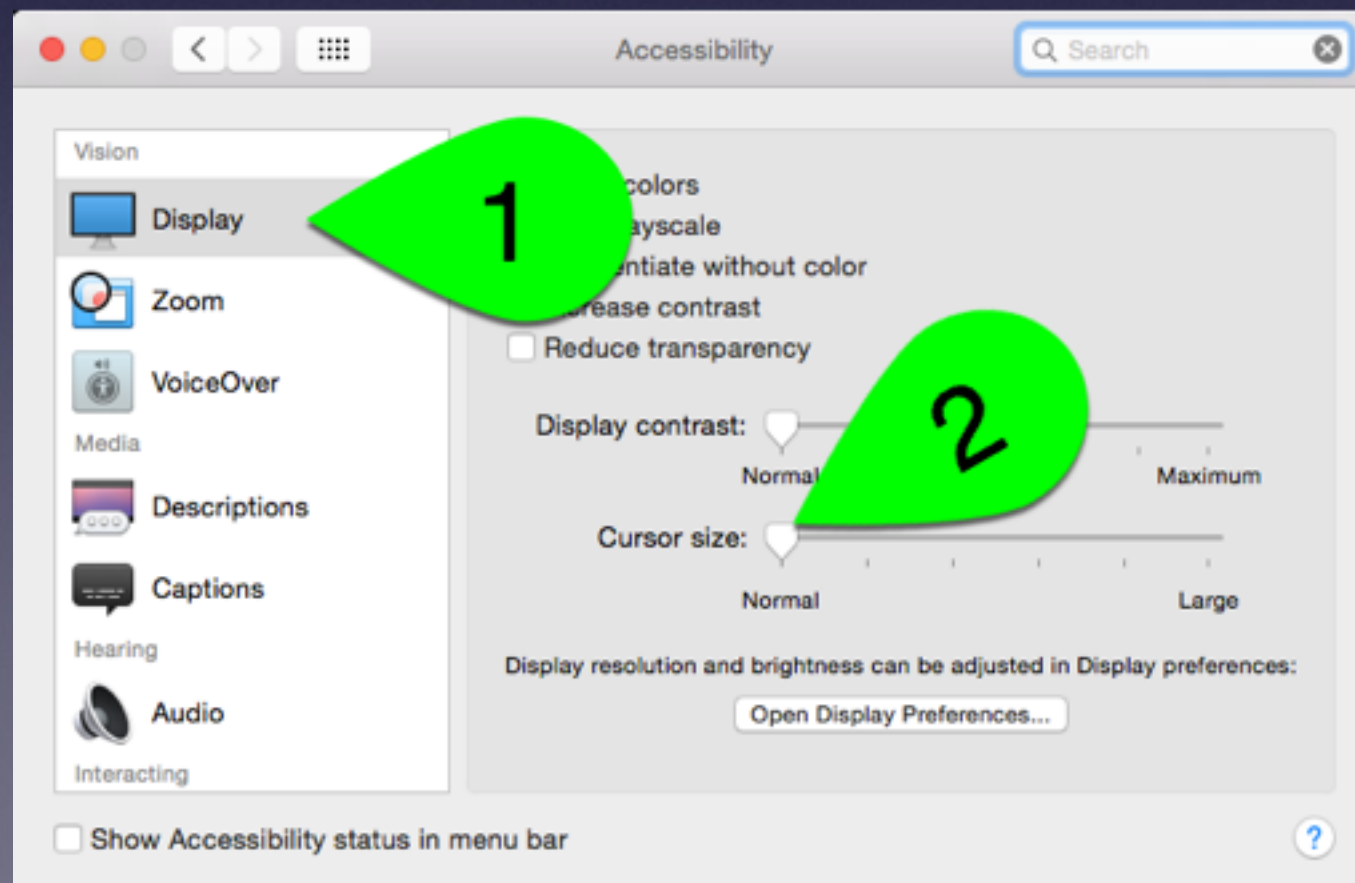


Once you set your preferences, they apply systemwide.



Cursor Size

- Magnify your cursor.
- Easier to see where you are and follow along.
- Set the cursor size once and it stays magnified.
- Swipe back and forth on your trackpad and the pointer grows.



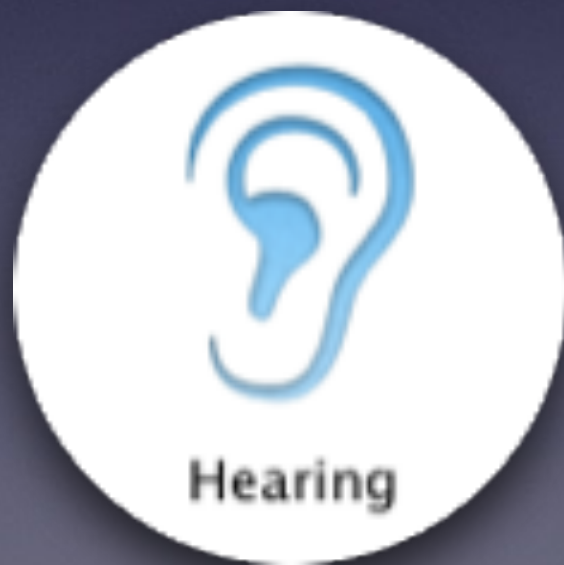
Braille Displays

- Software drivers for both USB and Bluetooth wireless displays.
- More than 50 refreshable braille displays that work with VoiceOver.
- No additional software needed.

<http://www.apple.com/accessibility/osx/braille-display.html>



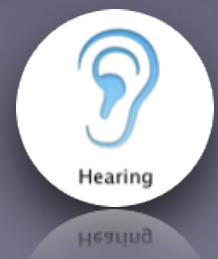
Hearing



Hearing

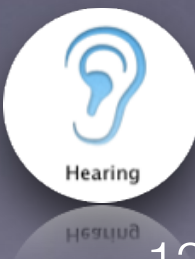
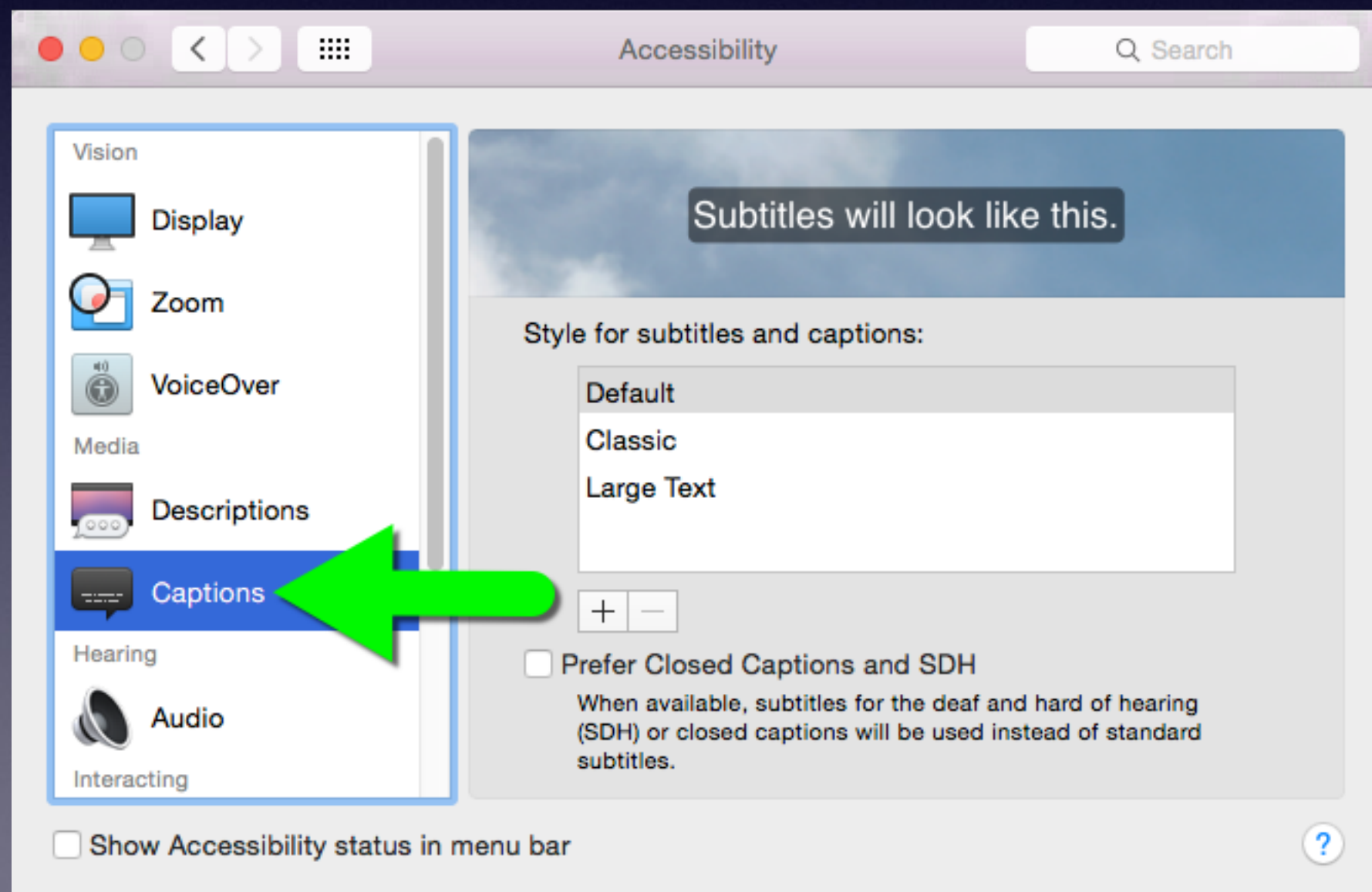
FaceTime

- Video Calls
- Catch every gesture and facial expression — from raised eyebrow to ear-to-ear smile.
- Ideal for people who communicate using sign language.



Closed Captions

- Supported in apps like iTunes, QuickTime, and DVD Player.
- You can customize captions with different styles and fonts.



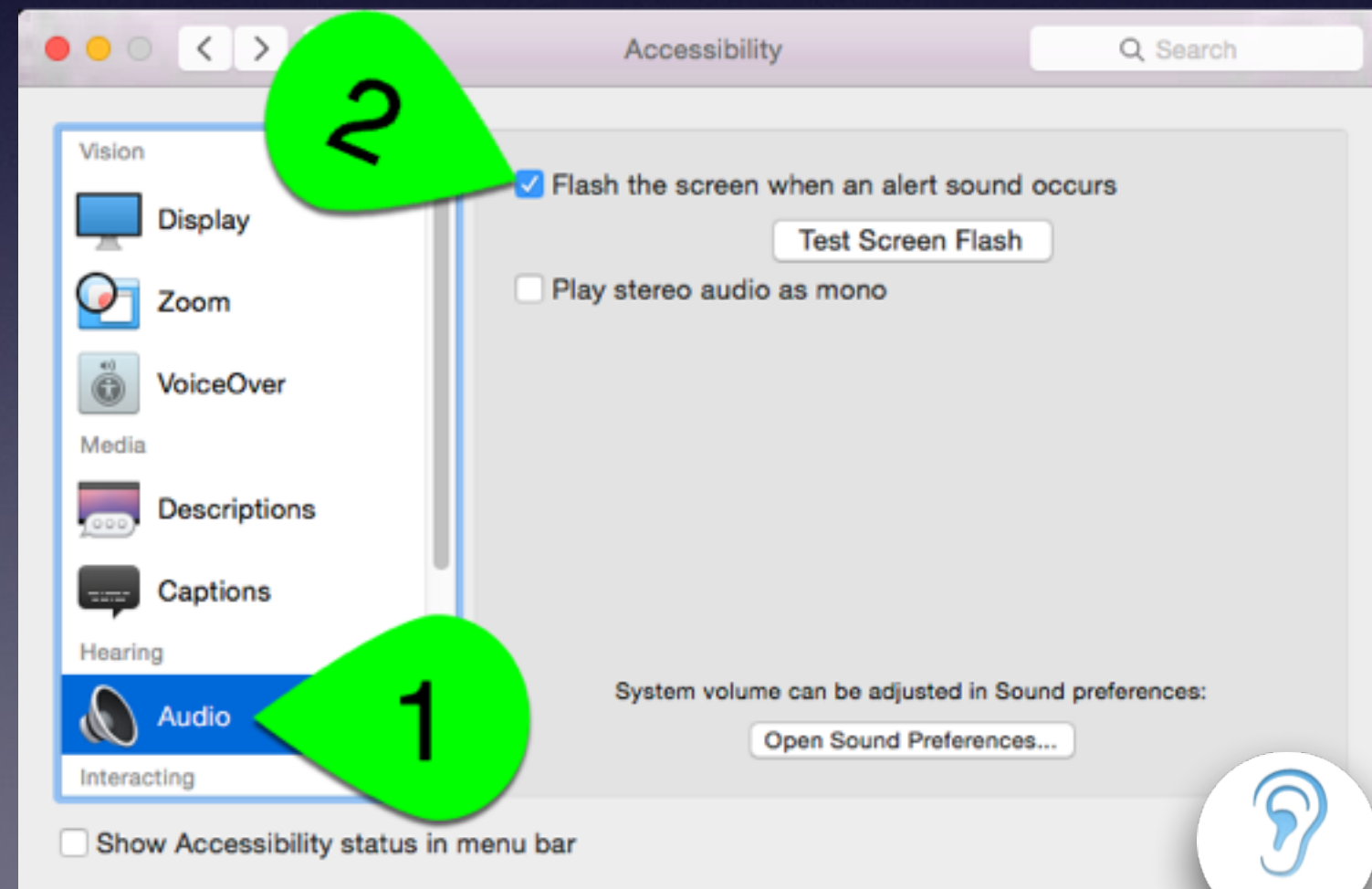
Message with iMessage

Conversations
without needing to
say or hear a word.



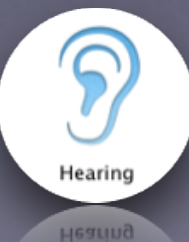
Screen Flash

- Instead of playing an alert sound, your Mac can flash its screen when an app needs your attention.
- Automatically works with every app that uses the system beep.



Mono Audio

- When you're using headphones, you may miss some audio if you're deaf or hard of hearing in one ear.
- Stereo recordings usually have distinct left- and right-channel audio tracks.
- Play both audio channels in both ears.
- Adjust the balance for greater volume in either ear.



Physical and Motor Skills



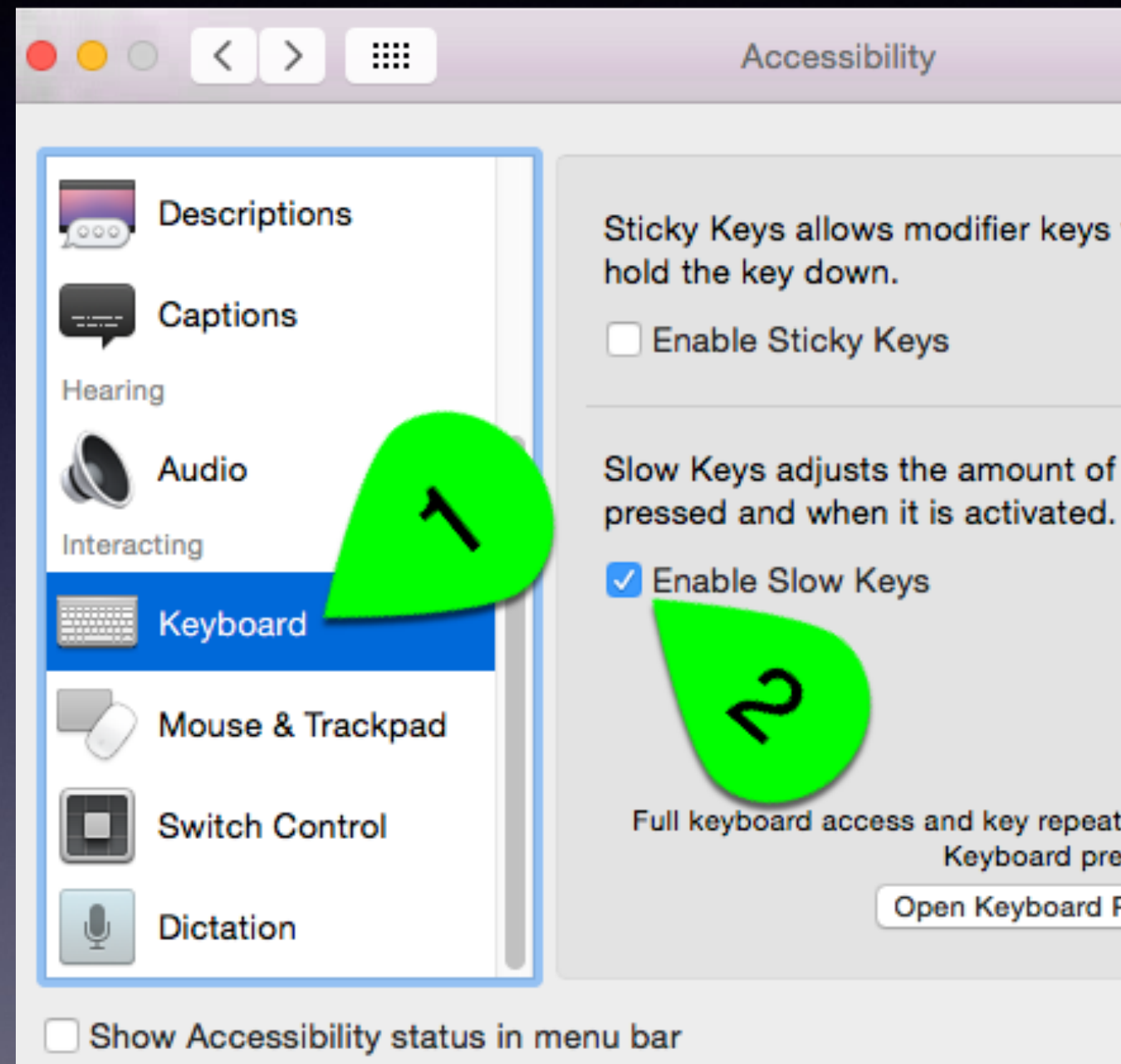
Switch Control



- For anyone with significantly impaired physical and motor skills.
- Use a variety of adaptive devices such as a switch, a joystick, a keyboard space bar, or even a single tap on the Multi-Touch trackpad for easy control.
- Navigate onscreen keyboards, menus, and the Dock using a system commonly referred to as scanning.

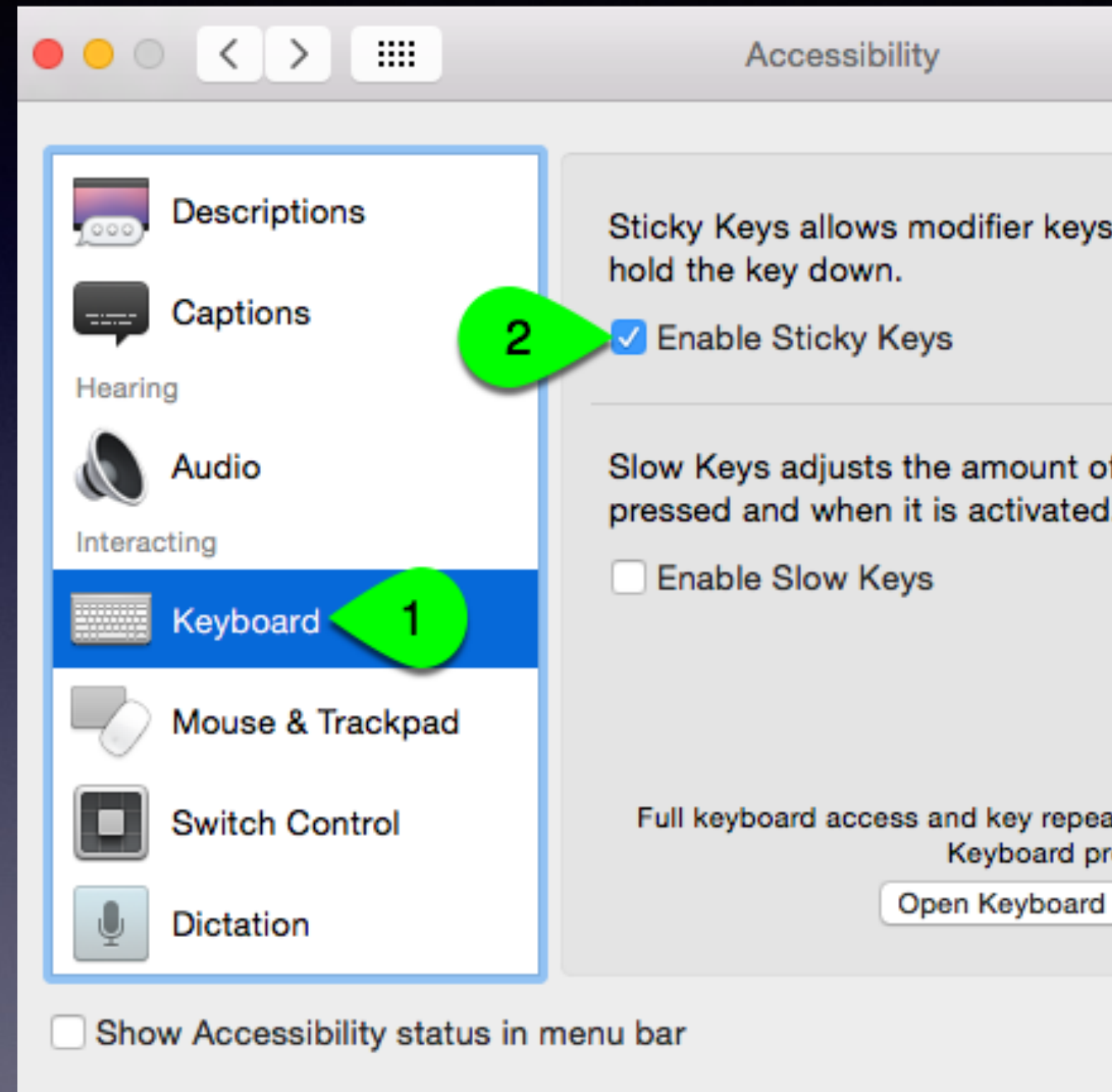
Slow Keys

- Adjusts the sensitivity of the keyboard to process only the keystrokes you mean to make.
- Builds in a delay between when a key is pressed and when it's entered.
- Adjust the delay and choose to have a sound play when a key is entered.



Sticky Keys

- Press keys one at a time, instead of simultaneously, to enter commands.
- Enter a key combination — such as Command-S (for Save)
- Each pressed key is displayed, accompanied by a sound effect, so you can make sure the right keys are entered.



Dictation

More than 50 editing and formatting commands.

Tell your Mac to:

- bold a paragraph
- delete a sentence,
- replace a word

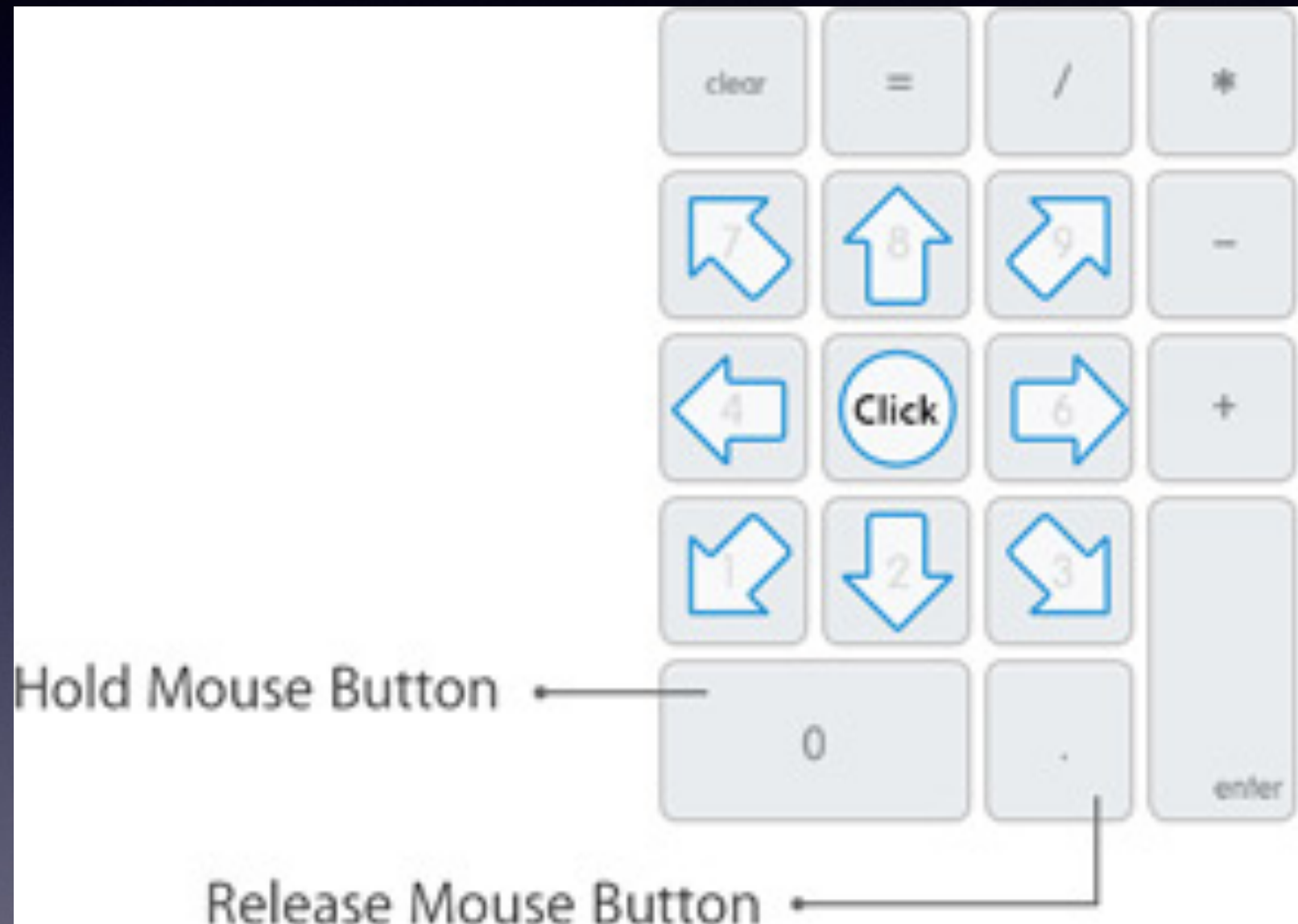
Create your own dictation commands with Automator workflows.



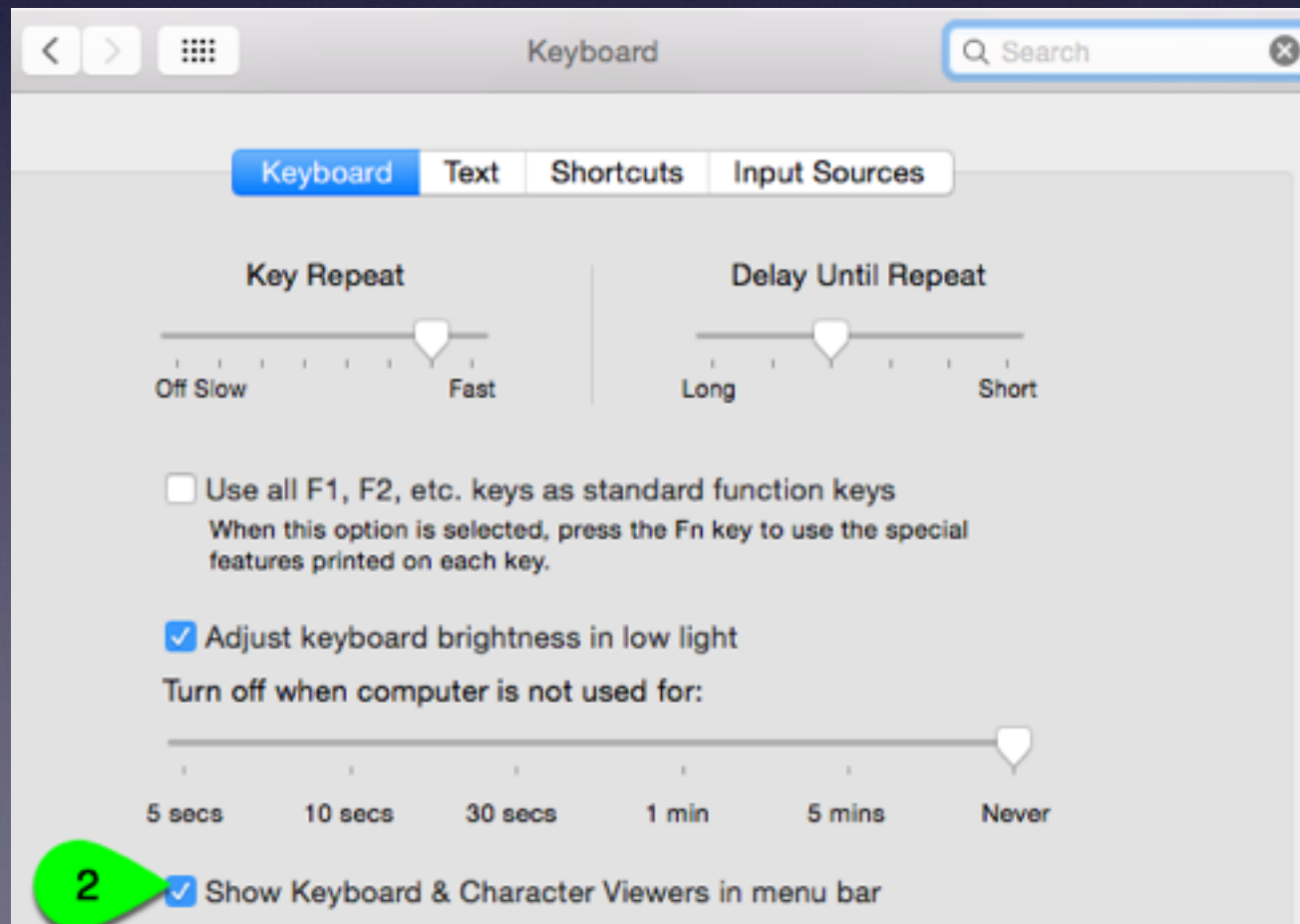
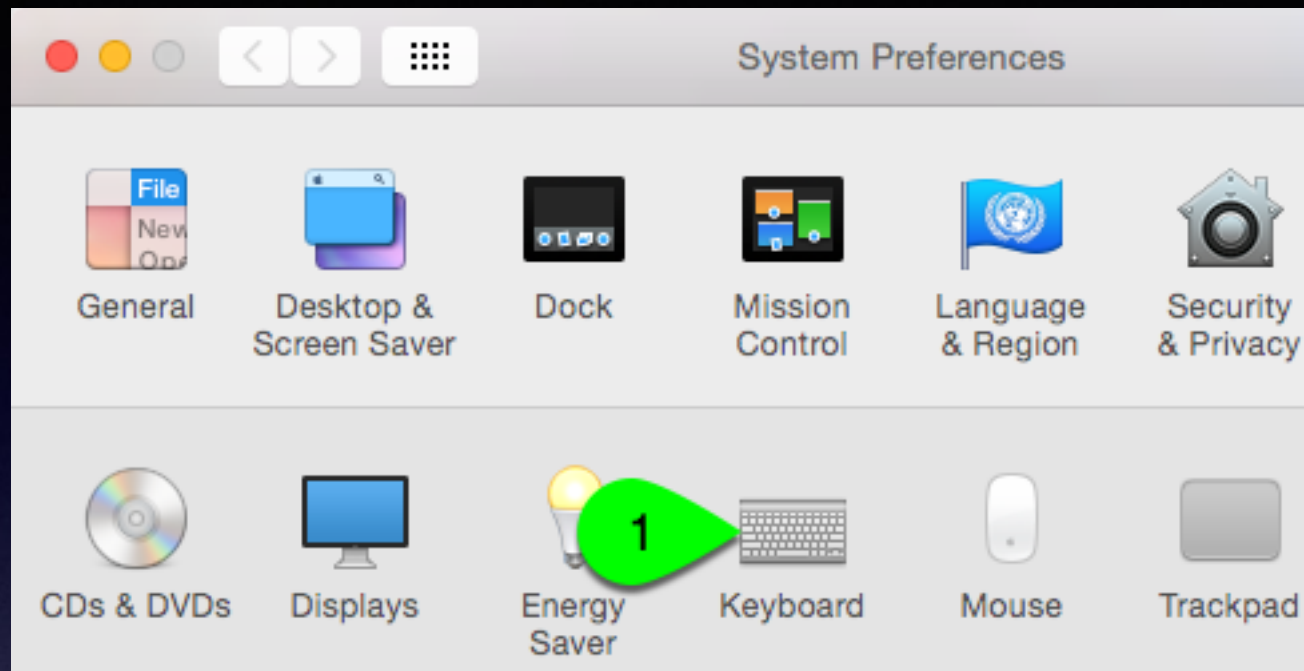
Mouse Keys

Difficulty using a mouse or trackpad?

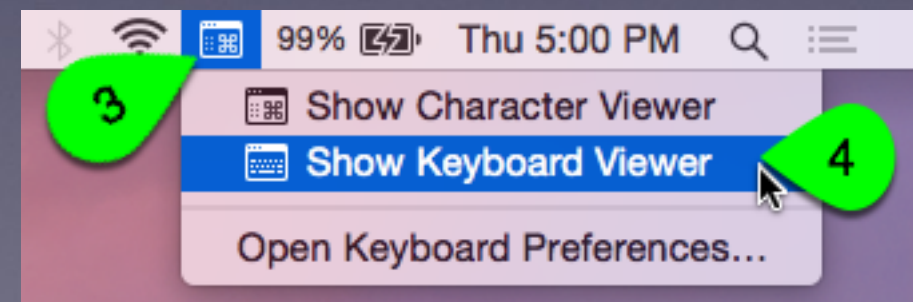
- Control the cursor with a numeric keypad.
- Press a number key as the mouse button.
- Use other number keys to move around the screen or to drag and drop items.



Onscreen Keyboard



- Use a pointing device instead of a keyboard.
- A keyboard image floats above other applications
- “Type” using a mouse or other pointing device.
- Turn on Sticky Keys to enter keyboard shortcuts via the onscreen keyboard.



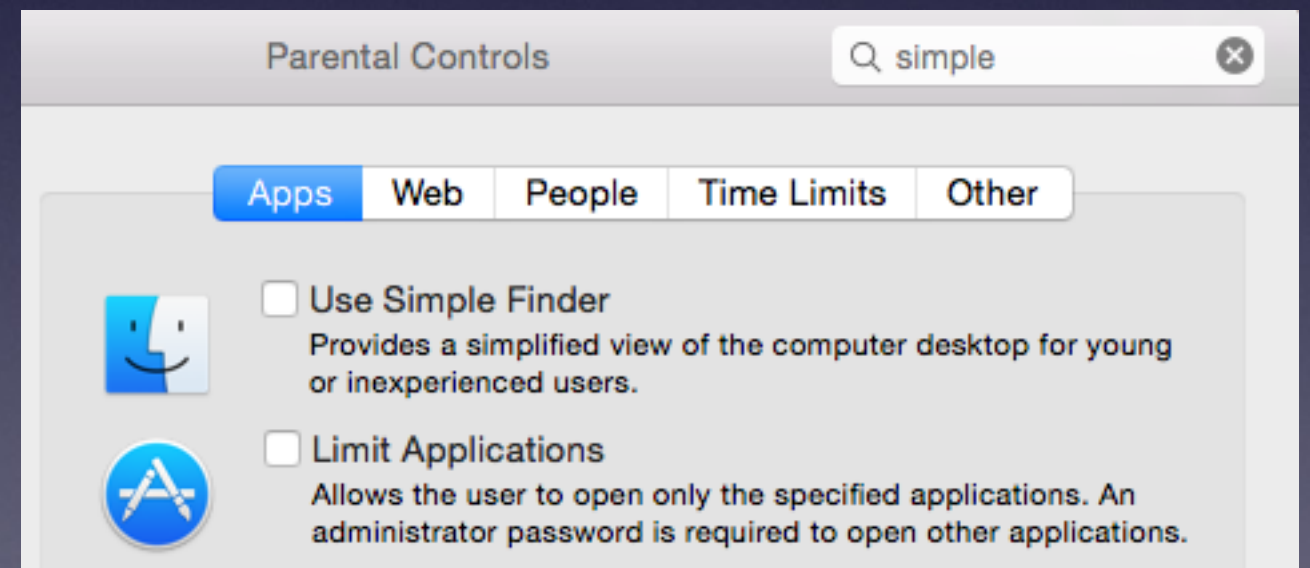
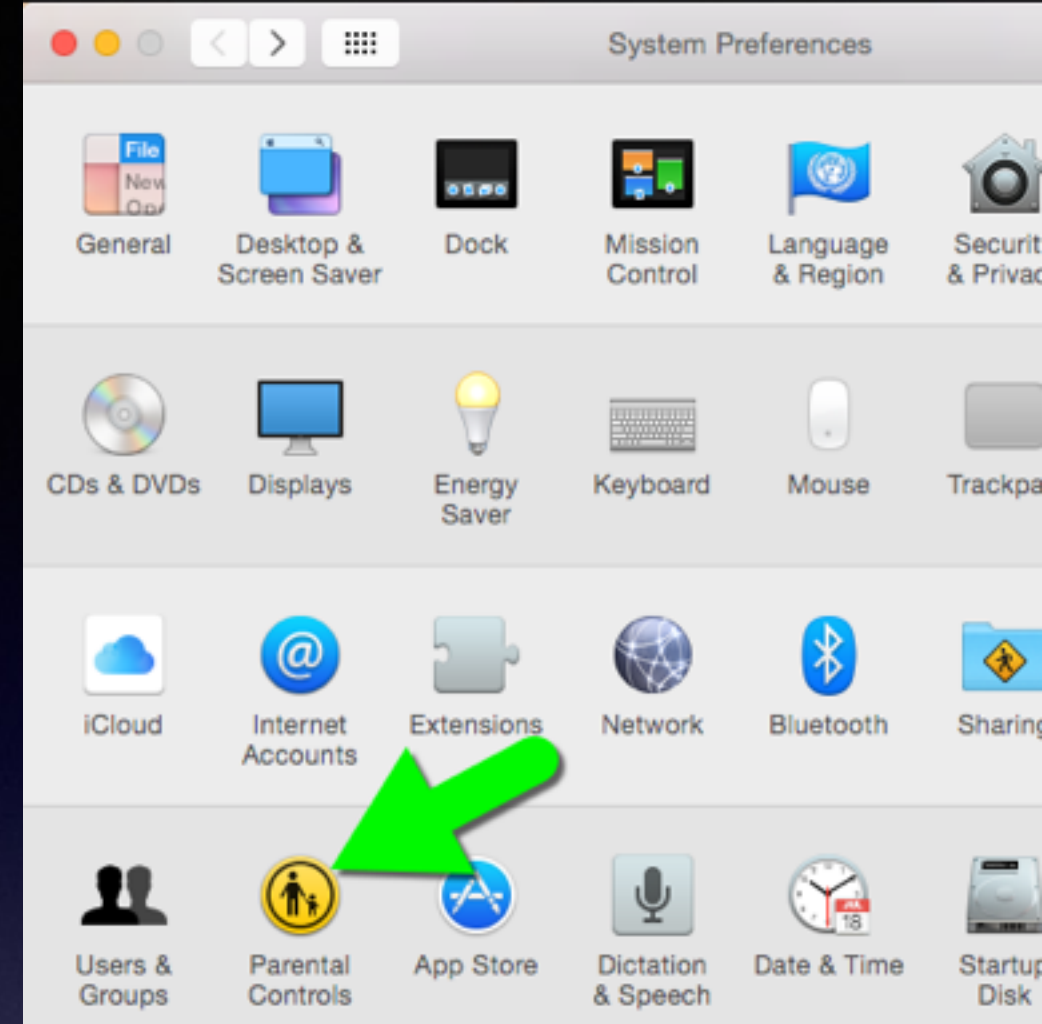
Learning and Literacy



Learning and
Literacy

Simple Finder

- Reduces the Dock to just three folders.
- Limit the list of apps a student can open to only the ones you choose, so students can stay focused.
- Files, folders, and apps are displayed in a single window of neatly arranged icons so everything is easier to find.

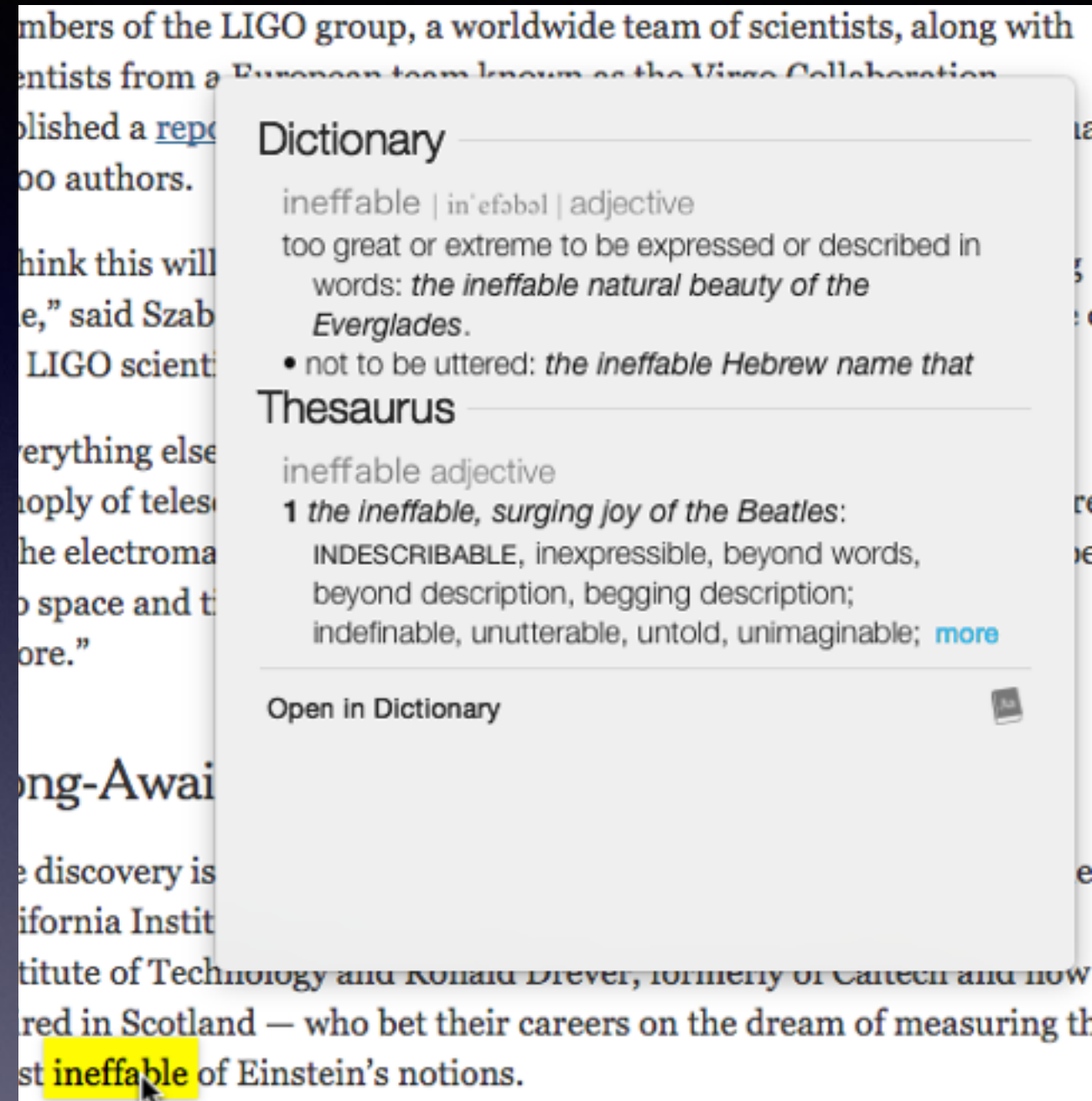


Dictionary

- Quick access to definitions and synonyms that help with grammar, spelling, and pronunciation.

Two Ways:

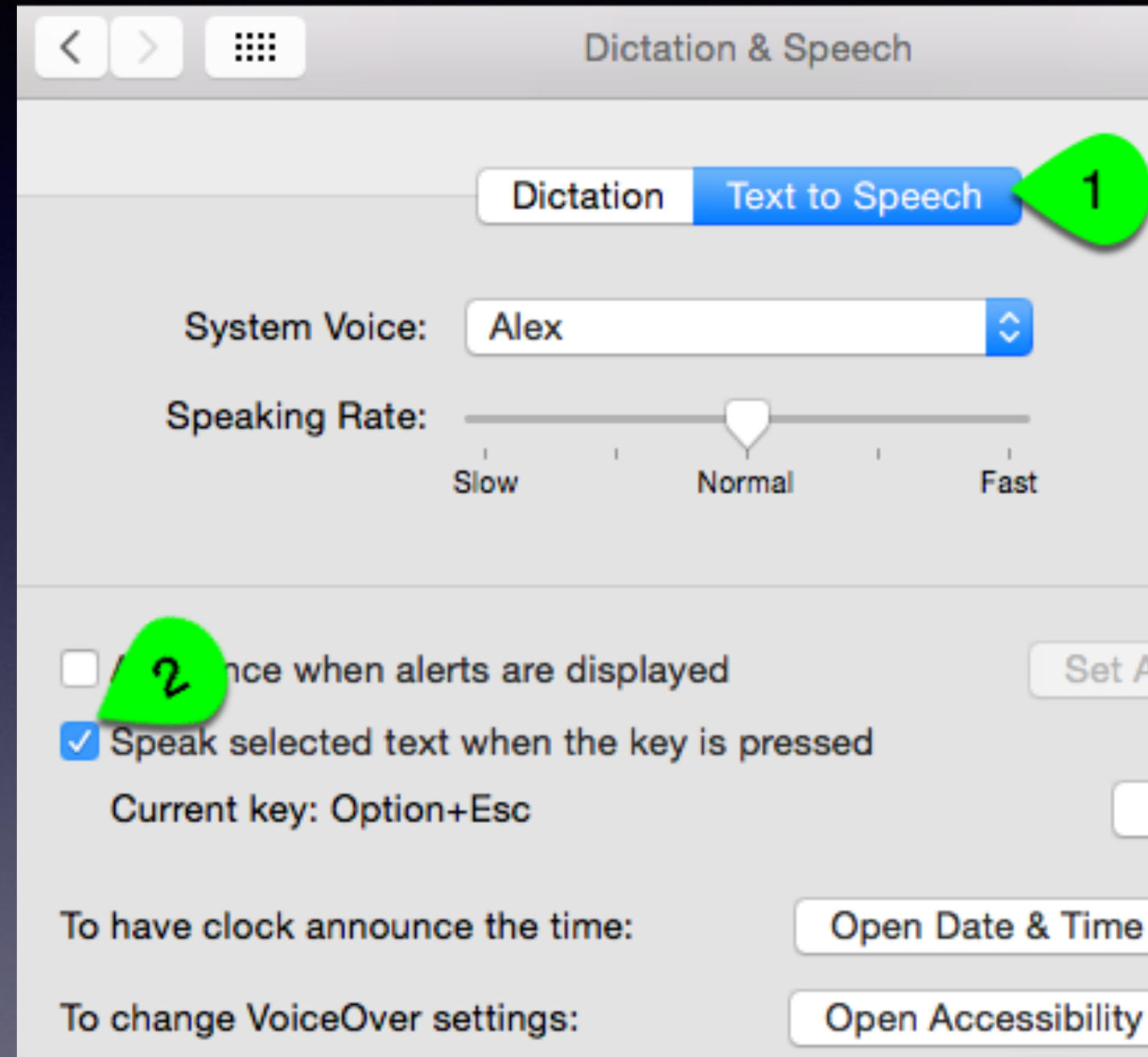
- Two-Finger Click on a word and select “Look Up Word.”
- Three-Finger Tap on a word.



Text to Speech



- Highlight any text, and Alex will read it aloud.
- Choose from other male or female voices.
- Adjust the speaking rate.
- Choose from over 70 voices spanning 42 languages.



Word Completion

- Help with vocabulary and word-building skills.
 - Available in apps such as TextEdit and Pages.
1. Type a few letters, press the Escape key and OS X suggests words.
 2. Select the word you want, and OS X completes it for you.

I love word completion

complete
completely
completed
complaining
compliments
complaints
complicated
complicating
completing
compliment
complex
complain
complimentary
completion
complained
complications
complexity
complains
compliance
complaint

About The Author

Nick LaFave is an Instructional Technology Specialist and former district teacher of the year from Clover, SC. Nick is an Apple Distinguished Educator, a National Board Certified Teacher, and also works as an Ed Tech consultant and speaker. Nick's professional development sessions strive to give teachers the confidence they need to help integrate technology into their curriculum.

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