

# **iPad Accessibility Booklet 2013**

## **iOS 6**

Navigating the iPad with VoiceOver and three refreshable braille displays:  
Refreshabraille 18, Focus 40 Blue Classic and the Apex as a display

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## **Overview**

### **About this booklet:**

1. This booklet is designed to help you access or teach others how to access the iPad if you are blind or visually impaired. It is broken into three components to help you quickly access the instructional information. The components are: table of contents, seven major parts with tasks to complete to learn the gestures and commands and an appendix for quick reference to the gestures and commands.
2. Each of the six parts of this booklet will walk you through a series of tasks as you learn how to navigate web pages in Safari (web browser), read an eBook in iBooks and type using the Notes app with the on-screen keyboard or one of three refreshable braille displays.
3. This booklet is divided into 7 parts and 2 appendices:

Part 1: iPad & Mainstream Access

Part 2: iPad & VoiceOver Access

Part 3: iPad & Zoom Access

Part 4: iPad & Refreshabraille-18 braille display

Part 5: iPad & Focus 40 Blue Classic braille display

Part 6: iPad & Braille Note Apex as a braille display

Part 7: iPad & Other Accessibility Features (Large Text, Inverted Colors, and Guided Access)

Appendix A: Quick reference of VoiceOver gestures and braille display commands

Appendix B: Quick reference table of VoiceOver gestures and braille display commands

### **What is the iPad?**

1. It's a tablet computer designed, developed and marketed by Apple.
2. It serves primarily as a platform for audio-visual media including books, periodicals, movies, music, games, presentations and web content.
3. It's available in black or white.
4. The iPad 2 and iPad 3 have a lithium-ion rechargeable battery that lasts up to 10 hours.
5. This booklet was developed using iOS 6.1.

### **How do you navigate the iPad?**

1. Whether you are blind, have low vision, or are fully sighted, you will use what Apple calls gestures to navigate the iPad (iPhone & iPod Touch).
2. You use gestures to get the iPad to do something.

### **How do the blind and visually impaired access the iPad?**

1. There are several accessibility features that give access to those with visual impairments, such as VoiceOver, Zoom, Large Text, Invert Colors and VoiceOver with a braille display. With iOS 6 you can now enable VoiceOver and Zoom at the same time. Note: running VoiceOver and Zoom at the same time will change some gestures. These gestures will be noted when necessary.
  - a. VoiceOver: If you are blind or have very limited vision you will want to use VoiceOver, which is the screen reader for the iPad, iPhone and the iPod Touch.
  - b. Zoom: If you have low vision you may want to use Zoom, which is the screen magnifier that magnifies the entire screen.
  - c. VoiceOver with a Bluetooth Braille Display: If you are a braille user, you can connect a refreshable braille display via a Bluetooth connection. Now you have VoiceOver and the braille display to navigate the iPad, iPhone or iPod Touch.

## **PART 1: IPAD AND THE MAINSTREAM APPROACH**

### **SECTION 1.1: Physical Controls**

Note: All instructions, unless otherwise directed, will assume that the iPad is positioned in the landscape orientation position with the (Home) button to the right.

1. To turn on the iPad from shutdown:
  - a. Press & hold the (Sleep/Wake) button for 3-5 seconds.
  - b. Slide right the (Slide to Unlock) button.
2. To shut down the iPad:
  - a. Wake up iPad if asleep; press & release the (Home) button.
  - b. Press & hold the (Sleep/Wake) button for 3-5 seconds.
  - c. Press & release the (Slide to Power off) button.
3. Lock the iPad by putting it to sleep:
  - a. Turn on the iPad, then press & release the (Sleep/Wake) button.
4. Unlock iPad from sleep:
  - a. After a few seconds the iPad goes to sleep. To wake it up, press and release the (Home) or (Sleep/Wake) button.
5. Locate the following physical controls:
  - a. Side Switch located on back edge, left corner, the edge that is away from your body.
  - b. Volume control located right of the (Side Switch) on back edge.
  - c. Head Phone Jack located on left edge, corner closest to your body.
  - d. FaceTime Camera located on left border of screen, opposite the (Home) button.
  - e. iSight Camera located on the underneath side, next to the (Sleep/Wake) button.
  - f. Dock Connector located on right edge, underneath the (Home) button.
6. Use the (Side Switch) to lock screen "rotation" or "mute" the sound:
  - a. During training or used by students it is beneficial to have the (Side Switch) set to "Lock Rotation" in Settings. This will provide a quick way to lock the screen rotation to keep the screen from unintentional rotation.
  - b. You can change the setting of the (Side Switch) to between "Lock Rotation" and "Mute" by going to (Settings > General > Use Side Switch To, then check one of the two items).
  - c. Locking and unlocking the screen rotation:
    - i. Slide the (Side Switch) to the left to unlock the screen rotation.
    - ii. Raise the iPad in the vertical position with its edge on table surface.
    - iii. Rotate the iPad so the edge with the (Home) button is touching the table surface. You will notice that the screen rotated right-side up.
    - iv. Again, unlock and rotate iPad back in the landscape orientation position with the (Home) button to the right and use the (Side Switch) to lock the screen rotation.

## **SECTION 1.2: Navigating the Home Screen – Rearranging Apps – Folders**

### **Task 1: Moving between Search & Home Screen Pages**

1. Move to the Search Screen; (1-Finger\_SWIPE RIGHT).
2. Move back to page 1 and on to page 2 of the “Home” screen (1-Finger\_SWIPE LEFT).
  - a. Note: the number of Home screen pages will depend on number of icons you have for apps and folders.
3. Move back to page 1 of the “Home” screen; (1-Finger\_SWIPE RIGHT).

### **Task 2: Rearranging the App icons on the Home Screen**

1. Rearranging the App & Folder Icons on the “Home” screen (1-Finger\_TOUCH & DRAG):
  - a. Go to the “Home” Screen; press (Home) button.
  - b. Place the “Home” Screen Apps into “Jiggle” mode:
    - i. Pick an app icon from the first row and (1-Finger\_TOUCH & HOLD) the app, don’t lift your finger up.
    - c. With the finger still touching the screen, drag the app down to the second row of icons and lift your finger.
    - d. While the icons are in the “Jiggle” mode, move another app to another location, using the (1-Finger\_TOUCH & DRAG) gesture.
    - e. Now, disable “Jiggle” mode by pressing the (Home) button once.

### **Task 3: Creating Folders**

1. Creating folders on the “Home” screen (1-Finger\_TOUCH & DRAG):
  - a. Go to the “Home” Screen; press (Home) button.
  - b. Place the Home Screen icons into “Jiggle” mode:
    - i. Choose an app icon and (1-Finger\_TOUCH & HOLD) the app.
    - c. Now pick two apps that you want together in the same folder and drag one of the apps onto the other app and lift finger (1-Finger\_TOUCH & DRAG).
    - d. The iPad will automatically create a folder and give a folder name based on the type of apps. You can keep the folder name or rename it. To rename the folder, do the following:
      - i. Select the edit bar with the folder name to bring up the on-screen keyboard; press (1-Finger\_TOUCH).
      - ii. Clear the existing folder name by touching the X at the end of the edit bar and type your new folder name.
      - iii. Then press the “Done” key on the keyboard.
2. Close the folder and take the iPad out of “Jiggle” mode; press twice the (Home) button.

## SECTION 1.3: Surfing the Internet with Safari

**Note:** During this section you will learn how to use several gestures to open Safari (the web browser), go to a website, navigate web pages, and zoom in & out.

### Task 1: Launch Safari

1. Selecting an Item (1-Finger\_TOUCH):
  - a. On the Home Screen, find the “Safari” app and launch it (1-Finger\_TOUCH).

### Task 2: Launch the website, “www.animalfactguide.com” & web page, “Animal Facts”

1. Launch “www.animalfactguide.com”: (Note: typing www is not necessary)
  - a. Move to “Address Bar” (1-Finger\_TOUCH).
  - b. Select the “Clear Text” button (1-Finger\_TOUCH).
  - i. Note: This step may not be necessary unless you have already typed text and want to clear it.
  - c. Touch keys to type “animalfactguide.com” (1-Finger\_TOUCH).
  - d. Select the “Go” button (1-Finger\_TOUCH).
2. Select the “Animal Facts” link at the top of page (1-Finger\_TOUCH).

### Task 3: Scrolling the web page

1. Scrolling the page (1-Finger\_SWIPE):
  - a. Scroll down the page to find the different animals (1 Finger\_SWIPE UP).
  - b. Scroll up the page to find “Atlantic Puffin” (1-Finger\_SWIPE DOWN).
  - c. Now, select the “Atlantic Puffin” link (1-Finger\_TOUCH).
  - d. On the Toolbar, top-left, select the “Back” button (1-Finger\_TOUCH).
  - e. Now, find and select the “Bald Eagle” link (1-Finger\_TOUCH).
  - f. Again, select the “Back” button to the “Animal Facts” page (1-Finger\_TOUCH).

### Task 4: Creating web page “Tabs”

1. Create a new web page Tab:
  - a. On the web page, (1-Finger\_TOUCH & HOLD) on the “African Elephant” link to bring up its “Pop-up Menu”.
  - b. Select “Open in New Tab” to create a New Tab for the African Elephant; (1-Finger\_TOUCH). Now you should have two Tabs at the top of the web page, just below the Address Bar.
  - c. Now, touch each Tab to switch between the “Animal Facts” web page and the “African Elephant” web page (1-Finger\_TOUCH).
  - d. Lastly, select the “Animal Facts” Tab to switch to that web page.

### Task 5: Defining “Words” on the web page

1. Define word “Animal” on the web page:
  - a. From the previous task you should be on the “Animal Facts” web page.
  - b. At the top of the web page find the title “Animal Facts”.
  - c. Bring up the “Pop-up” menu for the word “Animal” (1-Finger\_TOUCH & HOLD) on the word “Animals” and then lift your finger. This will bring up a menu with two items: Copy and Define.
  - d. Select “Define” (1-Finger\_TOUCH).
  - e. Scroll down the pop-up menu to read definition (1-Finger\_SWIPE UP).
  - f. Close the “Pop-up” (1-Finger\_TOUCH) outside the “Pop-up”.

### **Task 6: Mainstream Zooming in & out**

**Note:** During this task you will use the “Pinch” gesture to zoom in & out. This gesture works with pictures, web pages, mail & maps. This doesn’t replace the Zoom accessibility feature.

1. Zoom IN on the web page (2-Finger\_PINCH): Place your thumb and index finger together on the screen and then slide them apart. Now pan vertically & horizontally (1-Finger\_SWIPE)
2. Zoom OUT on the web page (2-Finger\_PINCH): Place your thumb and index finger apart on the screen and then slide them together.

## **SECTION 1.4: Multitasking Gestures**

**Note:** This section shows you how to use Multitasking Gestures to go to the “Home” screen, reveal the Multitasking Bar and switch between apps. To turn this option ON go to Settings > General > and select the On/Off button.

### **Task 1: Going to the “Home” screen**

1. Launch “Safari” (1-Finger\_TOUCH).
2. Use the “Multitasking Gesture” to go to the “Home” screen (4/5-Finger\_PINCH): Place 4 or 5 fingers on the screen and slide the fingertips together.

Note: you can also press the (Home) button to go to the “Home” screen.

### **Task 2: Reveal the “Multitasking Bar”**

**Note:** The “Multitasking Bar” appears at the bottom of the screen and displays the recently opened apps, apps not fully closed.

1. Let’s launch a few apps. Launch “Settings” then use the Multitasking Gesture to go to the “Home” screen. Repeat the steps to launch “Safari” and go back to the “Home” screen.
2. Now, use the “Multitasking Gesture” to reveal “Multitasking Bar” (4/5-Finger\_SWIPE UP). Notice at the bottom of the screen a row of apps.
3. Next, close the “Multitasking Bar” (4/5-Finger\_SWIPE DOWN).
4. Again, use the “Multitasking Gesture” to reveal “Multitasking Bar” (4/5-Finger\_SWIPE UP).
5. Scroll through the recently opened apps (1-Finger\_SWIPE LEFT or RIGHT).
6. From the row of apps, launch “Safari” (1-Finger\_TOUCH).

**Notes:** You can also reveal the “Multitasking Bar” by pressing the (Home) button twice, quickly. Press once to close the “Multitasking Bar”.

### **Task 3: Switch to Between Apps:**

Note: If you have an app open you can use the “Multitasking Bar” to switch between other apps you have recently opened.

1. Launch Safari if not already open.
2. Switch to the Next open app (4/5-Finger\_SWIPE LEFT).
3. Switch to the Previous open app (4/5-Finger\_SWIPE RIGHT).



## SECTION 1.5: iBooks (reading a book)

**Note:** During this section you will learn how to navigate a book in iBooks. iBooks is a free app that you must download from the App Store. You can download books to iBooks using the “Store” button in iBooks. Also, you can download ePub, PDF and iBook files to your computer and sync them to your iPad. Although you can read books in portrait or landscape orientation, some books only allow you to adjust the font size when it’s in the portrait orientation so we will use portrait orientation for these tasks.

### Task 1: Set the iPad to the Portrait Orientation

1. Slide the (Side Switch) to the left to unlock it.
2. Tilt the iPad up on its edge and rotate it so the (Home) button is at the bottom.
3. Slide the (Side Switch) back down to relock the rotation, and then lay the iPad back on the table.

### Task 2: Launch the "iBooks" app

**Note:** The iBooks library has two main views, “Group View” (bookshelf look) and “List View”. Both views have five buttons across the top on the toolbar; they are: Store, Collections, Group View, List View and Edit. The “Store” button takes you to the Internet to search for books to download. The “Collections” button allows you to switch between your collections of books, purchased books, PDF files, etc. The Group View and List View buttons allow you two ways to arrange the books. The Group View has the books standing up on shelves, showing their covers. In the List View the books are in one vertical list and you have four additional buttons across the bottom of the screen. They are: Bookshelf, Titles, Authors and Categories. Selecting the Edit button allows you to move or delete books.

1. Go to the “Home” screen, press the (Home) button.
2. Select the “Home” screen page with the iBooks app (1-Finger\_FLICK LEFT or RIGHT).
3. Select & Activate the iBooks app (1-Finger\_TAP).
4. Open the iBooks “Library”, if not open already, by using (1-Finger\_TAP) on the “Library” button located at the top-left corner of screen on the toolbar. You may have to tap the screen once to reveal the toolbar. If it is already open you will not see the “Library” button.

### Task 3: Launch a Book in iBooks

1. Select & open the book, “iPad User Guide” (1-Finger\_TOUCH). If the Guide isn’t in iBooks, select the “Store” button and download the app. It’s free!

**Note:** Once you have launched the “iPad User Guide” you will notice a Toolbar running across the top of the screen with six buttons. They are the Library, Table of Contents, Appearance, Search and Add/Remove Bookmark buttons. Other books may have two additional buttons, Audio and Brightness.

- The “Library” button takes you back to the library with your books.
- The “Table of Contents” button takes you to the Table of Contents with tabs for Contents, Bookmarks and Notes.
- The “Appearance” button gives you some adjustment options such as brightness, font size, font type, color contrast and page format.
- The “Search” button allows you to search for text within the book.
- The “Add/Remove Bookmark” button allows you to add or remove bookmarks within the book.

#### **Task 4: Open "Table of Contents" to select "Accessibility"**

1. Select book's "Table of Contents" button (1-Finger\_TOUCH).
2. Scroll down the Table of Content list (1-Finger\_SWIPE UP).
3. Select "Accessibility" (1-Finger\_TOUCH).

#### **Task 5: Turning the Book Pages**

1. Turn Pages Slowly:
  - a. Turn to the next page slowly, from page's right edge (1-Finger\_TOUCH & DRAG LEFT).
  - b. Turn to the previous page slowly, from page's left edge (1-Finger\_TOUCH & DRAG RIGHT).
2. Turn Pages Quickly:
  - a. Turn to the next page; on right edge (1-Finger\_TOUCH).
  - b. Turn to the previous page; on left edge (1-Finger\_TOUCH).

#### **Task 6: Working with Bookmarks**

**Note:** You don't have to set a bookmark when you close the book to keep your place; iBooks will remember your page and return you to it when you re-open the book. Setting bookmarks is nice when you want to mark numerous pages of book.

1. Adding Bookmarks:
  - a. Make sure the iPad User Guide is open.
  - b. Add a Bookmark at your current page (1-Finger\_TOUCH) on the Toolbar, top-right corner.
  - c. Turn the pages three or four times (1-Finger\_SWIPE LEFT) repeatedly.
  - d. Add another Bookmark (1-Finger\_TOUCH) on the Toolbar, top-right corner.
  - e. Repeat steps and add 2 or 3 more Bookmarks.
2. Navigating Your Bookmarks:
  - a. Select the "Table of Contents" button on the Toolbar (1-Finger\_TOUCH).
  - b. Select the "Bookmarks" tab (1-Finger\_TOUCH).
  - c. Select one of your "Bookmarks" (1-Finger\_TOUCH).
3. Remove a Bookmark:
  - a. Select the "Remove Bookmark" button (red ribbon) at the top-right corner of Toolbar (1-Finger\_TOUCH).
  - b. Again, select the "Table of Contents" button on the Toolbar (1-Finger\_TOUCH).
  - c. Again, select the "Bookmarks" tab (1-Finger\_TOUCH).
  - d. Select one of the remaining Bookmarks (1-Finger\_TOUCH).
  - e. Repeat the process to remove all your Bookmarks.
  - f. When finished, move back to the "Home" screen; press (Home) button or use the "Multitasking Gesture" (4/5-Finger\_PINCH).

## **SECTION 1.6: Typing with the “Notes” App**

**Note:** The Notes app allows you to type notes using the on-screen or wireless Bluetooth keyboard. When you work in Notes in Landscape orientation you have two panes, a narrow pane to the left with a list of previously created notes and a wider pane with the page for your text. In Portrait orientation you have one pane which is your text page. To access your list of previous notes, you must activate the “Notes” button.

With an iCloud account you can sync your notes with your other iDevices and computer. Notes can be emailed, as well.

### **Task 1: Launch "Notes"**

1. For tasks 1 and 2 make sure you have the iPad in Landscape orientation.
2. To launch “Notes”, first go to the “Home” screen; press (Home) button.
3. Select & Activate the Notes app (1-Finger\_TOUCH).

### **Task 2: Create two Notes and Type Sentences**

1. Create note 1: select the “Add a Note” button (1-Finger\_TOUCH).  
**Note:** If the “Add a Note” button is grayed out/not available, you are in a new note.
  - a. Use keys on the keyboard to type “The sky is blue.” (1-Finger\_TOUCH).
  - b. Select the “Keyboard” key to close the keyboard (1-Finger\_TOUCH).
2. Create note 2: select the “Add a Note” button (1-Finger\_TOUCH).  
**Note:** If the “Add a Note” button is grayed out/not available, you are in a new note.
  - a. Use keys on the keyboard to type, “The grass is green.”; (1-Finger\_TOUCH).
  - b. Select the “Keyboard” key to close the keyboard (1-Finger\_TOUCH).

### **Task 3: Switch between notes**

1. In Landscape orientation, select one of the notes in the left pane (1-Finger\_TOUCH).
2. In Portrait orientation, select “Notes” button & one of the notes in list (1-Finger\_TOUCH).

### **Task 4: Delete notes**

1. Select the “Delete” icon (1-Finger\_TOUCH).
2. Select the “Delete Note” button (1-Finger\_TOUCH).

## PART 2: IPAD WITH VOICEOVER

### Before We Get Started

#### Introduction:

1. VoiceOver is an accessibility feature that announces what appears on the screen. VoiceOver navigation is different than mainstream navigation. VoiceOver gestures require 1 to 4 fingers doing a series of tapping, flicking, sliding and dragging movements. This feature is available out of the box; there aren't any drivers or software programs to install. Go to Settings to turn VoiceOver on.
2. When you select an element/item on the iPad, a "Black Rectangle," which is called the "VoiceOver Cursor," encircles it and VoiceOver speaks the text and gives you necessary navigation and/or orientation information. This information could be an app icon on the "Home" screen, page of text in a book, a paragraph on a web page, etc.
3. With iOS 6 you can now use VoiceOver and Zoom together. There are a few VoiceOver gestures, as well as typing methods that change when running both VoiceOver and Zoom together. These changes will be noted when necessary.

#### Initial VoiceOver Setup:

1. Launch VoiceOver initially:

**Note:** The steps to initially turn on VoiceOver will need to be conducted by someone with vision.

- a. Turn on the iPad.
- b. Select the "Settings" icon from the "Home" screen.
- c. On the left pane, select and open the "General" menu.
- d. On the right pane, select and open the "Accessibility" menu.
- e. On the right pane, select and open the "VoiceOver" menu.
- f. On the right pane, select the Off/On button to turn on VoiceOver.

2. The "Triple-click Home" feature:

**Note:** The "Triple-click Home" feature gives you an easy way to cycle between two or more accessibility features by pressing the (Home) button three times quickly. If you have more than one feature checked, then you will get a pop-up menu with your selected features. The accessibility features are VoiceOver, Zoom, Invert Colors, and Assistive Touch. The following items show you how to make settings configurations for three situations.

#### **a. Triple-click Home configuration 1 (VoiceOver only):**

**Note:** This Settings configuration allows any user (blind or sighted) to quickly turn OFF or ON VoiceOver using the (Home) button. This works well in a classroom where VoiceOver is not always required. To use the other accessibility features, such as Zoom, you will have to go to Settings and enable them. The steps to setting up this configuration are:

- i. Launch the "Settings" app from the "Home" screen.
- ii. On the left pane, select and open the "General" menu.
- iii. On the right pane, select and open the "Accessibility" menu.
- iv. On the right pane, select and open "Triple-click Home" menu, then select "VoiceOver" and uncheck all other accessibility features.
- v. Practice: press the (Home) button 3 times quickly to turn ON and OFF VoiceOver.

## **b. Triple-click Home configuration 2 (Triple-click Home – VoiceOver only) and (Zoom checked in Settings):**

**Note:** This Settings configuration allows the visually impaired user needing VoiceOver and/or Zoom (Accessibility Zoom) to quickly turn on or off these features, while at the same time allowing the blind user to turn on and off VoiceOver. If we added the Zoom to the Triple-click Home option, the blind user would have difficulty turning on VoiceOver from the Triple-click Home pop-up menu. This is the menu that pops up after you press the (Home) button three times. The steps to setting up this configuration are:

- i. Launch the “Settings” app from the “Home” screen.
- ii. On the left pane, select and open the “General” menu.
- iii. On the right pane, select and open the “Accessibility” menu.
- iv. On the right pane, select and open “Triple-click Home” menu, then select “VoiceOver”.
- v. At the top, select the “Accessibility” button to take you back to the previous page.
- vi. Select and open the “Zoom” menu. Enable Zoom by setting the On/Off button to ON.
- vii. Practice the configuration:
  1. Press the (Home) button 3 times quickly to turn VoiceOver ON. Again, press the (Home) button 3 times quickly to turn OFF VoiceOver. With VoiceOver off, use the Accessibility Zoom gesture (3-Finger\_DOUBLE TAP & SLIDE UP) to zoom in.
  2. Repeat item 1 to turn VoiceOver ON. Now both Zoom & VoiceOver are on.
  3. Use the gesture (3-Finger\_DOUBLE TAP & SLIDE DOWN) to zoom out.
  4. Press the (Home) button 3 times quickly to turn VoiceOver OFF.

## **c. Triple-click Home configuration 3 (VoiceOver – Zoom – Invert Colors):**

**Note:** This Settings configuration allows the fully sighted and visually impaired user to quickly select one or more of the 4 accessibility features using the (Home) button. When the (Home) button is pressed 3 times a menu will pop up with the selected accessibility features. This configuration DOES NOT give the BLIND speech to turn on VoiceOver. It works well with visually impaired users. The settings configuration steps are:

- i. Launch the “Settings” app from the “Home” screen.
- ii. On the left pane, select and open the “General” menu.
- iii. On the right pane, select and open the “Accessibility” menu.
- iv. On the right pane, select and open “Triple-click Home” menu and then select the VoiceOver, Invert Colors and Zoom features.
- v. Practice the configuration:
  1. Press the (Home) button 3 times quickly to bring up the menu. Select the “Invert Colors” button.
  2. Again, press the (Home) button 3 times quickly to bring up the menu. Select the “Zoom” button.
  3. Press the (Home) button 3 times quickly to bring up the menu again. Select the “VoiceOver” button; you may have to use the (3-finger\_SLIDE) to find the menu.
  4. Now you have all 3 accessibility features enabled.
  5. Press the (Home) button 3 times quickly to bring up the menu. Select and activate “Invert Colors” button then with one finger double tap to uncheck the button.
  6. Press the (Home) button 3 times quickly to bring up the menu and uncheck the remaining accessibility features, leaving VoiceOver for last.

## SECTION 2.1: Physical Controls

**Note:** All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface. Use the Triple-click Home configuration 1 to turn only VoiceOver on (refer to page 14, item 2-a).

Do the following to locate the external controls and learn how to turn on and off the iPad.

1. The iPad has a 7/8" (2 cm) border that is either white or black and does not respond to touch.
2. To turn on the iPad from shutdown:
  - a. Locate, press & hold the (Sleep/Wake) button for 5 seconds, then release. It's located on left edge, back corner. Wait until VoiceOver makes an announcement, then select the (Slide to Unlock) button.
3. To shut down the iPad:
  - a. Wake up iPad if asleep; press & release the (Home) button.
  - b. Press & hold the (Sleep/Wake) button until VoiceOver says, (Slide to Power off); then release button.
  - c. Activate the selected button (1-Finger\_DOUBLE TAP) on screen.
4. Lock the iPad by putting it to sleep:
  - a. Turn on the iPad. Then press & release the (Sleep/Wake) button.
5. Unlock iPad from sleep:
  - a. After a few seconds the iPad goes to sleep. To wake it up, press and release the (Home) or (Sleep/Wake) button.
6. Locate the following physical controls:
  - a. Side Switch located on back edge, left corner, the edge that is away from your body.
  - b. Volume control located to the right of the (Side Switch) on back edge.
  - c. Head Phone Jack located on left edge, corner closest to your body.
  - d. FaceTime Camera located on left border of screen, opposite the (Home) button.
  - e. iSight Camera located on the underneath side, next to the (Sleep/Wake) button.
  - f. Dock Connector located on right edge, underneath the (Home) button.
7. Use the (Side Switch) to lock screen rotation or mute the sound:
  - a. During training or use by students, it is beneficial to have the (Side Switch) set to "Lock Rotation" in Settings. This quickly locks the rotation to prevent unintentional rotation.
  - b. You can change the setting of the (Side Switch) from "Lock Rotation" to "Mute" by going to (Settings > General > Use Side Switch To, then check one of the two items.
  - c. Locking and unlocking the screen rotation:
    - i. Slide the (Side Switch) to the left to unlock the screen rotation.
    - ii. Raise the iPad in the vertical position with its edge on table surface.
    - iii. Rotate the iPad so the edge with the (Home) button is touching the table surface. You will notice that the screen rotated right-side up.
    - iv. Again, rotate the iPad back in the landscape orientation position with the (Home) button to the right and use the (Side Switch) to lock the screen rotation.

## SECTION 2.2: Rotor – Speech – Home Screen – Rearranging Apps – Folders

**Note:** All instructions, unless otherwise directed, will assume that the iPad is positioned in landscape orientation with the (Home) button to the right and iPad laying on a flat surface.

### Task 1: Turning on iPad and going to the "Home" screen

Note: There are two methods to select different items: (1-Finger\_TAP & SLIDE) and (1-Finger\_Flick Right or Left). With method one, tapping (touching) the screen selects what's under your finger; then sliding your finger in a grid pattern allows you to select items in any direction. With method two, flicking one finger right or left anywhere on the screen moves your focus to the next or previous item; the finger must be in motion as it touches the screen or it will redirect the focus to your fingertip.

1. As before, from the shut-down, power on the iPad, press & hold the (Sleep/Wake) button.
2. Unlock screen and go to the "Home" screen:
  - a. Method 1: (1-Finger\_TAP & SLIDE)
    - i. Tap and slide one finger on the screen up from the front-center edge until you hear the "Slide to Unlock" button announced (1-Finger\_TAP & SLIDE UP).
    - ii. Activate the button to unlock and place focus on the "Home" screen (1-Finger\_DOUBLE TAP) anywhere on the screen.
  - b. Method 2: (1-Finger\_FLICK)
    - i. Select the "Slide to Unlock" button (1-Finger\_FLICK RIGHT or LEFT) until the "Slide to Unlock" button is announced.
    - ii. Activate "Slide to Unlock" button to unlock screen (1-Finger\_DOUBLE TAP).

### Task 2: Navigating "Settings"

**Note:** During this task you will learn how to navigate Settings, which lets you make changes to the iPad, accessibility options and many of its apps. The Settings page has two panes. The title of the left pane is Settings and the width of the pane is about two inches. The left pane has the menu list of Settings topics. The title of the right pane depends on what topic is selected from the left pane and takes up the remaining width of the screen. The right pane is a menu list relating to the selected topic.

1. Move to and launch Settings:
  - a. Move to the "Home" screen; press (Home) button.
  - b. Move to the Settings icon (1-Finger\_FLICK RIGHT or LEFT).
  - c. Activate the Settings icon (1-Finger\_DOUBLE TAP).
2. Navigate the Left Pane with the Settings topics:
  - a. Move down the list of topics (1-Finger\_TAP & SLIDE DOWN) in the left pane.
  - b. Scroll down to the next group of topics (3-Finger\_TAP & SLIDE UP) in the left pane.
  - c. Move down this group of topics (1-Finger\_TAP & SLIDE DOWN) in the left pane.
  - d. Again, scroll down the list of topics (3-Finger\_TAP & SLIDE UP) in the left pane.
  - e. Explore this group of topics in the left pane (1-Finger\_TAP & SLIDE DOWN).
  - f. Scroll up to the first group of topics (3-Finger\_TAP & SLIDE DOWN) repeatedly.
  - g. Using the flicking gesture, move down to the list to the next topic in the left pane to select General (1-Finger\_FLICK RIGHT).
  - h. Activate the General topic to review its menu items in the right pane (1-Finger\_DOUBLE TAP).

3. Navigate the Right Pane with the Menu items:

**Note:** The menu item displayed in the right pane relates to the General topic.

- a. Move down the menu list (1-Finger\_TAP & SLIDE DOWN) in the right pane.
  - b. Scroll down to the next group of items (3-Finger\_TAP & SLIDE UP) in the right pane.
  - c. Using the flicking gesture, move down the menu list in the right pane to select Accessibility (1-Finger\_FLICK RIGHT).
  - d. Activate to display the Accessibility menu items in the right pane (1-Finger\_DOUBLE TAP).
  - e. Again, move down the right pane's menu list to select "VoiceOver" (1-Finger\_FLICK RIGHT).
  - f. Activate to display the VoiceOver menu items in the right pane (1-Finger\_DOUBLE TAP).
  - g. Move down the right pane to discover the menu items (1-Finger\_FLICK RIGHT) or (1-Finger\_TAP & SLIDE DOWN).
4. Move back to the previous Settings page by placing two fingers on the screen and sliding them, quickly, to the right, left and back right again in a "z" pattern (2-Finger\_SCRUB).
  5. Again, move back to the previous Settings page using the (2-Finger\_SCRUB) gesture.
  6. Now, leave the Settings app and go to the "Home" screen, press the (Home) button.

### **Task 3: VoiceOver "Rotor"**

**Note:** The VoiceOver "Rotor" feature is a virtual control that mimics a physical dial. The "Rotor" gives you unique navigational options. These navigational options will depend on the screen focus and which items you have set to the "Rotor" in the Settings. During this task you will add and remove items from the "Rotor" to use when navigating.

1. Move to the "Rotor" option in Settings:

- a. Go to the "Home" screen, press (Home) button.
  - b. Move to the "Settings" app (1-Finger\_FLICK RIGHT or LEFT). Then Activate the app (1-Finger\_DOUBLE TAP).
  - c. "Settings" has two panes. The left pane has the list of setting topics and the right pane has the menu list of options for the selected topic. Move to and select "General" in the left pane (1-Finger\_SLIDE DOWN or UP). Activate and open the "General" menu (1-Finger\_DOUBLE TAP) anywhere on the screen.
  - d. Select the right pane (1-Finger\_TAP).
  - e. Move to "Accessibility" (1-Finger\_FLICK RIGHT) repeatedly. Activate and open the "Accessibility" menu (1-Finger\_DOUBLE TAP) anywhere on the screen.
  - f. Move to "VoiceOver" (1-Finger\_FLICK RIGHT) once or twice. Activate and open the "VoiceOver" menu (1-Finger\_DOUBLE TAP) anywhere on the screen.
  - g. Move to "Rotor" (1-Finger\_FLICK RIGHT) repeatedly. Activate and open the "Rotor" menu (1-Finger\_DOUBLE TAP) anywhere on the screen.
2. Adding and removing items from the "Rotor" list:
- a. Select "Rotor" heading at the top of the right pane (1-Finger\_TAP). This pane has the different "Rotor" items.
  - b. Move to "Speech Rate" (1-Finger\_FLICK RIGHT) repeatedly. Now, check this item (1-Finger\_DOUBLE TAP). A checkmark is added and VoiceOver says, "Selected". There's no announcement if an item isn't selected/checked.
  - c. Move to "Volume" (1-Finger\_FLICK RIGHT) repeatedly. Now, check this item (1-Finger\_DOUBLE TAP).
  - d. For the tasks in this booklet, make sure you have the following items checked: Speech Rate, Volume, Headings, Form Controls, Links, Characters, Words and Lines.

**Note:** You can repeat the process to uncheck/unselect any item that's checked/selected.



#### **Task 4: Speech Options**

1. Change the Speech Rate:
    - a. Make sure the “Speech Rate” and “Volume” items have been added to the Rotor. If not, go back and complete Task 2.
    - b. Access the “Rotor” and select “Speech Rate” (2-Finger\_ROTATE).
    - c. Increase or Decrease “Speech Rate” (1-Finger\_SWIPE UP or DOWN).
  2. Change the Volume:
    - a. Access the “Rotor” and select “Volume” (2-Finger\_ROTATE).
    - b. Increase or Decrease “Volume” (1-Finger\_SWIPE UP or DOWN).
  3. Pause and Resume Speech:
    - a. Pause Speech: While the VoiceOver is reading text (2-Finger\_TAP).
    - b. Resume Paused Speech: After pausing speech (2-Finger\_TAP) again.
  4. Turn Speech OFF, then back ON (3-Finger\_DOUBLE TAP).
- Note:** If VoiceOver is on and the Accessibility Zoom is enabled (3-Finger\_TRIPLE TAP).
5. Turn VoiceOver OFF then back ON, press (Home) button 3 times, quickly.

#### **Task 5: Two Methods of Navigating the App icons**

1. Use the following two methods to navigate the apps icons on the “Home” screen.
  - a. Method 1: (1-Finger\_TAP & SLIDE):
    - i. Go to the “Home” screen, press the (Home) button.
    - ii. Slide 1 finger back and forth on the screen in a grid pattern (1-Finger\_TAP & SLIDE).
  - b. Method 2: (1-Finger\_FLICK):
    - i. Go to the “Home” screen, press the (Home) button.
    - ii. Move forward to the next apps one at a time (1-Finger\_FLICK RIGHT) repeatedly.
    - iii. Move backwards one app at a time (1-Finger\_FLICK LEFT) repeatedly.

#### **Task 6: Move between Search & Home Screen Pages (3-Finger\_SWIPE):**

1. Move to the Search Screen (3-Finger\_SWIPE RIGHT).
2. Move back to Page 1 of the Home Screen (3-Finger\_SWIPE LEFT).
3. Move to Page 2 of the Home Screen (3-Finger\_SWIPE LEFT).
4. Move back to Page 1 of the Home Screen (3-Finger\_SWIPE RIGHT).

#### **Task 7: Rearrange App Icons on Home Screen**

1. Select an app icon to move to a different row and column (1-Finger\_FLICK RIGHT or LEFT).
2. Place all apps in “Jiggle” mode (1-Finger\_DOUBLE TAP & HOLD).
3. While still holding down the second tap, drag the app to a different row and column. Notice that “VoiceOver” announces the new row or column the app is in.
4. Exit the “Jiggle” mode; press the (Home) button.

#### **Task 8: Create New Folders on Home Screen**

1. Select an app icon to create a folder (1-Finger\_FLICK RIGHT or LEFT).
2. Place all apps in “Jiggle” mode (1-Finger\_DOUBLE TAP & HOLD).
3. While still holding down the second tap, drag the app onto another app icon and raise your finger. The folder is automatically created.

## SECTION 2.3: Surfing the Internet with Safari

**Notes:** During this section you will learn how to use several gestures to open Safari (web browser), go to websites, select links and navigate text and other elements.

### Task 1: Launch “Safari”

**Note:** During this task you will learn two methods to launch an app.

1. Method 1: (1-Finger\_TAP & SLIDE)
  - a. Tap and slide one finger across the screen in a grid pattern to select the “Safari” app icon (1-Finger\_TAP & SLIDE).
  - b. Activate and launch the selected “Safari” app (1-Finger\_DOUBLE TAP).
2. Method 2: (1-Finger\_FLICK)
  - a. Flick one finger to the right or left to select “Safari”; (1-Finger\_FLICK) right or left.
  - b. Activate and launch the selected “Safari” app (1-Finger\_DOUBLE TAP).

### Task 2: Launch the website "www.animalfactguide.com" & web page "Animal Facts"

**Note:** During this task you will learn to launch a website using three methods of typing: standard (select & double tap), standard (2 finger split-tap) and touch typing.

1. Move to and enter the “Address Bar”:
  - a. Method 1: (1-Finger\_Tap & Slide)
    - i. Locate top-center of screen and move down to “Address Bar” (1-Finger\_TAP & SLIDE DOWN).
    - ii. Enter the “Address Bar”; (1-Finger\_DOUBLE TAP).
    - iii. The on-screen keyboard will pop up and fill the lower half of the screen.
  - Note:** Sometimes after the double tap, VoiceOver will announce the (Back) button, disregard this and continue.
  - b. Method 2: (1-Finger\_Flick)
    - i. Move left back to the “Address Bar” (1-Finger\_FLICK LEFT), repeatedly.
    - ii. Enter the “Address Bar”; (1-Finger\_DOUBLE TAP).
    - iii. The on-screen keyboard will pop up and fill the lower half of the screen.
  - Note:** Sometimes after the double tap, VoiceOver will announce the (Back) button, disregard this and continue.

#### 2. Clearing the text in the “Address Bar”:

**Note:** Complete this step. Unless this step is completed, the Rotor doesn’t recognize the address bar as an edit field, which means you cannot change the Typing Mode options. For future reference if you have the Rotor set to the desired Typing Mode than clearing the text is not necessary. The Typing Mode options will be discussed in the next step.

- a. Move right to the “Clear Text” button (1-Finger\_FLICK RIGHT).
- b. Activate the “Clear Text” button (1-Finger\_DOUBLE TAP).
3. Type the Web Address “animalfactguide.com”:

**Note:** We are going to use 3 different methods of typing: standard (select & double tap), standard (2 finger split-tap) and touch typing.

  - a. Method 1: Standard typing (select & double tap)
    - i. Access the “Rotor” and change it to “Typing Mode” (2-Finger\_ROTATE).
    - ii. Select “Standard Typing” (1-Finger\_SWIPE UP or DOWN).
    - iii. Select the first letter of the address, which is “a” (1-Finger\_FLICK Right or Left) or (1-Finger\_TAP & SLIDE).
    - iv. Type the selected letter “a” (1-Finger\_DOUBLE TAP).
    - v. Repeat the previous two steps to type the letters, “n i m a l”
  - b. Method 2: Standard typing (2-Finger\_SPLIT TAP)

**Note:** We are continuing to type the address “animalfactguide.com”, using a different typing method.

- i. With the index finger tap and slide to the letter “f” key, then tap the screen with another finger to type the letter (2-Finger\_SPLIT-TAP).
- ii. Keep the index finger touching the screen and slide it to the letter “a”. Tap the screen with another finger to type the letter (2-Finger\_SPLIT-TAP).
- iii. Finish typing “fact”, by repeating the 2 finger split- tap method to type “c” and “t”.

c. Method 3: Touch Typing

**Note:** Use the third typing method to finish typing the address “animalfactguide.com”.

- i. Access the “Rotor” and change it to “Typing Mode” (2-Finger\_ROTATE).
- ii. Select “Touch Typing” (1-Finger\_SWIPE UP or DOWN).
- iii. With the index finger, tap and slide to the letter “g” and lift your finger to type the letter.  
**Note:** If it doesn’t type the letter you may have the Accessibility Zoom checked. To resolve this issue, (3-Finger\_DOUBLE TAP, HOLD & DRAG DOWN). This will zoom out to the normal view (no magnification). Now retry typing the “g” using the previous step.
- iv. Repeat the “Touch Typing” method to finish typing the letters “u i d e”, then the “.com” key.
- v. Move to and select the “Go” button on the keyboard (1-Finger\_DOUBLE TAP).

4. Select the “Animal Facts” link:

- a. Move to the “Animal Facts” link (1-Finger\_FLICK RIGHT).
- b. Activate link & launch web page (1-Finger\_DOUBLE TAP).

**Task 3: Scrolling the web page**

1. Scrolling (3-Finger\_SWIPE):
  - a. Scroll down to page 5 of 5 (3-Finger\_SWIPE UP).
  - b. Scroll up to page 1 of 5 (3-Finger\_SWIPE DOWN).

**Task 4: (2-Finger Scrub, Right & Left) to close Pop-ups or activate (Back) button**

**Note:** The gesture will dismiss an alert, pop-up or activate the (Back) button.

1. Dismissing the Bookmark drop-down menu:
  - a. Move to the “African elephant” link (1-Finger\_FLICK RIGHT) repeatedly.
  - b. Activate link & launch web page (1-Finger\_DOUBLE TAP).
  - c. Move to the “Bookmark” button (1-Finger\_FLICK LEFT) repeatedly.
  - d. Activate the “Bookmark” button and open drop-down menu (1-Finger\_DOUBLE TAP).
  - e. Close the “Bookmark” drop-down menu by placing two fingers on the screen and sliding them back and forth quickly, in a “z” pattern (2-Finger\_SCRUB).
2. Move back to the previous web page:
  - a. Activate the “Back” button by using the (2-Finger\_SCRUB) “z” pattern gesture. This will move you back to the previous web page.

### **Task 5: Accessing Popup Menus – Creating New Tabs – Canceling a Popup/list**

**Note:** Safari gives you the option to open web pages in Tabs. Tabs are an easy way to switch between desired web pages. The Tabs are located just below the Address bar. During this task you will create Tabs for two web pages and switch between them.

1. Access a Popup Menu and launch a web page in a New Tab:
  - a. Open the “American Bison” web page in a New Tab:
    - i. Move to, but do not activate the “American Bison” link (1-Finger\_FLICK RIGHT).
    - ii. Open this link’s “Popup Menu” (1-Finger\_DOUBLE TAP & HOLD).
    - iii. Move down menu & select the item “Open in New Tab” (1-Finger\_FLICK RIGHT).
    - iv. Activate the “Open in New Tab” item (1-Finger\_DOUBLE TAP).

**Note:** You are still on the same web page, but now you have a new Tab for the “American Bison” web page.

2. Now switch to the “American Bison” Tab:
  - a. Move to your new “American Bison” Tab (1-Finger\_FLICK LEFT) repeatedly, listening carefully for the web page, “American Bison..., Tab”; the word Tab is announced last.
  - b. Activate this Tab to go to the “American Bison” web page (1-Finger\_DOUBLE TAP).
3. Switch back to the “Animal Facts” Tab web page:
  - a. Move back to the “Animal Facts” web page by moving to the “Animal Facts” Tab (1-Finger\_FLICK LEFT) repeatedly, listening carefully for the web page, “Animal Facts..., Tab”; the word Tab is announced last.
  - b. Activate the Tab to go to the “Animal Facts” web page (1-Finger\_DOUBLE TAP).
4. Delete the “American Bison” Tab:
  - a. Move back to your new “American Bison” Tab (1-Finger\_FLICK LEFT).
  - b. Activate the Tab to go to the “American Bison” web page (1-Finger\_DOUBLE TAP).
  - c. Move to the “Close Tab” Button for the “American Bison” Tab (1-Finger\_FLICK LEFT).
  - d. Activate “Close Tab” Button for the “American Bison” Tab (1-Finger\_DOUBLE TAP).
5. Open and Cancel Popup menus:
  - a. Move to the “Fun Stuff” link just after the “Animal Facts” link (1-Finger\_FLICK RIGHT).
  - b. Open the link’s “Popup Menu” (1-Finger\_DOUBLE TAP & HOLD).
  - c. Cancel the menu “Popup” (2-Finger\_SCRUB).

### **Task 6: Use the "Rotor" to move by "Headings" – Reading Text**

**Note:** During this task you are going to set the “Rotor” to “Headings” and navigate a web page by “Headings”. Web pages have different types of elements, such as text, links, headings, form controls, etc. Choosing the most efficient element to navigate with, will help you find what you are looking for quicker. The “Rotor” is a virtual dial that makes it possible to choose which element to navigate.

1. If not already there, in Safari, go to [animalfactguide.com](http://animalfactguide.com) and move to and activate the “Animal Facts” web page; refer to Task 2, if needed.
2. Launch the “Bald Eagle” web page:
  - a. Move to the “Bald Eagle” link (1-Finger\_FLICK RIGHT).
  - b. Activate the link (1-Finger\_DOUBLE TAP).
3. Change the “Rotor” to “Headings”:
  - a. Change the “Rotor” to “Headings” by placing your Thumb and Index finger on the screen and rotating them as if you were turning a dial (2-Finger\_ROTATE) repeatedly.
  - b. As you change the “Rotor” to “Headings”, VoiceOver will announce the number of “Headings” on the web page.
4. Move down the page by “Headings” to the last “Heading” (1-Finger\_FLICK DOWN) repeatedly. You will hear a ping sound and VoiceOver will say, “Heading not found” when you get to the last “Heading”.

5. Move back up the page by “Headings” to “Conservation Status” (1-Finger\_FLICK UP) repeatedly.
6. Move to the information under the “Conservation Status” Heading (1-Finger\_FLICK RIGHT).
7. Continue up the page by “Headings” to “Bald Eagle” (1-Finger\_FLICK UP) repeatedly.
8. Move to the information under the “Bald Eagle” Heading (1-Finger\_FLICK RIGHT) twice.
9. Pause speech; (2-Finger\_TAP).
10. Resume speech and listen to the paragraph (2-Finger\_TAP).
11. Move to the next paragraph (1-Finger\_FLICK RIGHT).
12. Pause speech (2-Finger\_TAP).
13. Start reading from your position (2-Finger\_SWIPE DOWN).
14. Start reading from the top of the page (2-Finger\_SWIPE UP).

### **Task 7: Use the “Rotor” to move by "Links"**

**Note:** During this task you will go to a new website and navigate a webpage by Links. Links, when activated, moves you to a new webpage or location on the same page.

1. Make sure Safari is launched.
2. Now, go to bookshare.org website:
  - a. Move to the Address Bar using one of the following methods:
    - i. Method 1: Locate top-center of screen and slide down to “Address Bar” (1-Finger\_TAP & SLIDE DOWN) and then enter the “Address Bar” (1-Finger\_DOUBLE TAP). The on-screen keyboard will pop up and fill the lower half of the screen.
    - ii. Method 2: Move left back to the “Address Bar” (1-Finger\_FLICK LEFT), repeatedly. Then enter the “Address Bar” (1-Finger\_DOUBLE TAP). The on-screen keyboard will pop up and fill the lower half of the screen.

**Note:** Sometimes after the double tap, VoiceOver will announce the (Back) button, disregard this and continue.

- b. Type and go to bookshare.org using 1 of the following 3 typing methods; refer to Task 2, Item 3.

**Note:** The Typing Mode in the Rotor should still be set to Touch Typing (method 3).

- i. Method 1: Standard Typing (select & double tap).
- ii. Method 2: Standard Typing (split finger).
- iii. Method 3: Touch Typing.
3. Change “Rotor” to “Links” (2-Finger\_ROTATE RIGHT) repeatedly.
4. Move down the web page by “Links” to the “Facebook” link (1-Finger\_FLICK DOWN) repeatedly.
5. Move back up the web page by “Links” to the “Browse” link (1-Finger\_FLICK UP) repeatedly.
6. Activate the “Browse” link to launch this webpage (1-Finger\_DOUBLE TAP).
7. Jump to the top of the page (2-Finger\_SWIPE UP) and pause the speech (2-Finger\_TAP).
8. Again, move down by “Links” to the “Grades” link (1-Finger\_FLICK DOWN) repeatedly.
9. Finally, move back up by “Links” to the “Authors” link (1-Finger\_FLICK UP) repeatedly.

### **Task 8: Use the “Rotor” to move by “Form Controls”**

**Note:** During this task you will navigate a web page by Form Controls and conduct a search for a book on Bookshare.org. Form Controls are elements such as Edit boxes, Combo/Popup boxes, Check boxes and Buttons. Most web pages will have search boxes, which are Edit boxes, also called “Text Fields”. Online forms will have Edit boxes as well as many of the other elements listed above.

1. If not already there, go to bookshare.org using Safari and activate the “Browse” link to go to the “Browse” web page; refer to Task 8, if needed.
2. Change “Rotor” to “Form Controls” (2-Finger\_ROTATE RIGHT) repeatedly. Listen for the number of “Form Controls” on the web page.
3. Jump to the top of the page (2-Finger\_SWIPE UP) and pause the speech (2-Finger\_TAP).
4. Move down the web page by “Form Controls” (1-Finger\_FLICK DOWN) repeatedly. When you get to the end of the page VoiceOver makes bumping sound and says, “Form Controls not found”.
5. Move to the Email “Text Field”:
  - a. Slowly move up the web page by “Form Controls” to the “Email” Text Field (1-Finger\_FLICK UP).
  - b. Slowly move down the web page by “Form Controls” to the “Search” Text Field (1-Finger\_FLICK DOWN).
  - c. Activate to open the on-screen keyboard (1-Finger\_DOUBLE TAP).
  - d. Use 1 of the following 3 typing methods to type the search string, “The Outsiders”; refer to Task 2, Item 3 if needed. Then move to the “GO” button on the on-screen keyboard and (1-Finger\_DOUBLE TAP) to launch the Search Results web page.
    - i. Method 1: Standard Typing (select & double tap).
    - ii. Method 2: Standard Typing (split finger).
    - iii. Method 3: Touch Typing.
6. Move through and listen to the different types of “Form Controls”:
  - a. Jump to the top of the page (2-Finger\_SWIPE UP) and pause the speech (2-Finger\_TAP).
  - b. Slowly move down the web page by “Form Controls” to the “GO” button (1-Finger\_FLICK DOWN). This is the last “Form Control” on this page.
7. Read the two paragraphs on the Search Results web page about “The Outsiders” (1-Finger\_FLICK RIGHT) repeatedly.

### **Task 9: Viewing Articles in “Reader”**

**Note:** The “Reader” is a feature that allows you to view an article in a new page without the advertisements, links and sidebar information. During this task you will go to the “read2go.org” website and use the “Reader” to view information about the Apple’s “Read2Go” app.

1. Make sure you have Safari launched.
2. Launch the “read2go.org” website:
  - a. Move to the Address Bar using the following method: Locate top-center of screen and slide down to “Address Bar” (1-Finger\_TAP & SLIDE DOWN) and then enter the “Address Bar” (1-Finger\_DOUBLE TAP). The on-screen keyboard will pop up and fill the lower half of the screen.
  - b. Use one of the 3 typing methods discussed in Task 2, Item 3 to type read2go.org in the address bar. Use the “More numbers/letters” button to switch the on-screen keyboard between letters and numbers. Then move to the “GO” button on the on-screen keyboard to launch the website.
    - i. Method 1: Standard Typing (select & double tap).
    - ii. Method 2: Standard Typing (split finger).
    - iii. Method 3: Touch Typing.

3. Move to and select the “Reader” button:
  - a. Move to the toolbar located at the top of screen and select the “Reader” button just right of the Address Bar (1-Finger\_TAP) and (1-Finger\_FLICK RIGHT) repeatedly.
  - b. Activate the “Reader” button (1-Finger\_DOUBLE TAP). A new page opens with just the information about the main article on the page.
4. Read one paragraph at a time (1-Finger\_FLICK RIGHT) repeatedly.
5. Now, start reading from the top of page (2-Finger\_SWIPE UP).
6. Pause the speech (2-Finger\_TAP).
7. Close the “Reader” page to go back to the original webpage (2-Finger\_SCRUB) or activate the (Back) button on the toolbar.

## **SECTION 2.4: Multitasking Gestures – Rearranging App Icons**

### **Task 1: Rearranging the App Icons on the “Home” screen:**

1. Go to the “Home” Screen (4/5-Finger\_PINCH).
2. Place the Home Screen into “Jiggle” mode:
  - a. Select the “Notes” app icon (1-Finger\_FLICK RIGHT or LEFT).
  - b. Place in “Jiggle” mode (1-Finger\_DOUBLE TAP & HOLD).
3. Drag the “Notes” app up to be the first icon, row 1 column 1 (1-Finger\_DOUBLE TAP & DRAG).
4. Exit the “Jiggle” mode; press the (Home) button.

### **Task 2: Multitasking Gestures (Multitasking Bar)**

**Note:** During this task you will learn how to use “Multitasking Gestures” to go to the “Home” screen, reveal the “Multitasking Bar” and “Switch” to another app.

1. Go to the “Home” screen (4/5-Finger\_PINCH).
2. Launch “Safari” (1-Finger\_FLICK RIGHT or LEFT) and (1-Finger\_DOUBLE TAP).
3. Again, go to the “Home” screen; (4/5-Finger\_PINCH).
4. Launch “Settings” (1-Finger\_FLICK RIGHT or LEFT) and (1-Finger\_DOUBLE TAP).
5. Reveal the “Multitasking Bar”:
  - a. Use the “Multitasking Gesture” to reveal “Multitasking Bar” (4/5-Finger\_SWIPE UP).
  - b. From the list, move to “Safari” (1-Finger\_FLICK RIGHT or LEFT).
  - c. Activate “Safari” (1-Finger\_DOUBLE TAP).

### **Task 3: Switch between Apps**

1. Safari should still be open.

**Note:** Must be in an app and have at least one other app opened.

2. Switch to the Next App (4/5-Finger\_SWIPE) left.
3. Switch to the Previous App (4/5-Finger\_SWIPE) right.

### **Task 4: Turn ON/OFF the Curtain**

1. Turn ON the Curtain (3-Finger\_TRIPLE TAPS), toggle.

**Note:** If VoiceOver is on and Accessibility Zoom is enabled (3-Finger\_FOUR TAPS).

2. Go to the “Home” screen; press (Home) button.
3. Navigate to last app icon on the “Home” screen (1-Finger\_FLICK RIGHT).
4. Navigate back to the first app icon on the “Home” screen (1-Finger\_FLICK LEFT).
5. Turn OFF the Curtain (3-Finger\_TRIPLE TAP), toggle.

Note: If VoiceOver is on and Accessibility Zoom is enabled (3-Finger\_FOUR TAPS).

## SECTION 2.5: iBooks (reading a book)

**Note:** During this section you will learn how to navigate a book in iBooks. iBooks is a free app that you must download from the App Store. You can download books to iBooks using the “Store” button in iBooks. Also, you can download ePub, PDF and iBook files to your computer and sync them to your iPad. iBooks is accessible to blind and visually impaired users through VoiceOver, ZOOM, or VoiceOver with a braille display. Although you can read books in portrait or landscape orientation, some books only allow you to adjust the font size when it’s in the portrait orientation; so we will use portrait orientation for these tasks.

### Task 1: Set the iPad to the Portrait Orientation

1. Slide the “Side Switch” to the left to unlock it.
2. Tilt the iPad up on its edge and rotate it so the (Home) button is at the bottom.
3. Slide the “Side Switch” back down to relock the rotation.

### Task 2: Launch the "iBooks" app

**Note:** The iBooks library has two main views, “Group View” (bookshelf look) and “List View”. Both views have five buttons across the top on the toolbar; they are: Store, Collections, Group View, List View and Edit. The “Store” button takes you to the Internet to search for books to download. The “Collections” button allows you to switch between your collections of books, purchased books, PDF files, etc. The Group View and List View buttons allow you two ways to arrange the books. The Group View has the books standing up on shelves, showing their covers. In the List View the books are in one vertical list and you have four additional buttons across the bottom of the screen. They are: Bookshelf, Titles, Authors and Categories.

Selecting the Edit button allows you to move or delete books.

1. Go to the “Home” screen, press the (Home) button.
2. Select the “Home” screen page with the iBooks app (3-Finger\_FLICK LEFT or RIGHT).
3. Select & Activate the iBooks app (1-Finger\_TAP) and then (1-Finger\_DOUBLE TAP)

**Note:** iBooks will open either to the last page of your book and VoiceOver will announce the “Library” button or it will open to the “Library” and VoiceOver will announce the “Store” button.

4. Open the iBooks “Library”, if not open already, by using (1-Finger\_DOUBLE TAP) on the “Library” button located at the top-left corner of screen on the toolbar. Remember, if you hear the “Store” button announced you are already in the “Library”.

### Task 3: Launch a Book in iBooks

1. Open the book “iPad User Guide”:
  - a. Note: If the Guide isn’t in iBooks, select the “Store” button and download the app; it’s free!
  - b. Select the book “iPad User Guide” (1-Finger\_FLICK RIGHT or LEFT).
  - c. Activate the book “iPad User Guide” (1-Finger\_DOUBLE TAP).
2. Once you have launched the “iPad User Guide” you will notice a Toolbar running across the top of the screen with six buttons. They are the Library, Table of Contents, Appearance, Search, and Add/Remove Bookmark buttons. Other books may have two additional buttons, Audio and Brightness. Move across the following items on the toolbar using the gesture (1-Finger\_FLICK RIGHT or LEFT):
  - a. Move to the “Library” button, which takes you back to the library with your books, when activated.
  - b. Move to the “Table of Contents” button, which takes you to the Table of Contents with tabs called, Contents, Bookmarks and Notes, when activated.
  - c. Move to the “Appearance” button, which gives you adjustment options such as brightness, font size, font type, color contrast and page format, when activated.



- d. Move to the “Search” button, which allows you to search for text within the book, when activated.
- e. Move to the “Add/remove” button, which allows you to add or remove bookmarks.

#### **Task 4: Open "Table of Contents" to select "Accessibility"**

1. Select the book’s “Table of Contents” button (1-Finger\_FLICK RIGHT or LEFT).
2. Activate the book’s “Table of Contents” button (1-Finger\_DOUBLE TAP).
3. Move down the Table of Contents list to “Accessibility” (1-Finger\_FLICK RIGHT).
4. Activate “Accessibility” (1-Finger\_DOUBLE TAP).

#### **Task 5: Turning Book Pages (3-Finger Swipe & Page Chooser)**

1. 3-Finger\_Flick Method:
  - a. Move focus to the text on the page (1-Finger\_FLICK RIGHT) or (1-Finger\_TAP).
  - b. Pause VoiceOver (2-Finger\_TAP).
  - c. Turn to the next page (3-Finger\_SWIPE LEFT) from page’s right edge.
  - d. Turn to the previous page (3-Finger\_SWIPE RIGHT) from page’s left edge.
  - e. Pause VoiceOver (2-Finger\_TAP).
2. Page Chooser Method (located at the bottom of screen):
  - a. Move to “Page Chooser” (1-Finger\_FLICK RIGHT) or (1-Finger\_TAP) at bottom of screen.
  - b. Method 1: Turning pages (1-Finger\_SWIPE DOWN or UP).
  - c. Method 2: Turning pages (1-Finger\_DOUBLE TAP & HOLD, DRAG LEFT OR RIGHT) at bottom of screen.

#### **Task 6: Reading the pages**

1. Method 1 Reading from the top:
  - a. Jump to the top of page and start reading (2-Finger\_SWIPE UP).

**Note:** VoiceOver will start reading from the top of page and will continue reading the book until you pause it.

  - b. Pause the reading (2-Finger\_TAP) toggle.
  - c. Resume & Pause the reading again (2-Finger\_TAP) toggle.
2. Method 2 Reading from your location:
  - a. Start reading from your focused location (2-Finger\_SWIPE DOWN).
3. Method 3 Read one screen at a time:
  - a. Jump to the top of page and start reading (2-Finger\_SWIPE UP).
  - b. Move to the “Text Box” just after the “Add Bookmark” button (1-Finger\_FLICK RIGHT).
4. Method 4 Line by Line
  - a. Read line by line (1-Finger\_TAP) on each line of text.

#### **Task 7: Bookmarks**

**Note:** You don’t have to set a bookmark when you close the book to keep your place; iBooks will remember your page and return you to it when you re-open the book. Setting bookmarks is nice when you want to mark numerous pages of the book.

1. Add A Bookmark:
  - a. Make sure the iPad User Guide is open.
  - b. Move to the “Add a Bookmark” button on the toolbar (1-Finger\_FLICK RIGHT or LEFT) and then (1-Finger\_DOUBLE TAP) to activate.
  - c. Place focus on page (1-Finger\_FLICK RIGHT) and pause speech (2-Finger\_TAP).
  - d. Turn the pages three or four times (3-Finger\_SWIPE LEFT) repeatedly.
  - e. Move to the “Add a Bookmark” button (1-Finger\_FLICK LEFT).
  - f. Activate the “Add a Bookmark” button (1-Finger\_DOUBLE TAP).

- g. Repeat the steps to turn the page and add another "Bookmark".
- 2. Navigating Your Bookmarks:
  - a. Select the "Table of Contents" button on the Toolbar (1-Finger\_FLICK LEFT or RIGHT).
  - b. Activate the "Table of Contents" button (1-Finger\_DOUBLE TAP).
  - c. Move to and activate the "Bookmarks" tab (1-Finger\_FLICK RIGHT), then (1-Finger\_DOUBLE TAP).
  - d. Move to and activate one of your "Bookmarks" (1-Finger\_FLICK RIGHT) then (1-Finger\_DOUBLE TAP). This will close the "Table of Contents" and move you to the page.
- 3. Remove A Bookmark:
  - a. Move to the "Remove Bookmark" button on toolbar (1-Finger\_FLICK RIGHT or LEFT).
  - b. Activate the "Remove Bookmark" button (1-Finger\_DOUBLE TAP).

## SECTION 2.6: Typing with the "Notes" App

**Note:** The Notes app allows you to type notes using the on-screen keyboard, an external Bluetooth keyboard, or a refreshable braille display. Although in this section you will be using the on-screen keyboard to complete tasks, the on-screen keyboard is not the most appropriate tool for writing lengthy notes or assignments. When you work in Notes in Landscape orientation you have two panes, a narrow pane to the left with a list of previously created notes and a wider pane with the page for your text. In Portrait orientation you have to select "Notes" button to access the list of previously created notes, you have one page which is your text page.

With an iCloud account you can sync your notes with your other iDevices and computer. Notes can be emailed as well.

### Task 1: Launch "Notes"

1. For tasks 1 and 2 make sure you have the iPad in Landscape orientation.
2. First go to the "Home" screen, press (Home) button.
3. Move to and activate the "Notes" app (1-Finger\_FLICK RIGHT or LEFT), then (1-Finger\_DOUBLE TAP).

### Task 2: Create "Sample Note 1" – Typing Method 1

1. Create your first note using Method 1 Standard typing (select & double tap):
  - a. Select and activate the "Add a Note" button (1-Finger\_FLICK RIGHT or LEFT), then (1-Finger\_DOUBLE TAP).

**Note:** If the "Add a Note" button is grayed out/not available, you are in a new note.

- b. Access the "Rotor" and select "Typing Mode" (2-Finger\_ROTATE).
- c. Select "Standard Typing" (1-Finger\_SWIPE UP/DOWN).
2. Typing words:
  - a. Type the words, "Sample Note 1" using the gesture (1-Finger\_FLICK Right or Left) or (1-Finger\_TAP & SLIDE) to select the letter and (1-Finger\_DOUBLE TAP) to type them. This is the first line of text.
  - b. Use the same gestures to move to and select the "Return" key. This will move you to the second line.
  - c. Now, continue to use this method and type, My name is...
  - d. Use the same gestures to move to and select the "Return" key.
  - e. Again, use this method and type the sentence, The sky is blue.

### 3. Navigating your text:

- a. To jump back and forth between the beginning and end of your text, first (1-Finger\_TAP) just above the on-screen keyboard to place the focus on the page. Then (1-Finger\_DOUBLE TAP) repeatedly.
  - b. To navigate by lines, words, or characters, first set the “Rotor” to lines, words, or characters (2-Finger\_ROTATE). Then use (1-Finger\_SWIPE UP/DOWN) to navigate by the selected item.
4. Select the “Hide Keyboard” key to close the keyboard (1-Finger\_FLICK Right or Left) or (1-Finger\_TAP & SLIDE) then (1-Finger\_DOUBLE TAP) to activate and close keyboard.

### **Task 3: Create "Sample Note 2" – Typing Method 2**

1. Create your second note using Method 2 Standard Typing (2-Finger\_SPLIT- TAP):
  - a. Select and activate the “Add a Note” button (1-Finger\_FLICK RIGHT or LEFT) and then (1-Finger\_DOUBLE TAP).
  - b. Make sure the “Rotor” is still set to “Typing Mode” (2-Finger\_ROTATE), set to Standard Typing (1-Finger\_SWIPE UP/DOWN).
  - c. Type the words “Sample Note 2” using one finger to select each letter (1-Finger\_TAP & SLIDE) and another finger to tap the screen to type the letters (2-Finger\_Split-Tap).
  - d. On the next line, continue to use method 2 and type the sentence, “The grass is green.”
  - e. Select the “Hide Keyboard” key to close the keyboard (1-Finger\_FLICK Right or Left) or (1-Finger\_TAP & SLIDE) then (1-Finger\_DOUBLE TAP) to activate and close keyboard.

### **Task 4: Create "Sample Note 3" – Typing Method 3**

1. Create your third note using Typing Method 3 Touch Typing:
  - a. Select and activate the “Add a Note” button (1-Finger\_FLICK RIGHT or LEFT) and then (1-Finger\_DOUBLE TAP).
  - b. Access the “Rotor” and select “Typing Mode” (2-Finger\_ROTATE).
  - c. Select “Touch Typing” (1-Finger\_SWIPE UP/DOWN).
  - d. Type the words, “Sample Note 3” using the third typing method, Touch Typing. This is accomplished by using the index finger to tap and slide to each key and then lifting your finger to type the character.
  - e. On the next line, continue to use method 3 and type the sentence “The red car is fast.”
  - f. Select the “Hide Keyboard” key to close the keyboard (1-Finger\_FLICK Right or Left) or (1-Finger\_TAP & SLIDE) then (1-Finger\_DOUBLE TAP) to close keyboard.

### **Task 5: Switch between notes**

1. In Landscape orientation, select one of the notes in the left pane:
  - a. Move to Sample Note 1 (1-Finger\_FLICK RIGHT or LEFT).
  - b. Activate the note to open it (1-Finger\_DOUBLE TAP).
  - c. Move to and read note (1-Finger\_FLICK RIGHT) repeatedly.
2. In Portrait orientation, select one of your notes:
  - a. Rotate the iPad to Portrait orientation.
  - b. Move to the “Notes” button (1-Finger\_FLICK LEFT) repeatedly.
  - c. Activate button and open the list of notes (1-Finger\_DOUBLE TAP).
  - d. Move to Sample Note 3 (1-Finger\_FLICK RIGHT).
  - e. Activate the note to open it (1-Finger\_DOUBLE TAP).
  - f. Move to and read note (1-Finger\_FLICK RIGHT) repeatedly.

**Task 6: Delete notes**

1. In the Portrait orientation, move to the “Delete” button; (1-Finger\_FLICK RIGHT OR LEFT) repeatedly, then (1-Finger\_DOUBLE TAP). Repeat gesture to activate the next “Delete” button that pops up.

2. Repeat the steps to delete the other 2 notes.

**Note:** If the “Delete” button is unavailable, move to and enter the “Notes” page, close the keyboard and then move to and activate the “Delete” button.

## PART 3: IPAD WITH ZOOM

### Before We Get Started

#### Introduction:

1. The iPad has two Zoom features: “Mainstream Zoom” and “Accessibility Zoom”. Although it depends on the user’s visual impairment, many users may want to use a combination of these two zoom features.
2. The “Mainstream Zoom” is limited to apps such as photos, webpages, mail and maps. It will not magnify the “Home” screen, Settings, Notes, Calendar, iBooks and other similar apps. Also, it only allows you to zoom in on the page itself, not on the title bar or toolbar.
3. The “Accessibility Zoom” magnifies the entire screen, including the title bar and toolbar. It works on the “Home” screen and with apps. You can use “Accessibility Zoom” and “VoiceOver” together. Also, you can use both “Mainstream Zoom” with “Accessibility Zoom”.
4. The navigation of the iPad and its apps, when using the Accessibility Zoom, is the same as Mainstream navigation, except for a few gestures that control zooming and panning.

### SECTION 3.1: Physical Controls

**Note:** All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface.

1. To turn on the iPad from shutdown:
  - a. Press & hold the (Sleep/Wake) button for 3-5 seconds.
  - b. Slide right the (Slide to Unlock) button.
2. To shut down the iPad:
  - a. Wake up iPad if asleep; press & release the (Home) button.
  - b. Press & hold the (Sleep/Wake) button for 3-5 seconds.
  - c. Press & release the (Slide to Power off) button.
3. Lock the iPad by putting it to sleep:
  - a. Turn on the iPad, then press & release the (Sleep/Wake) button.
4. Unlock iPad from sleep:
  - a. After a few seconds the iPad goes to sleep. To wake it up, press and release the (Home) or (Sleep/Wake) button.
5. Locate the following physical controls:
  - a. Side Switch located on back edge, left corner, the edge that is away from your body.
  - b. Volume control located right of the (Side Switch) on back edge.
  - c. Head Phone Jack located on left edge, corner closest to your body.
  - d. FaceTime Camera located on left border of screen, opposite the (Home) button.
  - e. iSight Camera located on the underneath side, next to the (Sleep/Wake) button.
  - f. Dock Connector located on right edge, underneath the (Home) button.
6. Use the (Side Switch) to lock screen "rotation" or "mute" the sound:
  - a. During training or used by students it is beneficial to have the (Side Switch) set to “Lock Rotation” in Settings. This provides a quick way to lock the screen rotation to keep the screen from unintentional rotation.
  - b. You can change the setting of the (Side Switch) from “Lock Rotation” to “Mute” by going to (Settings > General > Use Side Switch To), then check one of the two items.
  - c. Locking and unlocking the screen rotation:
    - i. Slide the (Side Switch) to the left to unlock the screen rotation.
    - ii. Raise the iPad in the vertical position with its edge on table surface.
    - iii. Rotate the iPad so the edge with the (Home) button is touching the table surface. You will notice that the screen rotated right-side up.

iv. Again, unlock and rotate iPad back in the landscape orientation position with the (Home) button to the right and use the (Side Switch) to lock the screen rotation.

## **SECTION 3.2: Triple-click Home – Navigating the "Home" screen & Settings**

**Note:** All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface.

### **Task 1: Triple-click Home Settings Configuration 2**

**Note:** During this task you will set the "Triple-click Home" feature to give both the blind and visually impaired user the ability to switch between VoiceOver and the Accessibility Zoom. The "Triple-click Home" feature gives you an easy way to cycle between four accessibility features by pressing the (Home) button three times quickly. Refer back to "Part 2: iPad and VoiceOver" for more details on this feature.

1. Setting "Triple-click Home" to "VoiceOver":

- a. Turn on the iPad and go to the "Home" screen.
- b. Launch the "Settings" app (1-Finger\_TAP).
- c. In the left pane, select and open the "General" menu (1-Finger\_TAP).
- d. In the right pane, select and open the "Accessibility" menu (1-Finger\_TAP).
- e. In the right pane, select and open "Triple-click Home" menu (1-Finger\_TAP).
- f. In the right pane, select "VoiceOver" (1-Finger\_TAP).

2. Enable the Accessibility Zoom feature:

- a. At the top, on the toolbar, select the "Accessibility" button to take you back to the previous page (1-Finger\_TAP).
- b. In the right pane, scroll to the top of the menu and open the "Zoom" menu. Enable Zoom by setting the on/off button to ON.

**Note:** Review the three gestures located on this screen (below the off/on button), you will use these gestures throughout Part 3.

3. Practice your Settings:

**Note:** It is very important to make sure all 3 fingers are on the screen as you make the (3-Finger) gestures for the Accessibility Zoom. If you accidentally lift one finger during the gesture you will not get the desired results.

- a. Move to the "Home" screen, press the (Home) button once.
- b. Zoom IN (3-Finger\_DOUBLE TAP & SLIDE UP). Note: Slide up on the second tap.
- c. Toggle between your zoomed in magnification and zoomed out no magnification (3-Finger\_DOUBLE TAP).
- d. Again, zoom IN (3-Finger\_DOUBLE TAP & SLIDE UP).
- e. Zoom OUT until there is no magnification (3-Finger\_DOUBLE TAP & SLIDE DOWN).

**Note:** Start the gesture at the top of the screen and slide to the bottom.

- f. Turn on VoiceOver, press the (Home) button 3 times quickly. You now have VoiceOver and Accessibility Zoom enabled.
- g. Turn off VoiceOver, press the (Home) button 3 times quickly. You now only have the Accessibility Zoom enabled. VoiceOver will remain off for Part 3.

## **Task 2: Panning icons on the "Home" screen page**

**Note:** It is very important to make sure all 3 fingers are on the screen as you make the (3-Finger) gestures for the Accessibility Zoom. If you accidentally lift one finger during the gesture you will not get the desired results.

1. You should be on the "Home" screen with the icon apps, if not press the (Home) button once. Also, you should be zoomed out with no magnification, if not refer to Task 1, Item 3.
2. The pages of the "Home" screen have 5 rows and 5 columns of app icons. Look at your "Home" screen and make note of the app icons in top and bottom rows. Also, make note of the app icons in the first and last columns.
3. Adjust your zoom IN or OUT until you only have 3 columns of icons visible on the "Home" screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN).
4. Pan the screen to the far left of page (3-Finger\_TAP & SLIDE RIGHT) repeatedly if needed.
5. Pan to the top of the screen until you see the word, "iPad" and the "wifi icon" on the "Status Bar" (3-Finger\_TAP & SLIDE DOWN) repeatedly if needed.
6. Pan to the bottom of the screen until you see the bottom row of app icons (3-Finger\_TAP & SLIDE UP) repeatedly if needed.
7. Pan the screen to the far right of page until you see the last app icon on the bottom row (3-Finger\_TAP & SLIDE LEFT) repeatedly if needed.

**Note:** The gestures you have learned in this task will be used throughout Part 3.

## **Task 3: Navigating between the "Search" screen and the "Home" screen pages**

**Note:** In most cases, you will use a combination of Mainstream gestures and Accessibility Zoom gestures to navigate.

1. You should be on the "Home" screen with the apps icons, if not press the (Home) button once.
2. Again, adjust your zoom IN or OUT until you only have 3 columns of icons visible on the "Home" screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN).
3. Move to the Search Screen (1-Finger\_TAP & SLIDE RIGHT).
4. Move back to page 1 of the "Home" screen (1-Finger\_TAP & SLIDE LEFT).
5. Next, move on to page 2 of the "Home" screen (1-Finger\_TAP & SLIDE LEFT) again.
  - a. Note: the number of "Home" screen pages will depend on number of app and folder icons you have on the "Home" screen.
6. Move back to page 1 of the "Home" screen (1-Finger\_TAP & SLIDE RIGHT).

## **Task 4: Rearranging the App Icons on the "Home" screen**

1. Go to the "Home" Screen; press (HOME) button.
2. Adjust your zoom IN or OUT until you only have 3 columns of icons visible on the "Home" screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN).
3. Place the "Home" screen into "Jiggle" mode by (1-Finger\_TAP & HOLD) and drag the desired icon to a different location.
4. Disable the "Jiggle" mode by pressing the (Home) button once.

## **Task 5: Create "Folders" on the "Home" screen**

1. Go to the "Home" Screen; press (HOME) button.
2. Adjust your zoom IN or OUT until you only have 3 columns of icons visible on the "Home" screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN).
3. Place the "Home" screen into "Jiggle" mode by (1-Finger\_TAP & HOLD) and then dragging the desired icon onto another icon; the folder is automatically created and named.
4. Disable the "Jiggle" mode by pressing the (Home) button once.
5. Close the new folder, press the (Home) button again.

## Task 6: Navigating the iPad "Settings"

**Note:** In most cases, you will use a combination of Mainstream gestures and Accessibility Zoom gestures to navigate. During this task you will go to "Settings" and turn on the "Invert Colors" accessibility feature.

1. You should be on the "Home" screen with the apps icons, if not press the (Home) button once.
  2. Jump to zoom out, no magnification (3-Finger\_DOUBLE TAP).
  3. Now, jump to zoom in, to your previous zoom magnification (3-Finger\_DOUBLE TAP) again.
  4. Adjust your zoom IN or OUT until you only have 3 columns of icons visible on the "Home" screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN).
  5. Move to the "Home" screen page with the "Settings" app icon (1-Finger\_TAP & SLIDE RIGHT or LEFT).
  6. Pan the screen to view the "Settings" app (3-Finger\_TAP & SLIDE ANY DIRECTION).
  7. Launch the "Settings" app (1-Finger\_TAP).
  8. Pan the screen to the left pane (3-Finger\_TAP & SLIDE RIGHT) and select "General" (1-Finger\_TAP).
  9. Pan the screen to the right pane (3-Finger\_TAP & SLIDE LEFT).
  10. Scroll and pan down the right pane until you see "Accessibility".
- Note:** To view "Accessibility" it may take a combination of (1-Finger\_TAP & SLIDE UP) and (3-Finger\_TAP & SLIDE UP).
11. Now, select "Accessibility" (1-Finger\_TAP).
  12. Pan the screen to view "Invert Colors" the upper right pane (3-Finger\_TAP & SLIDE DOWN). Now pan to the right edge of right pane to view the on/off button.
  13. Now, select the "Invert Colors" on/off button to turn on feature (1-Finger\_TAP).
  14. Select the "Invert Colors" on/off button again to turn off feature (1-Finger\_TAP).
  15. Move back to the "Home" screen, press (Home) button once.
  16. Jump to zoom out, no magnification (3-Finger\_DOUBLE TAP).



## SECTION 3.3: Surfing the Internet with Safari

**Note:** All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface. The tasks in this section will demonstrate strategies using both Mainstream Zoom and Accessibility Zoom.

### Task 1: Launch Safari and go to [www.animalfactguide.com](http://www.animalfactguide.com)

1. You should be on the “Home” screen with the apps icons, if not press the (Home) button once.
2. Jump to zoom out, no magnification (3-Finger\_DOUBLE TAP).
3. Launch “Safari” (1-Finger\_TAP).
4. Select the “Address Bar” at top of screen (1-Finger\_TAP). This should bring up the on-screen keyboard.
5. Type [animalfactguide.com](http://www.animalfactguide.com) by selecting each key and then select the “GO” key (1-Finger\_TAP).

### Task 2: Mainstream Zoom (2-Finger\_Pinch) & (Double Tap)

1. Make sure you have completed Task 1.
2. Mainstream (2-finger pinch) Zoom:
  - a. Zoom In by placing your thumb and index finger together on the screen and slowly slide them apart about two inches (2-Finger\_PINCH). Notice that only the webpage was magnified, not the toolbar at the top.
  - b. Now Zoom Out by placing your thumb and index finger apart about two inches and sliding them together (2-Finger\_PINCH).
  - c. Again Zoom In by placing your thumb and index finger together on the screen and slowly slide them apart about two inches (2-Finger\_PINCH).
  - d. Locate the link “Animal Facts”: Pan to the left edge of the webpage (1-Finger\_TAP & SLIDE RIGHT); then pan up or down to the row of links close to the top of the webpage (1-Finger\_TAP & SLIDE DOWN or UP).
  - e. Select the “Animal Facts” link (1-Finger\_TAP). Notice on the new webpage there is no magnification, back to the normal view.
  - f. Zoom In by placing your thumb and index finger together on the screen and slowly slide them apart about two inches (2-Finger\_PINCH).
  - g. Locate the picture or link of the “Cougar”: Pan to the left edge of the webpage (1-Finger\_TAP & SLIDE RIGHT). Pan down the webpage to the picture or link of the “Cougar” (1-Finger\_TAP & SLIDE UP) repeatedly.
  - h. Select the “Picture” or “Link” (1-Finger\_TAP). Again, the new web page is not magnified.
  - i. Zoom In by placing your thumb and index finger together on the screen and slowly slide them apart about two inches (2-Finger\_PINCH).
  - j. Scroll to the left edge of the webpage (1-Finger\_TAP & SLIDE RIGHT) repeatedly.
  - k. Scroll to the right edge of the webpage (1-Finger\_TAP & SLIDE LEFT) repeatedly.
  - l. Scroll to the bottom edge of the webpage (1-Finger\_TAP & SLIDE UP) repeatedly.
  - m. Scroll to the left edge of the webpage (1-Finger\_TAP & SLIDE DOWN) repeatedly.
  - n. Now Zoom Out to normal view (2-Finger\_PINCH).
3. Mainstream (1 & 2 Finger\_Double Tap) Zoom:
  - a. You should still be on the Cougar’s webpage.
  - b. Zoom in on the left column by (1-Finger\_DOUBLE TAP) on the left column.
  - c. Scroll down the column (1-Finger\_TAP & SLIDE UP) repeatedly.
  - d. Zoom out back to normal view of webpage (2-Finger\_DOUBLE TAP) on left column.

### **Task 3: Accessibility Zoom**

1. Make sure you have completed Tasks 1 and 2.
2. Move to the “Home” screen, press the (Home) button.
3. Adjust your zoom IN or OUT until you only have 3 columns of icons visible on the “Home” screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN).
4. Pan the screen to view the “Safari” app (3-Finger\_TAP & SLIDE ANY DIRECTION).
5. Launch the “Safari” app (1-Finger\_TAP).
6. Pan to the left edge of the webpage (3-Finger\_TAP & SLIDE RIGHT).
7. Pan to the top of the webpage (3-Finger\_TAP & SLIDE DOWN).
8. Scroll to the top of the webpage (1-Finger\_TAP & SLIDE UP).
9. Scroll to the title/heading “Cougar” of the webpage (1-Finger\_TAP & SLIDE UP).
10. Pan to read information about the “Cougar”:
  - a. Scroll down the webpage to read the first paragraph (1-Finger\_TAP & SLIDE UP).
  - b. Start Scrolling down (1-Finger\_TAP & SLIDE UP) and Panning to the right and left (3-Finger\_TAP & SLIDE LEFT and then RIGHT) to continue reading the next 2 paragraphs. This may take some practice to master.
  - c. Practice using the above gestures to move around and read the information on this webpage.

### **Task 4: Viewing Articles in "Reader"**

**Note:** The “Reader” is a feature that allows you to view an article in a new page without the advertisements, links and sidebar information. During this task you will go to the “Giraffe” webpage and use the “Reader” to view information about the “Giraffe”.

1. Make sure you have completed Tasks 2 and 3.
2. Pan to view the “Address Bar” with the “Reader” button (3-Finger\_DOUBLE TAP & SLIDE DOWN). Then pan to the right edge of webpage (3-Finger\_DOUBLE TAP & SLIDE LEFT).
3. Select the “Reader” button (1-Finger\_TAP).
4. Adjust your zoom IN or OUT until you have the picture of leaping cougar filling the width of the screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN).
5. Pan the screen to view each paragraph (3-Finger\_TAP & SLIDE ANY DIRECTION).
6. Now, zoom out, with no magnification (3-Finger\_DOUBLE TAP).
7. Select the “Text Size” button to increase the font size on the “Reader” page.
8. Select the “Reader” button to close the “Reader” page and go back to the original webpage (1-Finger\_TAP).
9. Move to the “Home” screen, press the (Home) button.

### **SECTION 3.4: Accessing Maps (Accessibility ZOOM vs. Mainstream Zoom)**

**Note:** All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface. The tasks in this section will demonstrate strategies using both Mainstream Zoom and Accessibility Zoom.

#### **Task 1: Enable and Adjust Accessibility ZOOM**

1. Move to the “Home” screen, press the (Home) button.
2. Adjust your zoom IN or OUT until you only have 4 icons visible on the “Home” screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN) to zoom and (3-Finger\_TAP & SLIDE ANY DIRECTION) to pan screen.
3. Zoom out to normal view (3-Finger\_DOUBLE TAP).

#### **Task 2: Launch "Maps" app & Adjust Map size**

1. You should have completed Task 1.
2. Launch the “Maps” app (1-Finger\_TAP).
3. Use the Mainstream zoom to adjust the map size so the 48 US states are framed on the screen and then pan map to center of screen:
  - a. To adjust size place thumb and index finger together on the screen and slide them apart or together (2-Finger\_PINCH).
  - b. To pan map to the center (1-Finger\_TAP & SLIDE ANY DIRECTION).
4. Use Accessibility Zoom to pan Oklahoma in center of screen:
  - a. Zoom in to the preset zoom (3-Finger\_DOUBLE TAP) in the center of screen.
  - b. Pan Oklahoma in the center of the screen (3-Finger\_TAP & SLIDE ANY DIRECTION).
5. Use the Mainstream zoom to show cities in Oklahoma:
  - a. Zoom in and pan to show the streets of your city or town in the center of the screen. The two gestures are (2-Finger\_PINCH) to zoom in or out and (1-Finger\_TAP & SLIDE ANY DIRECTION) to pan in any direction.
  - b. Repeat process until you can read the street name of a known intersection.
6. Use Mainstream (Tap & Double Tap) to Zoom:
  - a. Use Mainstream zoom to zoom out (2-Finger\_TAP) 3 or 4 times.
  - b. Use Mainstream zoom to zoom in (1-Finger\_TAP) 3 or 4 times.
7. Use Accessibility Zoom to show 48 US States:
  - a. Use Accessibility Zoom and zoom out to normal view (3-Finger\_DOUBLE TAP).
  - b. Use Mainstream Zoom and zoom out to US States, the gestures are (2-Finger\_PINCH) to zoom in or out repeatedly and (1-Finger\_TAP & SLIDE ANY DIRECTION) to pan in any direction.
8. Move to “Home” screen, press (Home) button.

## SECTION 3.5: iBooks: (reading a book)

**Note:** During this section you will use Accessibility Zoom to navigate the iBooks app and the book's large font to read the book. iBooks is a free app that you must download from the App Store. You can download books to iBooks using the "Store" button in iBooks. Also, you can download ePub, PDF and iBook files to your computer and sync them to your iPad. Although you can read books in portrait or landscape orientation, some books only allow you to adjust the font size when it's in the portrait orientation so we will use portrait orientation for these tasks.

### Task 1: Set the iPad to the Portrait Orientation

1. Go to the "Home" screen by pressing the (Home) button.
2. Slide the (Side Switch) to the left to unlock it.
3. Tilt the iPad up on its edge and rotate it so the (Home) button is at the bottom.
4. Slide the (Side Switch) back down to relock the rotation, then lay the iPad back on the table.

### Task 2: Adjust Accessibility Zoom

**Note:** During this task we will only use the Accessibility Zoom when needed for navigation.

1. Move to the "Home" screen, press the (Home) button.
2. Adjust your zoom IN or OUT until you only have 6 icons visible on the "Home" screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN) to zoom and (3-Finger\_TAP & SLIDE ANY DIRECTION) to pan screen.

### Task 3: Launch the "iBooks" app

1. Make sure you have completed task 2, adjusting your Accessibility Zoom, before completing this task.
2. If the iBooks app is on page one of the "Home" screen then (3-Finger\_TAP & SLIDE ANY DIRECTION) to pan screen to view iBooks. If iBooks is not on page one then to move to the "Home" screen page with iBooks (1-Finger\_FLICK LEFT or RIGHT) and pan the screen to find iBooks (3-Finger\_TAP & SLIDE ANY DIRECTION).
3. Select & Activate the iBooks app (1-Finger\_TAP).

### Task 4: Library (Opening Books)

**Note:** The iBooks library has two main views, "Group View" (bookshelf look) and "List View". Both views have five buttons across the top on the toolbar; they are: Store, Collections, Group View, List View and Edit. The "Store" button takes you to the Internet to search for books to download. The "Collections" button allows you to switch between your collections of books, purchased books, PDF files, etc. The Group View and List View buttons will arrange the books. The Group View has the books standing up on shelves, showing their covers. In the List View the books are in one vertical list and you have four additional buttons across the bottom of the screen. They are: Bookshelf, Titles, Authors and Categories. Selecting the Edit button allows you to move or delete books.

1. Do the following to open the iBooks "Library":

**Note:** If it is already open you will not see the "Library" button and you can move to item 2 in this task.

- a. Make sure you have completed task 2, adjusting your Accessibility Zoom, before completing this task.
- b. Use the Accessibility Zoom panning gesture to move to the first item on the toolbar; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the left edge of screen (3-Finger\_TAP & SLIDE RIGHT).

- c. Select the “Library” button (1-Finger\_TAP) at the top on the toolbar.
2. Do the following to select & open the book “iPad User Guide”:
 

**Note:** If the Guide isn’t in iBooks, select the “Store” button and download the app. It’s free!

  - a. Use the Accessibility Zoom panning gesture to pan in view the book “iPad User Guide”; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the left edge of screen (3-Finger\_TAP & SLIDE RIGHT). Now pan left (3-Finger\_TAP & SLIDE LEFT) across the shelves.
  - b. If the book is not found then pan down to the next row (3-Finger\_TAP & SLIDE DOWN) and begin panning to the left (3-Finger\_TAP & SLIDE RIGHT). Repeat the steps until the book is in view.
  - c. Select & Activate the iBooks app (1-Finger\_TAP). The “iPad User Guide” should now be open.

**Note:** Once you have launched the “iPad User Guide” you will notice a Toolbar running across the top of the screen with six buttons. They are the Library, Table of Contents, Appearance, Search and Add/Remove Bookmark buttons. Other books may have two additional buttons, Audio and Brightness.

  - The “Library” button takes you back to the library with your books.
  - The “Table of Contents” button takes you to the Table of Contents with tabs for Contents, Bookmarks and Notes.
  - The “Appearance” button gives you some adjustment options such as brightness, font size, font type, color contrast and page format.
  - The “Search” button allows you to search for text within the book.
  - The “Add/Remove Bookmark” button allows you to add or remove bookmarks within the book.

#### **Task 5: Open "Table of Contents" to select "Accessibility" (Accessibility Zoom)**

1. Make sure you have completed task 2, adjusting your Accessibility Zoom, before completing this task.
2. Select book’s “Table of Contents” button:
  - a. Use the Accessibility Zoom panning gesture to move to the first item on the toolbar; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the left edge of screen (3-Finger\_TAP & SLIDE RIGHT).
  - b. Select the “Table of Contents” button (1-Finger\_TAP) at the top on the toolbar.
3. Move down the Table of Contents list to view “Accessibility”:
  - a. Mainstream Scroll down the Table of Content list (1-Finger\_TAP & SWIPE UP). Repeat the gesture until the list stops scrolling.
  - b. Now, use the Accessibility Zoom panning gesture to pan the screen down (3-Finger\_TAP & SLIDE UP).
4. Select to open the “Accessibility” menu (1-Finger\_TAP).

#### **Task 6: Increasing Font Size (No Accessibility Zoom)**

1. Make sure you have completed Tasks 2-5 before completing this task.
2. Open the “Appearance” dialog box by selecting the “Appearance” button:
  - a. Use the Accessibility Zoom panning gesture to move to the last item on the toolbar; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the right edge of screen (3-Finger\_TAP & SLIDE LEFT).
  - b. Select the “Appearance” button (1-Finger\_TAP). Now you have small dialog box with 5 buttons.
3. Zoom out to normal view (3-Finger\_DOUBLE TAP).

4. In the dialog box, locate the button with the large A and increase the font size on the pages (1-Finger\_TAP) repeatedly 6 times.

**Note:** You can also adjust the brightness, font type, and themes.

5. In the dialog box, locate and select the “Themes” button (1-Finger\_TAP).

6. Select the “Night” button to change the color contrast (1-Finger\_TAP). Now, select the “White” button to change it back to the normal contrast (1-Finger\_TAP).

7. Close the “Appearance” dialog box (1-Finger\_TAP) anywhere outside the dialog box.

### **Task 7: Turning the Book Pages (No Accessibility Zoom)**

1. Make sure you have completed Task 6 before completing this task.

2. Turn Pages Slowly:

a. Turn to the next page slowly, from right edge of page (1-Finger\_TAP & SLIDE LEFT).

b. Turn to the previous page slowly, from left edge of page (1-Finger\_TAP & SLIDE RIGHT).

3. Turn Pages Quickly:

a. Turn to the next page; on right edge (1-Finger\_TAP).

b. Turn to the previous page; on left edge (1-Finger\_TAP).

### **Task 8: Working with Bookmarks**

**Note:** You don’t have to set a bookmark when you close the book to keep your place; iBooks will remember your page and return you to it when you re-open the book. Setting bookmarks is nice when you want to mark numerous pages of book.

1. Jump to your previous Accessibility Zoomed In setting (3-Finger\_DOUBLE TAP).

2. Adding Bookmarks:

a. Use the Accessibility Zoom panning gesture to move to the last item on the toolbar; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the right edge of screen (3-Finger\_TAP & SLIDE LEFT).

b. Select the “Add Bookmark” button (1-Finger\_TAP).

c. Turn the next page 3 or 4 times and ADD another Bookmark (1-Finger\_TAP) repeatedly on right edge of page.

d. Repeat the steps 2 or 3 times to ADD additional Bookmarks.

3. Navigating Your Bookmarks:

a. Make sure you have completed the previous steps of this task before moving on.

b. Use the Accessibility Zoom panning gesture to move to the top-left button on the toolbar; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the left edge of screen (3-Finger\_TAP & SLIDE RIGHT).

c. Select the “Table of Contents” button (1-Finger\_TAP).

d. Use the Accessibility Zoom panning gesture to move to the center item on the toolbar; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the left edge of screen (3-Finger\_TAP & SLIDE LEFT or RIGHT).

e. Select the “Bookmarks” Tab (1-Finger\_TAP).

f. Now, select the first “Bookmark” in the list (3-Finger\_TAP & SLIDE LEFT or RIGHT) then (1-Finger\_TAP).

4. Remove a Bookmark:

a. Zoom out to normal view (3-Finger\_DOUBLE TAP).

b. Select the “Remove Bookmark” button (red ribbon) at the top-right corner of Toolbar (1-Finger\_TAP); the bookmark is now removed.

c. Repeat the steps in items 3 and 4 to remove the remaining Bookmarks.

d. When finished, move back to the “Home” screen; press (Home) button.

## **SECTION 3.6: Typing with the “Notes” App**

**Note:** The Notes app allows you to type notes using the on-screen or wireless keyboard connected via Bluetooth. Using the on-screen keyboard with Accessible Zoom isn't as efficient as a wireless keyboard. When using a wireless keyboard the screen image follows the insertion point (cursor), always keeping it in view. When you work with Notes in Landscape orientation you have two panes, a narrow pane to the left with a list of previously created notes and a wider pane with the page for your text. In Portrait orientation you have one pane, which is your text page. To access your list of previous notes, you must activate the “Notes” button.

With an iCloud account you can sync your notes with your other iDevices and computer. Notes can be emailed, as well.

### **Task 1: Launch "Notes"**

1. Go to the “Home” screen by pressing the (Home) button.
2. For tasks 1 and 2 make sure you have the iPad in Landscape orientation.
3. Adjust your zoom IN or OUT until you only have 4 icons visible on the “Home” screen (3-Finger\_DOUBLE TAP & SLIDE UP or DOWN) to zoom and (3-Finger\_TAP & SLIDE ANY DIRECTION) to pan screen.
4. If the Notes app is on page one of the “Home” screen then (3-Finger\_TAP & SLIDE ANY DIRECTION) to pan screen to view Notes. If Notes is not on page one then to move to the “Home” screen page with Notes (1-Finger\_FLICK LEFT or RIGHT) and pan the screen to find Notes (3-Finger\_TAP & SLIDE ANY DIRECTION).
5. Select & Activate the Notes app (1-Finger\_TAP).

### **Task 2: Create 2 Notes and Type with the On-Screen Keyboard**

1. Create note 1: select the “Add a Note” button:
  - a. Use the Accessibility Zoom panning gesture to move to the “Add a Note” button at top-right of page; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the right edge of screen (3-Finger\_TAP & SLIDE LEFT).
  - b. Select the “Add a Note” button (1-Finger\_TAP). This will automatically bring up the on-screen keyboard.
  - c. Use the Accessibility Zoom panning gesture to move down to the keyboard (3-Finger\_TAP & SLIDE UP).

**Note:** If the “Add a Note” button is grayed out/not available, you are in a new note.

- d. Use keys on the on-screen keyboard to type “Sample one” (1-Finger\_TAP). Use the Accessibility Zoom panning gesture to pan around the keyboard as you type (3-Finger\_TAP & SLIDE DOWN ANY DIRECTION).
  - e. Select the “Keyboard” key, located bottom-right corner, to close the keyboard (3-Finger\_TAP & SLIDE DOWN ANY DIRECTION) then (1-Finger\_TAP).
2. Create note 2: select the “Add a Note” button:
    - a. Use the Accessibility Zoom panning gesture to move to the last item at top of page; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the right edge of screen (3-Finger\_TAP & SLIDE LEFT).
    - b. Select the “Add a Note” button (1-Finger\_TAP). This will automatically bring up the on-screen keyboard.
    - c. Use the Accessibility Zoom panning gesture to move down to the keyboard (3-Finger\_TAP & SLIDE UP).

**Note:** If the “Add a Note” button is grayed out/not available, you are in a new note.

- d. Use keys on the on-screen keyboard to type “Sample two” (1-Finger\_TAP). Use the Accessibility Zoom panning gesture to pan around the keyboard as you type (3-Finger\_TAP & SLIDE DOWN ANY DIRECTION).
- e. Select the “Keyboard” key, located bottom-right corner, to close the keyboard (3-Finger\_TAP & SLIDE DOWN ANY DIRECTION) then (1-Finger\_TAP).

**Task 3: Switch between notes**

1. In Landscape orientation, select the note Sample 1:
  - a. Use the Accessibility Zoom panning gesture to view the left edge of screen (3-Finger\_TAP & SLIDE RIGHT), then (1-Finger\_TAP) on note in the list.
2. Rotate the iPad in Portrait orientation and select the note Sample 2:
  - a. Use the Accessibility Zoom panning gesture to move to the “Notes” button at top-left of page; first pan to the top edge of screen (3-Finger\_TAP & SLIDE DOWN), then pan to the left edge of screen (3-Finger\_TAP & SLIDE RIGHT).
  - b. Select the “Notes” button and one of the notes in list (1-Finger\_TAP).

**Task 4: Delete the 2 notes**

1. Use the Accessibility Zoom panning gesture to move to the four buttons at bottom of page; first pan to the bottom edge of screen (3-Finger\_TAP & SLIDE UP), then select the (Delete) button (1-Finger\_TAP).
2. Repeat the steps to delete the second note.



## **PART 4: IPAD WITH VOICEOVER AND THE REFRESHABRAILLE 18**

### **Before We Get Started**

#### **Introduction:**

1. Refreshable Braille Displays:
  - a. Refreshable braille displays are electronic devices used to tactually read text that appears on the screen. They have small pins that form braille cells and that move up and down to show braille from the focused area of the screen. The braille display has anywhere from 12 to 84 cells depending on the model.
  - b. Most braille displays also have controls (buttons and/or switches) that allow you to use the display to drive the device it is connected to, such as a computer or mobile device.
  - c. Some braille displays have 9 braille keys that allow you to insert text on the screen using uncontracted and contracted braille.
  - d. The refreshable braille displays work because the device they are connected to is running a screen reader, such as JAWS or Window Eyes for computers and VoiceOver for iDevices (iPad, iPhone, and iPod Touch) and Mac computers.
2. The iPad and Refreshable Braille Displays:
  - a. The iPad (as well as the iPhone and iPod Touch) will connect to most Bluetooth refreshable braille displays.
  - b. You must have VoiceOver on before the display will work.
  - c. There are general key commands that will work on braille displays with the 9 braille dots 1-2-3-4-5-6-7-8 and space (See Quick Commands List starting on page 78).
  - d. There are additional key commands that are unique to each braille display, as there are with the Refreshabraille 18 (See Quick Commands List starting on page 79).
3. Entering commands on the Refreshabraille 18:
  - a. As you complete the tasks in Part 4, you will be asked to enter braille key commands on the braille display to drive or control the iPad. When entering a command such as (Dots 1-2-5-space) on the braille display, it means to press and release the braille keys 1, 2, 5 and space together at the same time.

### **SECTION 4.1: Physical Controls (iPad & Refreshabraille 18)**

**Note:** All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface. Use the Triple-click Home configuration 1 to turn only VoiceOver on (refer to page 14).

#### **Task 1: Physical Controls (iPad)**

Now do the following to locate the external controls and learn how to turn on and off the iPad.

1. The iPad has a 7/8" (2 cm) border that is either white or black. This border does not respond to touch.
2. To turn on the iPad from shutdown:
  - a. Locate, press & hold the (Sleep/Wake) button for 5 seconds, then release. It's located on left edge, back corner. Wait until VoiceOver makes an announcement, then select the (Slide to Unlock) button.
3. To shut down the iPad:
  - a. Wake up iPad if asleep; press & release the (Home) button.
  - b. Press & hold the (Sleep/Wake) button until VoiceOver says, (Slide to Power off); then release button.
  - c. Activate the selected button (1-Finger\_DOUBLE TAP) on screen.

4. Lock the iPad by putting it to sleep:
  - a. Turn on the iPad. Then press & release the (Sleep/Wake) button.
5. Unlock iPad from sleep:
  - a. After a few seconds the iPad goes to sleep. To wake it up, press and release the (Home) or (Sleep/Wake) button.
6. Locate the following physical controls:
  - a. Side Switch located on back edge, left corner, the edge that is away from your body.
  - b. Volume control located to the right of the (Side Switch) on back edge.
  - c. Head Phone Jack located on left edge, corner closest to your body.
  - d. FaceTime Camera located on left border of screen, opposite the (Home) button.
  - e. iSight Camera located on the underneath side, next to the (Sleep/Wake) button.
  - f. Dock Connector located on right edge, underneath the (Home) button.
7. Use the (Side Switch) to lock screen rotation or mute the sound:
  - a. During training or use by students, it is beneficial to have the (Side Switch) set to “Lock Rotation” in Settings. This locks the screen rotation to prevent unintentional rotation.
  - b. You can change the setting of the (Side Switch) from “Lock Rotation” to “Mute” by going to Settings > General > Use Side Switch To, then check one of the two items.
  - c. Locking and unlocking the screen rotation:
    - i. Slide the (Side Switch) to the left to unlock the screen rotation.
    - ii. Raise the iPad in the vertical position with its edge on table surface.
    - iii. Rotate the iPad so the edge with the (Home) button is touching the table surface. You will notice that the screen rotated right-side up.
    - iv. Again, rotate the iPad back in the landscape orientation position with the (Home) button to the right and use the (Side Switch) to lock the screen rotation.

## **Task 2: Physical Controls (Refreshabraille 18)**

1. Locate the features:
  - a. Braille Display (18 cells)
  - b. Cursor Routing buttons (18)
  - c. Pan Left & Right buttons
  - d. Braille Keys 1-6
  - e. Braille Key 7 (Backspace function)
  - f. Braille Key 8 (Enter function)
  - g. Joystick
  - h. Space Bar
  - i. Power Button:
    - i. Turn on the RB-18, press and hold the (Power) button until it vibrates.
    - ii. Turn off the RB-18, press and hold the (Power) button until it vibrates.
  - j. Aux Space

## **Entering Commands on the Refreshabraille 18 to drive the iPad**

1. During Part 4 you will be asked to enter key commands on the Refreshabraille 18 to drive the iPad. For your convenience this booklet includes both the braille dot configuration and the braille letter or contraction. For example the command to go to the “Home” screen is expressed (Dots 1-2-5-space) [H-space]. The command to turn to the previous page is expressed (Dots 2-4-6-space) [OW-space].
2. When entering a command such as (Dots 1-2-5-space) [H-space] on the braille display, press and release the braille keys 1, 2, 5 and space together.

## SECTION 4.2: Making the Connection (VoiceOver and the Braille Display)

### Task 1: Making the Initial Bluetooth Connection (Pairing)

1. Turn on the Refreshabaille 18:
  - a. Locate the (Power) button on front edge of display.
  - b. Press & Hold the (Power) button until it vibrates & the serial number pops up in braille.
2. Check Battery Level:
  - a. Press the (Pan Right) button once.

**Note:** If the battery is full you will see 3 cells at the end of the display with all 8 pins up. If the battery is low the display will flash "Battery Low" periodically.

3. Turn on the iPad:
  - a. When it is shut down; press & hold the (Sleep/wake) button.
  - b. When it is asleep/locked; press & release the (Power) or (Sleep/wake) button.
4. Turn on VoiceOver:
  - a. Unlock the screen.
  - b. Tap "Settings".
  - c. Tap "General".
  - d. Tap "Accessibility".
  - e. Tap "VoiceOver".
  - f. Tap "VoiceOver" ON/OFF button to turn ON.
5. Pair the Braille Display to the iPad:
  - a. Make sure you have completed item 4 above before continuing with item 5
  - b. On right pane (1-Finger\_TAP).
  - c. To view "Braille" option (3-Finger\_FLICK UP).
  - d. Select "Braille" option (1-Finger\_DOUBLE TAP).
  - e. If you get a prompt to turn on Bluetooth, turn it on by moving to and selecting the "YES" button (1-Finger\_FLICK RIGHT) then (1-Finger\_DOUBLE TAP).
  - f. In the list of Bluetooth devices, select your braille display (1-Finger\_DOUBLE TAP).
  - g. When the on-screen keyboard appears, enter the pairing code 1 2 3 4, then select the "Done" button on the on-screen keyboard (1-Finger\_Double Tap).

**Note:** You have just a few seconds to enter the code and activate the "Done" button.

### Task 2: Once Paired: Making the Bluetooth Connection

1. Start this task with VoiceOver ON and the iPad locked, press (Sleep/Wake) button.
2. Turn on the Refreshabaille 18.
3. Turn on iPad press (Sleep/Wake) button. You should hear the connection sound and see the display refresh itself.

### Task 3: "VoiceOver Help"

**Note:** During this task you will learn how to Start and Stop the Keyboard Help. This feature allows you to press a key command to hear its function without affecting the iPad.

1. Turn ON "VoiceOver Help"; press (Dots 1-3-space).
    - a. Enter the following commands and listen to the key command description.
- Note:** When entering a command such as (Dots 1-2-5-space) on the braille display, press and release the braille keys 1, 2, 5 and space together.
- i. Press (Dots 1-2-5-space) [H-space].
  - ii. Press (Dot 4-space).
  - iii. Press (Dot 1-space).
  - iv. Press (Dots 1-4-5-space) [D-space]; then try pressing (Dot 7-space).

- v. Press (Dots 1-5-space) [E-space] then try pressing (Dot 8-space).
  - vi. Press (Dots 1-3-4-space) [M-space].
  - vii. Press Down on (Joy Stick) as you would a button.
  - viii. Rock Right on the (Joy Stick).
  - ix. Rock Left on the (Joy Stick).
2. Turn OFF "VoiceOver Help"; press (Dots 1-2-space) [B-space].

**Note:** This is the same command that activates the "Back" button or cancels a pop-up in Safari.

## **SECTION 4.3: Navigating the "Home" Screen**

### **Task 1: Navigate the "HOME" screen – Adjust Volume & Speech**

**Note:** During this task you will learn how to use braille display commands to move from one app to another on the "Home" screen, adjust the VOLUME, and turn the SPEECH OFF and ON.

1. Adjust the Volume (Volume) button:
  - a. Increase Volume; press (Dots 3-4-5-space) [AR-space].
  - b. Decrease Volume; press (Dots 1-2-6-space) [GH-space].
  - c. Speech ON and OFF; press (Dots 1-3 4-space).
2. Using the "Rotor" to set the Volume:
 

**Note:** With this method you get the volume increase/decrease percentage.

  - a. Set the Rotor to Volume; press (Dots 5-6-space) or (Dots 2-3-space).
    - i. Increase Volume; press (Dot 3-space).
    - ii. Decrease Volume; press (Dot 6-space).
3. Speech Rate:
  - a. Set the "Rotor" to "Speech Rate" (Dots 5-6-space) or (Dots 2-3-space).
  - b. Increase Speech Rate; press (Dot 3-space).
  - c. Decrease Speech Rate; press (Dot 6-space).
4. Navigate "Home" Screen Pages:
  - a. Go to "Home" Screen; press (Dots 1-2-5-space) [H-space].
  - b. Move to the "Search" Page; press (Dots 2-4-6-space) [OW-space].
  - c. Move to the next page; press (Dots 1-3-5-space) [O-space].
  - d. Move back to page 1; press (Dots 2-4-6-space) [OW-space].
5. Navigate to the next items (app icons):
  - a. Method 1: (Dot 4-space).
  - b. Method 2: (Joystick) rock to the right.
  - c. Method 3: (Pan Right Button).
6. Navigate to the previous items (app icons):
  - a. Method 1: (Dot 1-space).
  - b. Method 2: (Joystick) rock to the left.
  - c. Method 3: (Pan Left Button).
7. Navigate to the "Notes" app (use above methods).
8. Activate and open the "Notes" app:
  - a. Method 1: Press (Cursor Routing Button).

**Note:** When the selected item is on the display you can press any cursor routing button under the letters of its name; works before and after the VoiceOver description message.

  - b. Method 2: Press (Joystick).
  - c. Method 3: Press (Dots 3-6-space).

## SECTION 4.4: Surfing the Internet with Safari

### Task 1: Launch "Safari" from the HOME screen

1. Go to "Home" screen; press (Dots 1-2-5-space) [H-space].
2. Navigate to and open the "Safari" app:
  - a. Select "Safari" app (Dot 4-space) or (Dot 1-space).
  - b. Activate and open "Safari" app; press (Joystick) or (Cursor Routing Button).

### Task 2: Enter web address and launch "www.animalfactguide.com"

#### Commands to Remember:

- Contracted Braille, ON or OFF; press **(Dots 1-2-4-5-space)** [G-space] toggle.
- Jump to the top or bottom of the web page **(Dots 1-2-3-space)** [L] or **(Dots 4-5-6-space)**.
- Navigate to the next or previous item; press **(Dot 4-space)** or **(Dot 1-space)**.
- Launches website after typing address; press **(Dots 1-5-space)** [E-space].
- Delete; press **(Dots 1-4-5-space)** [D-space].
- Back; press **(Dots 1-2-space)** [B-space] or **(Power Button)**.
- Activate an item **(Dots 3-6-space)** or press **(Joystick)** or (Cursor Routing) button.

#### 1. Move to the Address Bar:

- a. Go to top of web page; press (Dots 1-2-3-space) [L-space].
- b. Move to "Address Bar"; press (Dot 4-space) repeatedly.
- c. Enter the "Address Bar"; press (Joystick) or (Cursor Routing Button).

**Note:** Sometimes after the double tap, VoiceOver will

announce the "Back" button. Disregard this and continue

because you are still focused on the "Address Bar" as well as the "Back" button.

d. Now, move to "Clear Text" button; press (Dot 4-space) once or until it announces. Then activate the button; press (Joystick) or (Cursor Routing Button).

**Note:** This step isn't necessary unless you have inserted text that needs to be cleared.

#### 2. Type Web Address:

- a. Turn OFF Contracted Braille; (Dots 1-2-4-5-space) [G-space] toggle.
  - b. Braille the letter "a", then "b", then "c".
  - c. Delete the "b" & "c"; press (Dots 1-4-5-space) [D-space].
  - d. Continue brailing the address "n i m a l f a c t g u i d e . c o m". Use (Dots 4-6) to type a period, because we have contracted braille off.
3. Launch website; press the (Dots 1-5-space) [E-space].
  4. Turn ON Contracted Braille; press (Dots 1-2-4-5-space) [G-space] toggle.

### Task 3: Load web page, "Animal Facts"

1. Move to "Animal Facts" link; press (Dot 4-space) or rock right on (Joystick) repeatedly.
2. Activate the "Animal Facts" link; press (Joystick) or (Cursor Routing Button).

### Task 4: Use the "Rotor" to move by "Headings" – Read (Pause & Resume Speech)

**Notes:** On web pages there are different types of elements, such as text, links, headings, form controls, etc. Choosing the most efficient elements to navigate by will help you find what you are looking for quicker. The "Rotor" control makes it possible to choose which element to navigate.

#### 1. Change the "Rotor" to "Headings":

- a. Make sure you have completed Tasks 2 and 3.
- b. Listen to the number of "Headings" as you change the "Rotor" to "Headings"; press (Dots 5-6-space) or (Dots 2-3-space) repeatedly.

2. Navigating by “Headings” to find your desired animal information:
  - a. Now move down the page by “Headings” to “Cougar”; press (Dot 6-space) repeatedly. Notice/read the braille display as you move from one item to the next.
  - b. Move back up the page by “Headings” to “Atlantic Puffin” (Dot 3-space) repeatedly.
  - c. Activate Heading/Link and launch web page, “Atlantic Puffin”; press (Joystick).
  - d. Move down by “Headings” until you get to “Atlantic Puffin”; press (Dot 6-space).
3. Reading the information:
  - a. Now move to Heading’s paragraph and read it; press (Dot 4-space) three times.
  - b. Pause speech; press (Dots 1-2-3-4-space) [P-space].
  - c. Resume speech; press (Dots 1-2-3-4-space) [P-space].
  - d. Start reading from your location; press (Dots 1-2-3-5-space) [R-space].
  - e. Pause speech; press (Dots 1-2-3-4-space) [P-space].

### **Task 5: Viewing Articles in "Reader"**

**Note:** The “Reader” is a feature that allows you to view an article in a new page without the advertisements, links and sidebar information. During this task you will go to the “Giraffe” webpage and use the “Reader” to view information about the “Giraffe”.

1. Move back to previous webpage with the different animals; press (Dots 1-2-space) [B-space].
2. Move by “Headings” to the “Giraffe” heading/link (Dot 6-space) or (Dot 3-space).
3. Activate the “Giraffe” heading/link to launch webpage; press down on (Joystick).
4. Jump to the top of the web page; press (Dots 1-2-3-space) [L-space].
5. Move across to the “Reader” button (Dot 4-space).
6. Activate the “Reader” button; press down on (Joystick). This opens the “Reader” page.
7. Move by “Headings” to “Giraffe” Heading; press (Dot 6-space) or (Dot 3-space).
8. Read the paragraph of this “Heading” to see how long a giraffe lives in the wild (Dot 4-space).
9. Pause and Resume the speech; press (Dots 1-2-3-4-space) [P-space] repeatedly.
10. Start reading from your location; press (Dots 1-2-3-5-space) [R-space].
11. Start reading from your top of webpage; press (Dots 2-4-5-6-space) [W-space].
12. Close the “Reader” page (Dots 1-2-space) [B-space].

### **Task 6: Use the “Rotor” to move by “Form Controls”**

**Note:** During this Task you will navigate by “Form Controls”. Form controls are elements such as edit boxes, combo/popup boxes, checkboxes, buttons, etc.

1. Change “Rotor” to “Form Controls”; (Dots 5-6-space) or (Dots 2-3-space).
2. Move down the web page by “Form Controls”; (Dot 6-space).
3. Move back up the web page by “Form Controls”; (Dot 3-space).

### **Task 7: Use the braille display instead of speech to read text on web page**

1. Set “Rotor” to “Headings” (Dots 5-6-space) and move to “Giraffe” Heading (Dot 3 or dot 6-space).
2. Turn Speech OFF; press (Dots 1-3-4-space) [M-space] toggle.
3. Pan forward & read braille; press (Right Panning Button) or (Dot 5-space).
4. Pan Back; press (Left Panning Button) or (Dot 2-space).
5. Turn Speech ON; press (Dots 1-3-4-space) [M-space] toggle.

**Task 8: Start Reading from your location – Start Reading from the top**

1. Start reading from your location; press (Dots 1-2-3-5-space) [R-space].
2. Pause the speech; press (Dots 1-2-3-4-space) [P-space].
3. Start reading from the top of page; press (Dots 2-4-5-6-space) [W-space].
4. Pause the speech; press (Dots 1-2-3-4-space) [P-space].

**Task 9: Turn the Screen Curtain ON and OFF**

1. Move to the “Home” screen; press (Dots 1-2-5-space) [H-space].
2. Turn the Screen Curtain ON; press (Dots 1-2-3-4-5-6-space).
  - a. You can now work without anyone seeing what’s on the screen.
  - b. Try it out! Go to the Safari app on the “Home” screen and launch it. Navigate by Headings and then move to the text of the Heading.
3. Turn the Screen Curtain OFF; press (Dots 1-2-3-4-5-6-space).

## SECTION 4.5: iBooks (Reading a Book)

**Note:** During this section you will use the Refresh Braille 18 braille display to navigate a book in the iBooks app. iBooks is a free app that you must download from the App Store. You can download books to iBooks using the “Store” button in iBooks. You can read books in portrait or landscape orientation. In Landscape you will get two pages on the screen and in portrait orientation you only get one page. Let’s use portrait orientation so we have only one page on the screen.

### Task 1: Set the iPad to the Portrait Orientation

1. Go to the “Home” screen by pressing the (Home) button.
2. Slide the (Side Switch) to the left to unlock it.
3. Tilt the iPad up on its edge and rotate it so the (Home) button is at the bottom.
4. Slide the (Side Switch) back down to relock the rotation, then lay the iPad back on the table.

### Task 2: Launch “iBooks”

1. Go to the “Home” screen (Dots 1-2-5-space) [H-space] or press the (Home) button.
2. Move to the next page of the “Home” screen (Dots 1-3-5-space) [O-space].
3. Select the iBooks app:
  - a. Jump to top of screen (Dots 1-2-3-space) [L-space].
  - b. Move to “iBooks” app; press (Dot 4-space) repeatedly.
  - c. Activate the iBooks app; press (Joystick).

### Task 3: Library (Opening Books)

**Note:** The iBooks library has two main views, “Group View” (bookshelf look) and “List View”. Both views have five buttons across the top on the toolbar; they are: Store, Collections, Group View, List View and Edit. The “Store” button takes you to the Internet to search for books to download. The “Collections” button allows you to switch between your collections of books, purchased books, PDF files, etc. The “Group View” and “List View” buttons will arrange the books. The Group View has the books standing up on shelves, showing their covers. In the List View the books are in one vertical list and you have four additional buttons across the bottom of the screen. They are: Bookshelf, Titles, Authors and Categories. Selecting the “Edit” button allows you to move or delete books.

1. Do the following to open the iBooks “Library”:

**Note:** If it is already open you will not see the “Library” button and you can move to item 2 in this task.

- a. Make sure you have completed Task 2 before completing this task.
- d. Activate the “Library” button; press (Joystick). VoiceOver will announce the “Store” which is the first button on the toolbar at the top.

2. Do the following to select & open the book “iPad User Guide”:

**Note:** If the Guide isn’t in iBooks, select the “Store” button and download the app. It’s free!

- a. Move to and select the book “iPad User Guide”; press (Dot 4-space) repeatedly.
- b. Activate the selected book, “iPad User Guide” by pressing the (Joystick) once or pressing a (Cursor Routing) button under a braille cell displaying the book’s name. The book should now be open.



#### **Task 4: Navigate the book's "Table of Contents"**

1. Move to and activate the "Table of Contents" button; (Dot 4-space), then press (Joystick).
2. Jump to the end of the "Table of Contents" button; press (Dots 4-5-6-space).
3. Move up TOC list to "Accessibility" (Dot 1-space) or rock left on (Joystick).
4. Activate TOC item "Accessibility" (Joystick) or (Cursor Routing Button).
5. Pause the speech; press (Dots 1-2-3-4-space) [P-space].

#### **Task 5: Turning & Reading the pages with SPEECH**

1. Turn & Read the Next Page:
  - a. Your focus should be on the page of text, not the toolbar. If not, move to the text; press (Dot 1-space or Dot 4-space).
  - b. Now turn forward by pages; (Dots 1-3-5-space) [O-space] three or four times. Listen for a few seconds as VoiceOver reads the page.  
**Note:** The page turns without announcing the page number and starts reading the page.
  - c. Pause the speech; press (Dots 1-2-3-4-space) [P-space].
  - d. Turn to the previous page; press (Dots 2-4-6-space) [OW-space]. Listen for a few seconds as VoiceOver reads the page.
  - e. Pause the reading; press (1-2-3-4-space) [P-space].

#### **Task 6: Turning Pages using "Page Chooser"**

1. Jump to the end of the page; press (Dots 4-5-6-space).
2. Move to the "Page Chooser"; press (Dot 1-space), repeatedly.
3. Turn the pages forward to page 180; press (Dot 6-space), repeatedly.
4. Turn the pages backwards to page 175; press (Dot 3-space), repeatedly.
5. Move to the text on page and listen; press (Dot 1-space).
6. Pause the speech; press (Dots 1-2-3-4-space) [P-space].

#### **Task 7: Turning & Reading the pages with Braille Display (NO SPEECH)**

1. Turn OFF Speech; (Dots 1-3-4-space) [M-space] toggle.
2. Read the page with the braille display;
  - a. Method 1: Panning Buttons
    - i. Read forwards: (Right Panning Button) repeatedly.
    - ii. Read backwards: (Left Panning Button) repeatedly.
  - b. Method 2: Braille Dot keys
    - i. Read forwards: (Dot 5-space) repeatedly.
    - ii. Read backwards: (Dot 2-space) repeatedly.
3. Turn ON Speech: (Dots 1-3-4-space) [M-space] toggle.

#### **Task 8: Bookmarks**

**Notes:** You don't have to set a bookmark when you close the book; iBooks remembers your page and returns you to it when you open the book again.

1. Add A Bookmark:
  - a. Jump to the top; (Dots 1-2-3-space) [L-space].
  - b. Move to the "Add a Bookmark" button; (Dot 4-space).
  - c. Activate the "Add a Bookmark" button; press (Joystick) or (Cursor Routing Button).
2. Remove A Bookmark:
  - a. Jump to the top; (Dots 1-2-3-space) [L-space].
  - b. Move to the "Remove a Bookmark" button; (Dot 4-space).
  - c. Activate "Remove Bookmark" button; press (Joystick) or (Cursor Routing Button).

## **SECTION 4.6: Typing with the “Notes” App**

**Note:** The Notes app allows you to type notes using the on-screen keyboard, an external Bluetooth keyboard, or a refreshable braille display. When you work in Notes in Landscape orientation you have two panes; a narrow pane to the left with a list of previously created notes and a wider pane with the page for your text. In Portrait orientation you have to select “Notes” button to access the list of previously created notes; you have one page which is your text page.

### **Task 1: Launch “Notes” & Start a New Note**

1. Go to the Home screen; press (Home) button.
2. Select & Activate the Notes app.
  - a. Move to the “Notes” app; press (Dot 4-space).
  - b. Activate the “Notes” app; press (Joystick).
3. Start a new note:
  - a. Move to the “Add” button; press (Dots 4-space).
  - b. Activate the “Add” button; press (Joystick).

### **Task 2: Writing contracted & uncontracted words with the Braille Display**

**Note:** Contracted braille is inserted after a pause or if a space or ending punctuation mark is typed.

1. Writing words:
    - a. Set the braille display to uncontracted braille; (Dots 1-2-4-5-space) [G-space] toggle.
    - b. Type the words using uncontracted braille “the ipad is cool”
- Note 1:** To type capitals include (Dot 7) with letter; to type a period (Dots 4-6).
- Note 2:** To delete to the left press (Dots 1-4-5-space) [D-space] or (Dot 7-space).
- c. Move to a New Line; press (Dots 1-5-space) [E-space].
  - d. Now set the display to contracted braille; press (Dots 1-2-4-5-space) [G-space] toggle.
  - e. Enter the “Tab” command to indent this line of text; press (Dots 2-3-4-5-space) [T-space].
  - f. Type the sentence using contracted braille “VoiceOver makes the iPad easy to use.”

**Note:** Write contracted braille with a steady flow. If you pause too long after typing the letter “V”, the word “Very” will auto-insert. The braille sign for capitals and periods can be used.

#### **2. Editing your text:**

##### **a. Deleting words:**

- i. Delete the last word, use, in this sentence; press (Dots 1-4-5-space) [D-space] repeatedly.
- ii. Now type, have fun.

##### **b. Insert text:**

- i. Route your cursor to letter “f” of “fun” by pressing the cursor routing button under the letter “f” of “fun”.
- ii. Now write the words, a lot of, and then press (Space). You should have changed your sentence to read, “VoiceOver makes the iPad easy to have a lot of fun.”

##### **c. Navigating your text:**

- i. To jump back and forth between the beginning and end of your text, press the (Joystick) down as a button, repeatedly.
- ii. Now jump to the beginning of your text (Joystick) down as a button.
- iii. Pan forward by pressing the (Pan Right) button repeatedly until you have read to the end of your text.
- iv. Now pan backwards by pressing the (Pan Left) button repeatedly until you have read to the beginning of your text.

**Note:** You can navigate by lines, words, or characters by first setting the “Rotor” to lines, words, or characters (Dots 5-6-space) and then navigate using (Dot 3 or dot 6-space).

3. Delete a note:

- a. Move to the “Delete” icon; press (Dot 4-space). You may first have to move to your note in the “Notes List” and select it before the “Delete” icon is available.
- b. Activate the first “Delete” button; press (Joystick) down as a button.
- c. Now activate second “Delete” Button; press (Joystick) down as a button.

## **PART 5: IPAD WITH VOICEOVER AND THE FOCUS 40 BLUE (CLASSIC)**

### **Before We Get Started**

#### **Introduction:**

1. Refreshable Braille Displays:
  - a. Refreshable braille displays are electronic devices used to tactually read text that appears on the screen. They have small pins that form braille cells and that move up and down to show braille from the focused area of the screen. The braille display has anywhere from 12 to 84 cells, depending on the model.
  - b. Most braille displays also have controls (buttons and/or switches) that allow you to use the display to drive the device it is connected to, such as a computer or mobile device.
  - c. Some braille displays have 9 braille keys that allow you to insert text on the screen using uncontracted and contracted braille.
  - d. The refreshable braille displays work because the device they are connected to is running a screen reader, such as JAWS or Window Eyes for computers and VoiceOver for iDevices (iPad, iPhone, and iPod Touch) and Mac computers.
2. The iPad and Refreshable Braille Displays:
  - a. The iPad (as well as the iPhone and iPod Touch) will connect to most Bluetooth refreshable braille displays.
  - b. You must have VoiceOver on before the display will work.
  - c. There are general key commands that work on braille displays with the 9 braille dot keys, dots 1-2-3-4-5-6-7-8 and space (See Quick Commands List starting on page 78).
  - d. There are additional key commands that are unique to each braille display, such as the Focus 40 Blue Classic (see “Quick Commands List” on page 80).
3. Entering commands on the Focus 40 Blue:
  - a. As you complete the tasks in Part 5, you will be asked to enter braille key commands on the braille display to drive or control the iPad. When entering a command such as (Dots 1-2-5-space) on the braille display, it means to press and release the braille keys 1, 2, 5 and space together at the same time.

### **SECTION 5.1: Physical Controls (iPad & Focus 40 Blue Classic)**

**Note:** All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface. Use the Triple-click Home configuration 1 to turn only VoiceOver on (refer to page 14).

#### **Task 1: Physical Controls (iPad)**

Now do the following to locate the external controls and learn how to turn on and off the iPad.

1. The iPad has a 7/8” (2 cm) border that is either white or black. This border does not respond to touch.
2. To turn on the iPad from shutdown:
  - a. Locate, press & hold the (Sleep/Wake) button for 5 seconds, then release. It’s located on left edge, back corner. Wait until VoiceOver makes an announcement, then select the (Slide to Unlock) button.
3. To shut down the iPad:
  - a. Wake up iPad if asleep; press & release the (Home) button.
  - b. Press & hold the (Sleep/Wake) button until VoiceOver says, (Slide to Power off); then release button.
  - c. Activate the selected button (1-Finger\_DOUBLE TAP) on screen.

4. Lock the iPad by putting it to sleep:
  - a. Turn on the iPad. Then press & release the (Sleep/Wake) button.
5. Unlock iPad from sleep:
  - a. After a few seconds the iPad goes to sleep. To wake it up, press and release the (Home) or (Sleep/Wake) button.
6. Locate the following physical controls:
  - a. Side Switch located on back edge, left corner, the edge that is away from your body.
  - b. Volume control located to the right of the (Side Switch) on back edge.
  - c. Head Phone Jack located on left edge, corner closest to your body.
  - d. FaceTime Camera located on left border of screen, opposite the (Home) button.
  - e. iSight Camera located on the underneath side, next to the (Sleep/Wake) button.
  - f. Dock Connector located on right edge, underneath the (Home) button.
7. Use the (Side Switch) to lock screen rotation or mute the sound:
  - a. During training or use by students, it is beneficial to have the (Side Switch) set to “Lock Rotation” in Settings. This locks the screen rotation to prevent unintentional rotation.
  - b. You can change the setting of the (Side Switch) from “Lock Rotation” to “Mute” by going to Settings > General > Use Side Switch To, then check one of the two items.
  - c. Locking and unlocking the screen rotation:
    - i. Slide the (Side Switch) to the left to unlock the screen rotation.
    - ii. Raise the iPad in the vertical position with its edge on table surface.
    - iii. Rotate the iPad so the edge with the (Home) button is touching the table surface. You will notice that the screen rotated right-side up.
    - iv. Again, rotate the iPad back in the landscape orientation position with the (Home) button to the right and use the (Side Switch) to lock the screen rotation.

## **Task 2: Physical Controls (Focus 40 Blue "Classic")**

1. Locate the features:
  - a. Braille keys 1, 2, 3, 4, 5, 6, 7, 8
  - b. 40 braille cells
  - c. 40 Cursor Routing buttons
  - d. Left/Right Whiz Wheels
  - e. Row of 40 Hotkeys
  - f. Left/Right Panning buttons
  - g. Left/Right Rocker Bars
  - h. Left/Right Selector buttons
  - i. Space & 2 Shift keys
  - j. Power button:
    - i. Turn on the Focus 40 Blue, press and hold the (Power) button.
    - ii. Turn off the Focus 40 Blue, press and hold the (Power) button.

## **Entering Commands on the Focus 40 Blue Classic to drive the iPad**

1. During Part 5 you will be asked to enter key commands on the Focus to drive the iPad. For your convenience this booklet includes both the braille dot configuration and the braille letter or contraction. For example the command to go to the “Home” screen is expressed (Dots 1-2-5-space) [H-space]. The command to turn to the previous page is expressed (Dots 2-4-6-space) [OW-space].
2. When entering a command such as (Dots 1-2-5-space) [H-space] on the braille display, press and release the braille keys 1, 2, 5 and space together.

## SECTION 5.2: Making the Connection (VoiceOver and the Braille Display)

### Task 1: Making the Initial Bluetooth Connection (Pairing)

1. Turn on the Focus 40 Blue:
  - a. Locate the (Power) button on left side of the display.
  - b. Press & Hold the (Power) button.
2. Check Battery Level:
  - a. To display the Battery Level when the display is on, but not connected to the iPad; press and release the (Power) button.
  - b. To check the battery level when the display is in use, press and release the (Power) button. To return to normal operation; press a Cursor Router or Navrow button.
3. Turn on the iPad:
  - a. When it is shut down; press & hold the (Sleep/wake) button.
  - b. When it is asleep/locked; press & release the (Power) or (Sleep/wake) button.
4. Turn on VoiceOver:
  - a. Unlock the screen.
  - b. Tap "Settings".
  - c. Tap "General".
  - d. Tap "Accessibility".
  - e. Tap "VoiceOver".
  - f. Tap "VoiceOver" ON/OFF button, to turn ON.
5. Pair the Braille Display to the iPad:
  - a. Make sure you have completed item 4 above before continuing with item 5.
  - b. On right pane (1-Finger\_TAP).
  - c. To view "Braille" option (3-Finger\_FLICK UP).
  - d. Select "Braille" option (1-Finger\_DOUBLE TAP).
  - e. Turn on Bluetooth if you get a prompt by moving to and selecting the "YES" button (1-Finger\_FLICK RIGHT) then (1-Finger\_DOUBLE TAP).
  - f. In the list of Bluetooth devices, select your braille display (1-Finger\_DOUBLE TAP).
  - g. When the on-screen keyboard appears, enter the pairing code 0 0 0 0, then select the "Done" button on the on-screen keyboard button (1-Finger\_DOUBLE TAP).

**Note:** You have just a few seconds to enter the code and activate the "Done" button.

### Task 2: Once paired: Making the Bluetooth Connection

1. Start this task with VoiceOver ON and the iPad locked, press (Sleep/Wake) button.
2. Turn on the Focus 40 Blue.
3. Turn on iPad press (Sleep/Wake) button. You should hear the connection sound and see the display refresh itself.

### Task 3: "VoiceOver Help"

**Note:** During this task you will learn how to Start and Stop the Keyboard Help. This feature allows you to press a key command to hear its function without affecting the iPad.

1. Turn ON "VoiceOver Help"; press (Dots 1-3-space) [K-space].
  - a. Enter the following commands and listen to the key command description.
    - i. Press (Dots 1-2-5-space) [H-space].
    - ii. Press (Dot 4-space).
    - iii. Press (Dot 1-space).
    - iv. Press (Dots 1-3-4-space) [M-space].
    - v. Press (Dots 1-4-5-space) [D-space] and then press (Dot 7-space) [Same Function].
    - vi. Press (Dots 1-5-space) [E-space] and then press (Dot 8-space) [Same Function].

- vii. Press (Right Selector).
- viii. Press (Left Selector).
- ix. Press down and then up (Right Rocker).
- x. Press down and then up (Left Rocker).
- 2. Turn OFF “VoiceOver Help”;
  - a. Method 1: press (Dots 1-2-space) [B-space].
  - b. Method 2: press (Left Selector) button.

**Note:** This is the same command that activates the “Back” button or cancels a pop-up in Safari.

## **SECTION 5.3: Navigating the “Home” Screen**

### **Task 1: Navigate the "HOME" screen – Adjust Volume & Speech**

**Note:** During this task you will learn how to use braille display commands to move from one app to another on the “Home” screen, adjust the VOLUME, and turn the SPEECH OFF and ON.

- 1. Adjust the Volume (Volume) button:
  - a. Increase Volume (Dots 3-4-5-space).
  - b. Decrease Volume (Dots 1-2-6-space).
  - c. Speech ON/OFF (Dots 1-3-4-space).
- 2. Using the “Rotor” to set the Volume:
 

**Note:** With this method you get the volume increase/decrease percentage.

  - a. Set the Rotor to Volume (Dots 5-6-space) or (Dots 2-3-space).
    - i. Increase Volume (Dot 3-space).
    - ii. Decrease Volume (Dot 6-space).
- 3. Speech Rate:
  - a. Set the “Rotor” to “Speech Rate” (Dots 5-6-space) or (Dots 2-3-space).
  - b. Increase Speech Rate (Dot 3-space).
  - c. Decrease Speech Rate (Dot 6-space).
- 4. Navigate “Home” Screen Pages:
  - a. Go to “Home” Screen (Dots 1-2-5-space) [H-space].
  - b. Move to the “Search” Page (Dots 2-4-6-space) [OW-space].
  - c. Move to Page 2 of the “Home” Screen:
    - i. Method 1: (Dots 1-3-5-space) [O-space].
    - ii. Method 2: Rock DOWN on (Right Rocker).
  - d. Move back to Page 1 of the “Home” Screen:
    - i. Method 1: (Dots 2-4-6-space) [OW-space].
    - ii. Method 2: Rock UP on (Right Rocker).
- 5. Navigate to the next items (app icons):
  - a. Method 1: (Dot 4-space).
  - b. Method 2: Right (WhizWheel) roll toward your body.
  - c. Method 3: (Pan Right Button).
- 6. Navigate to the previous items (app icons):
  - a. Method 1: (Dot 1-space).
  - b. Method 2: Right (WhizWheels) roll away from your body.
  - c. Method 3: (Pan Left Button).
- 7. Navigate to the “Notes” app icon (use above methods).

8. Activate and open the “Notes” app:

a. Method 1: (Cursor Routing Buttons) to open app.

**Note:** When the selected item is on the display you can press any cursor routing button above the letters of its name; works before and after the VoiceOver description message.

b. Method 2: (Whiz Wheels) down like a button.

c. Method 3: (Dots 3-6-space).



## SECTION 5.4: Surfing the Internet with Safari

### Task 1: Launch "Safari" from the "HOME" screen

1. Go to "Home" screen (Dots 1-2-5-space) [H-space].
2. Navigate to and open the "Safari" app:
  - a. Select "Safari" app (Dot 4-space) or (Dot 1-space).
  - b. Activate and open "Safari" app; press down (Whiz Wheel) or (Cursor Routing Button).

### Task 2: Enter web address and launch "www.animalfactguide.com"

1. Move to the Address Bar:
  - a. Go to top of web page (Dots 1-2-3-space) [L-space].
  - b. Move to "Address Bar"; press (Dot 4-space) repeatedly.
  - c. Enter "Address Bar"; press (Cursor Routing) or press down (WhizWheels) as a button.  
**Note:** Sometimes after the double tap, VoiceOver will announce the "Back" button. Disregard this and continue because you are still focused on the "Address Bar" as well as the "Back" button.
  - d. Now, move to "Clear Text" button; press (Dot 4-space) once or until it is announced. Then activate the button; press (Cursor Routing Button) or down (WhizWheels) as a button.  
**Note:** This step isn't necessary unless you have inserted text that needs to be cleared.
2. Type Web Address:
  - a. Turn OFF Contracted Braille; press (Dots 1-2-4-5-space) [G-space].
  - b. Braille the letter "a", then "b", then "c".
  - c. Delete the "b" & "c"; press (Dots 1-4-5-space) [D-space].
  - d. Continue brailleing the address "n i m a l f a c t g u i d e . c o m". Use (Dots 4-6) to type a period, because we have contracted braille off.
3. Launch website: press the (Dots 1-5-space) [E-space].

### Task 3: Navigate the Elements: Load the web page, "Animal Facts"

1. Move to "Animal Facts" link; press (Dot 4-space) or rotate (WhizWheel) toward your body.
2. Activate "Animal Facts" link; press (Cursor Routing Button) or press down on (WhizWheel).

### Task 4: Use the "Rotor" to move by "Headings" – Read (Pause & Resume Speech)

**Notes:** On web pages there are different types of elements, such as text, links, headings, form controls, etc. Choosing the most efficient elements to navigate by will help you find what you are looking for quicker. The "Rotor" control makes it possible to choose which element to navigate.

1. Change the "Rotor" to "Headings":
  - a. Make sure to complete Tasks 2 & 3.
  - b. Listen to the number of "Headings" as you change the "Rotor" to "Headings"; press (Dots 5-6-space) or (Dots 2-3-space) repeatedly.
2. Navigating by "Headings" to find a desired animal:
  - a. Move down the page by "Headings" to "Cougar"; press (Dot 6-space).
  - b. Now move back up the page by "Headings" to "Bonobo"; press (Dot 3-space).
  - c. Activate the Heading/Link and load the web page "Bonobo"; press down (Whiz Wheel).
  - d. Move down by "Headings" until you get to "Bonobo"; (Dot 6-space).
3. Reading the information:
  - a. Move to and listen to the "Heading's" paragraph; press (Dot 4-space) two or three times.
  - b. Pause speech; press (Dots 1-2-3-4-space) [P-space].
  - c. Resume reading; press (Dots 1-2-3-4-space) [P-space].
  - d. Pause speech; press (Dots 1-2-3-4-space) [P-space].

- e. Start reading from your current position; press (Dots 1-2-3-5-space) [R-space].
- f. Pause speech; press (Dots 1-2-3-4-space) [P-space].

### **Task 5: Viewing Articles in "Reader"**

**Note:** The "Reader" is a feature that allows you to view an article in a new page without the advertisements, links and sidebar information. During this task you will go to the "Cheetah" webpage and use the "Reader" to view information about the "Cheetah".

1. Move back to previous webpage with the different animals (Dots 1-2-space) [B-space] or (Left Select Button).
2. Move by "Headings" to the "Cheetah" heading/link (Dot 6-space) or (Dot 3-space).
3. Activate the "Cheetah" heading/link to launch webpage; press down on (Whiz Wheel).
4. Jump to the top of the web page (Dots 1-2-3-space) [L-space].
5. Move across to the "Reader" button; rotate right (Whiz Wheel) toward body.
6. Activate the "Reader" button; press down on one (Whiz Wheel).
7. Set the "Rotor" to "Headings" and move by "Headings" to "Cheetah" (Dots 5-6-space) then (Dot 6-space) or (Dot 3-space).
8. Move to and listen to the paragraph of this "Heading" to see how fast the Cheetah runs (Dot 4-space).
9. Pause and Resume the speech; press (Dots 1-2-3-4-space) [P-space] repeatedly.
10. Start reading from your location (Dots 1-2-3-5-space) [R-space].
11. Start reading from your top of webpage (Dots 2-4-5-6-space) [W-space].
12. Pause the speech (Dots 1-2-3-4-space) [P-space].
13. Close the "Reader" page (Dots 1-2-space) [B-space] or press (Left Selector) button.

### **Task 6: Use the "Rotor" to move by "Form Controls":**

**Note:** During this Task you will navigate just by "Form Controls". Form controls are elements such as edit boxes, combo/popup boxes, checkboxes, buttons, etc.

1. Change "Rotor" to "Form Controls"; (Dots 5-6-space) or (Dots 2-3-space).
2. Move down the web page by "Form Controls"; (Dot 6-space).
3. Move back up the web page by "Form Controls"; (Dot 3-space).

### **Task 7: Use the braille display instead of speech to read text on web page**

1. Set "Rotor" to "Headings" (Dots 5-6-space) and move to "Cheetah" Heading (Dot 3 or dot 6-space).
  2. Turn Speech OFF; press (Dots 1-3-4-space) [M-space] toggle.
  3. Pan forward & read braille; press (Pan Right Button) repeatedly or (Dot 5-space) repeatedly.
  4. Pan Back; press (Pan Left Button) or (2-space).
- Note:** Panning right or panning left allows you to read what's on the screen, 40 cells at a time.
5. Turn Speech ON; press (Dots 1-3-4-space) [M-space] toggle.

### **Task 8: Scrolling the Viewing Pages of the Webpage**

1. Scroll down to the next viewing pages; rock down on (Left Rocker Bar) repeatedly.
2. Scroll up to the previously viewed pages; rock up on (Left Rocker Bar) repeatedly.

**Task 9: Close the Curtain**

1. Move to the “Home Screen”; press (Dots 1-2-5-space) [H-space]
2. Turn Screen Curtain ON; press (Dots 1-2-3-4-5-6-space).
  - a. You can now work without anyone seeing what’s on the screen.
  - b. Try it out! Go to the Safari app on the “Home Screen” and launch it. Navigate by Headings and then move to the text of the Heading.
3. Turn Screen Curtain OFF; press (Dots 1-2-3-4-5-6-space).

## SECTION 5.5: iBooks (reading a book)

**Note:** During this section you will use the Focus 40 Blue Classic braille display to navigate a book in the iBooks app. iBooks is a free app you must download from the App Store. You can download books to iBooks using the “Store” button in iBooks. You can read books in portrait or landscape orientation. In Landscape two pages are displayed on the screen and in portrait orientation you only have one page displayed. Let’s use portrait orientation so only one page is displayed.

### Task 1: Set the iPad to the Portrait Orientation

1. Go to the “Home” screen by pressing the (Home) button.
2. Slide the (Side Switch) to the left to unlock it.
3. Tilt the iPad up on its edge and rotate it so the (Home) button is at the bottom.
4. Slide the (Side Switch) back down to relock the rotation, then lay the iPad back on the table.

### Task 2: Launch “iBooks”

1. Go to the “Home” screen (Dots 1-2-5-space) [H-space] or press the (Home) button on iPad.
2. Select the “Home” screen page with the iBooks icon.
  - a. To move to the next “Home” screen page, press (Dots 1-3-5-space) [O-space]. To move to the previous “Home” screen page; press (Dots 2-4-6-space) [OW-space].

**Note:** You can also rock up or down on the (Right Rocker) to change “Home” screen pages.

3. Select and Activate the iBooks app:
  - a. Jump to top of screen (Dots 1-2-3-space) [L-space].
  - b. Move to “iBooks” app:
    - i. Method 1: press (Dot 4-space) or (Dot 1-space) repeatedly.
    - ii. Method 2: Right (WhizWheel) roll toward or away from your body.
    - iii. Method 3: press (Pan Right Button) or (Pan Left Button).
  - c. Activate the iBooks app; press (Cursor Routing Button) or press (WhizWheel).

### Task 3: Library (Opening Books)

**Note:** The iBooks library has two main views, “Group View” (bookshelf look) and “List View”. Both views have five buttons across the top on the toolbar. They are: Store, Collections, Group View, List View and Edit. The “Store” button takes you to the Internet to search for books to download. The “Collections” button allows you to switch between your collections of books, purchased books, PDF files, etc. The “Group View” and “List View” buttons arrange the books. The Group View has the books standing up on shelves, showing their covers. In the List View the books are in one vertical list and you have four additional buttons across the bottom of the screen. They are: Bookshelf, Titles, Authors and Categories. Selecting the “Edit” button allows you to move or delete books.

1. Open the iBooks “Library”:

**Note:** If it is already open you will not see the “Library” button and you can move to item 2 in this task.

- a. Make sure you have completed Task 2 before completing this task.

- b. Activate the “Library” button; press (Cursor Routing Button) or press (WhizWheel). VoiceOver will announce the “Store” button; it’s the first button on the toolbar at the top.

2. Do the following to select & open the book “iPad User Guide”:

**Note:** If the Guide isn’t in iBooks, select the “Store” button and download the app. It’s free!

- a. Move to and select the book “iPad User Guide”; press (Dot 4-space) repeatedly.

b. Activate the selected book, “iPad User Guide” by pressing the (WhizWheel) once or pressing a (Cursor Routing) button above a braille cell displaying the book’s name. The book should now be open.

#### **Task 4: Navigate the book's “Table of Contents”**

1. Move to “Table of Contents” button; rotate the right (WhizWheel) away or toward your body.
2. Activate the “Table of Contents” button; press down on the same right (WhizWheel).
3. Jump to the end of the “Table of Contents” button; press (Dots 4-5-6-space).
4. Move up TOC list to “Accessibility”; rotate the right (WhizWheel) away from your body.
5. Activate TOC item “Accessibility”; press the right (WhizWheel).
6. Pause the speech; press (Dots 1-2-3-4-space) [P-space].

#### **Task 5: Turning & Reading the pages with SPEECH**

1. Turn & Read the Next Page:
  - a. Your focus should be on the page of text, if not, move your focus to the text; press (Dot 1-space) or (Dot 4-space), then pause the speech; press (Dots 1-2-3-4-space) [P-space].
  - b. Now turn forward by pages; press (Dots 1-3-5-space) [O-space] or (Right Rocker Down) repeatedly. Listen for a few seconds as VoiceOver reads the page.  
**Note:** The page turns without announcing the page number and starts reading the page.
  - c. Pause the speech; press (Dots 1-2-3-4-space) [P-space].
  - d. Turn to the previous page; press (Dots 2-4-6-space) [OW-space] or (Right Rocker Up). Listen for a few seconds as VoiceOver reads the page.
  - e. Pause the speech; press (1-2-3-4-space) [P-space].

#### **Task 6: Turning Pages using "Page Chooser"**

1. Jump to the end of the page; press (Dots 4-5-6-space).
2. Move to the “Page Chooser”; press (Dot 1-space), repeatedly.
3. Turn the pages forward to page 180; press (Dot 6-space), repeatedly.
4. Turn the pages backwards to page 175; press (Dot 3-space), repeatedly.  
**Note:** As you turn the pages, VoiceOver announces the page numbers.
5. Move to the text on page and listen; press (Dot 1-space).
6. Pause the speech; press (Dots 1-2-3-4-space) [P-space].

#### **Task 7: Turning & Reading the pages with Braille Display (NO SPEECH)**

1. Turn OFF Speech; press (Dots 1-3-4-space) [M-space].
2. Read the page with the braille display:
  - a. Method 1; Panning Buttons
    - i. Read forwards; press (Pan Right Button) repeatedly.
    - ii. Read backwards; press (Pan Left Button) repeatedly.
  - b. Method 2: Braille Dot keys
    - i. Read forwards; press (Dot 5-space) repeatedly.
    - ii. Read backwards; press (Dot 2-space) repeatedly.
3. Turn ON Speech; press (Dots 1-3-4-space) [M-space].

## Task 8: Bookmarks

**Notes:** You don't have to set a bookmark when you close the book; iBook remembers your page and returns you to it when you open the book again.

1. Add A Bookmark:
  - a. Jump to the top; press (Dots 1-2-3-space) [L-space].
  - b. Move to the "Add a Bookmark" button; press (Dot 4-space).
  - c. Activate the "Add a Bookmark" button; press (WhizWheel) or (Cursor Routing Button).
2. Remove A Bookmark:
  - a. Jump to the top; press (Dots 1-2-3-space) [L-space].
  - b. Move to the "Remove a Bookmark" button; press (Dot 4-space).
  - c. Activate "Remove Bookmark" button; press (WhizWheel) or (Cursor Routing Button).

## SECTION 5.6: Typing with the "Notes" App

**Note:** The Notes app allows you to type notes using the on-screen keyboard, an external Bluetooth keyboard, or a refreshable braille display. When you work in Notes in Landscape orientation you have two panes; a narrow pane to the left with a list of previously created notes and a wider pane with the page for your text. In Portrait orientation you have to select "Notes" button to access the list of previously created notes; you have one page which is your text page.

### Task 1: Launch "Notes" & Start a New Note

1. Select & Activate the Notes app:
  - a. Go to the Home screen; press (Home) button.
  - b. Move to the "Home" screen page with "Notes"; press (Right Rocker) down or up.
  - c. Move to the "Notes" app; rotate (WhizWheel) down or up.
  - d. Activate the "Notes" app; press down (WhizWheel).
2. Start a new note:
  - a. Move to and activate the "Add" button; press (Dot 4-space), then press (Dots 3-6-space).

### Task 2: Writing contracted & uncontracted words with the Braille Display

**Note:** Contracted braille is inserted after a pause or if a space or ending punctuation mark is typed.

1. Writing words:
  - a. Set the braille display to uncontracted braille; (Dots 1-2-4-5-space) [G-space] toggle.
  - b. Type the words using uncontracted braille "The ipad is cool."

**Note 1:** To type capitals include (Dot 7) or (Space) with letter; to type a period (Dots 4-6).

**Note 2:** To delete to the left press (Dots 1-4-5-space) [D-space] or (Dot 7-space).

- c. Move to a New Line; press (Dots 1-5-space) [E-space].
- d. Now set the display to contracted braille; press (Dots 1-2-4-5-space) (G-space) toggle.
- e. Type the sentence using contracted braille "VoiceOver makes the iPad easy to use."

**Note:** Write contracted braille with a steady flow. If you pause too long after typing the letter "V", the word "Very" will auto-insert. The braille sign for capitals and periods can be used.

2. Editing your text:
  - a. Deleting words:
    - i. Delete the last word, use, in this sentence; press (Dots 1-4-5-space) [D-space] repeatedly.
    - ii. Now type, have fun.
  - b. Insert text:
    - i. Route your cursor to letter "f" of "fun" by pressing the cursor routing button under the letter "f" of "fun".

ii. Now write the words, a lot of, and then press (Space). You should have changed your sentence to read, "VoiceOver makes the iPad easy to have a lot of fun."

c. Navigating your text:

i. To jump back and forth between the beginning and end of your text; press (Dots 3-6-space), repeatedly.

ii. Now jump to the beginning of your text; press (Dots 3-6-space).

iii. Pan forward by pressing the (Pan Right) button repeatedly until you have read to the end of your text.

iv. Now pan backwards by pressing the (Pan Left) button repeatedly until you have read to the beginning of your text.

**Note:** You can navigate by lines, words, or characters by first setting the "Rotor" to lines, words, or characters (Dots 5-6-space) and then navigate using (Dot 3 or dot 6-space).

3. Delete your Note:

a. Move to the "Delete" button; press (Dot 4-space or Dot 1-space).

b. Press (Dots 3-6-space) slowly, twice, to delete the "Delete" and "Delete Note" buttons.

**Note:** If the "Delete" button isn't available, use the above commands and move to and activate the "Note" button. Then select your note from list and repeat the steps.

## **PART 6: IPAD WITH VOICEOVER AND APEX AS A BRAILLE DISPLAY**

### **Before We Get Started**

#### **Introduction:**

##### **1. Refreshable Braille Displays:**

- a. Refreshable braille displays are electronic devices used to tactually read text that appears on the screen. They have small pins that form braille cells and that move up and down to show braille from the focused area of the screen. The braille display has anywhere from 12 to 84 cells depending on the model.
- b. Most braille displays also have controls (buttons and/or switches) that allow you to use the display to drive the device it is connected to, such as a computer or mobile device.
- c. Some braille displays have 9 braille keys that allow you to insert text on the screen using uncontracted and contracted braille.
- d. The refreshable braille displays work because the device they are connected to is running a screen reader, such as JAWS or Window Eyes for computers and VoiceOver for iDevices (iPad, iPhone, and iPod Touch) and Mac computers.

##### **2. The iPad and Refreshable Braille Displays:**

- a. The iPad (as well as the iPhone and iPod Touch) will connect to most Bluetooth refreshable braille displays.
- b. You must have VoiceOver on before the display will work.
- c. There are general key commands that will work on braille displays with the 9 braille keys, dots 1-2-3-4-5-6-7-8 and space (See Quick Commands List starting on page 78).
- d. There are additional key commands that are unique to each braille display, as there are with the Apex as a Braille Display (see page 80 in the Quick Commands List).

##### **3. Entering commands when the Apex is used as Braille Display:**

- a. As you complete the tasks in Part 6, you will be asked to enter braille key commands on the braille display to drive or control the iPad. When asked to press (Dots 1-3-4-space) on the braille display, you will press the braille keys 1, 3, 4 and the space key, at the same time and release them.

### **Section 6.1: Physical Controls (Apex as a Braille Display)**

Note: All instructions, unless otherwise directed, assume that the iPad is positioned in the landscape orientation with the (Home) button to the right and iPad laying on a flat surface. Use the Triple-click Home configuration 1 to turn only VoiceOver on (refer to page 14).

#### **Task 1: Physical Controls (iPad)**

Now do the following to locate the external controls and learn how to turn on and off the iPad.

1. The iPad has a 7/8" (2 cm) border that is either white or black. This border does not respond to touch.
2. To turn on the iPad from shutdown:
  - a. Locate, press & hold the (Sleep/Wake) button for 5 seconds, then release. It's located on left edge, back corner. Wait until VoiceOver makes an announcement, then select the (Slide to Unlock) button.
3. To shut down the iPad:
  - a. Wake up iPad if asleep; press & release the (Home) button.
  - b. Press & hold the (Sleep/Wake) button until VoiceOver says, (Slide to Power off); then release button.
  - c. Activate the selected button (1-Finger\_DOUBLE TAP) on screen.
4. Lock the iPad by putting it to sleep:



- a. Turn on the iPad. Then press & release the (Sleep/Wake) button.
- 5. Unlock iPad from sleep:
  - a. After a few seconds the iPad goes to sleep. To wake it up press and release the (Home) or (Sleep/Wake) button.
- 6. Locate the following physical controls:
  - a. Side Switch located on back edge, left corner, the edge that is away from your body.
  - b. Volume control located to the right of the (Side Switch) on back edge.
  - c. Head Phone Jack located on left edge, corner closest to your body.
  - d. FaceTime Camera located on left border of screen, opposite the (Home) button.
  - e. iSight Camera located on the underneath side, next to the (Sleep/Wake) button.
  - f. Dock Connector located on right edge, underneath the (Home) button.
- 7. Use the (Side Switch) to lock screen rotation or mute the sound:
  - a. During training or use by students, it is beneficial to have the (Side Switch) set to “Lock Rotation” in Settings. This locks the screen rotation to prevent unintentional rotation.
  - b. You can change the setting of the (Side Switch) from “Lock Rotation” to “Mute” by going to Settings > General > Use Side Switch To, then check one of the two items.
  - c. Locking and unlocking the screen rotation:
    - i. Slide the (Side Switch) to the left to unlock the screen rotation.
    - ii. Raise the iPad in the vertical position with its edge on table surface.
    - iii. Rotate the iPad so the edge with the (Home) button is touching the table surface. You will notice that the screen rotated right-side up.
    - iv. Again, rotate the iPad back in the landscape orientation position with the (Home) button to the right and use the (Side Switch) to lock the screen rotation.

## **Task 2: Physical Controls (Apex As A Braille Display)**

**Note:** The Braille Note Apex is a powerful PDA/note-taker with many features such as a word processor, web browser, and book reader. To learn more about these and the many other features go to [www.humanware.com](http://www.humanware.com). This booklet will address only the use of the Apex as a refreshable braille display with the iPad (iDevices).

- 1. Locate the features:
  - a. Braille Dot Keys 1-6
  - b. Dot 7 (Backspace function)
  - c. Dot 8 (Enter function)
  - d. Space
  - e. 18/32Cursor Routing Buttons
  - f. 18/32 Braille Cells
  - g. Thumb keys 1-4
  - h. ON / OFF button
  - i. Scroll Wheel

**Note:** Entering Commands on the Apex to drive the iPad

- 1. During Part 6 you will be asked to enter key commands on the Apex to drive the iPad. For your convenience this booklet includes both the braille dot configuration and the braille letter or contraction. For example the command to go to the “Home” screen is expressed (Dots 1-2-5-space) [H-space]. The command to turn to the previous page is expressed (Dots 2-4-6-space) [OW-space].
- 2. When entering a command such as (Dots 1-2-5-space) [H-space] on the braille display, press and release the braille keys 1, 2, 5 and space together.

## SECTION 6.2: Making the Connection (VoiceOver – Apex As A Braille Display)

### Task 1: Making the Initial Bluetooth Connection (Pairing)

1. Turn on the Braille Note Apex and check the Battery Level:
    - a. On the Apex, go to “Options”; press (Dots 1-3-5-space) [O-space].
    - b. Write the letter “P”; press (Dots 1-2-3-4) and listen.
  2. On the Apex, turn on Bluetooth and place in “Braille Terminal” mode:
    - a. Go to “Options”; press (Dots 1-3-5-space) [O-space].
    - b. Go to the “Connectivity” menu; write the letter “C”; press (Dots 1-4).
    - c. Then select “Bluetooth”; write the letter “B”; press (Dots 1-2), then write the letter “Y”; (Dots 1-3-4-5-6) for yes.
    - d. Next, go back to the “Main Menu”; press (Dots 1-2-3-4-5-6-space). Don’t search for Bluetooth devices, if asked.
    - e. Turn on “Braille Terminal” mode; write the letter “T”, press (Dots 2-3-4-5).
    - f. Set the “Braille Terminal” port to Bluetooth; write the letter “B” (Dots 1-2) and then press (Dot 8) for the (Enter) function.
  3. Turn on the iPad:
    - a. When it is shut down; press & hold the (Sleep/wake) button.
    - b. When it is asleep/locked; press & release the (Power) or (Sleep/wake) button.
  4. Turn on VoiceOver:
    - a. Unlock the screen.
    - b. Tap “Settings”.
    - c. Tap “General”.
    - d. Tap “Accessibility”.
    - e. Tap “VoiceOver”.
    - f. Tap “VoiceOver” ON/OFF button, to turn ON.
  5. Pair the Braille Display to the iPad:
    - a. Make sure you have completed item 4 above before continuing with item 5.
    - b. On right pane (1-Finger\_TAP).
    - c. To view “Braille” option (3-Finger\_FLICK UP).
    - d. Select “Braille” option (1-Finger\_DOUBLE TAP).
    - e. If you get a prompt to turn on Bluetooth, turn it on by moving to and selecting the “YES” button (1-Finger\_FLICK RIGHT) then (1-Finger\_DOUBLE TAP).
    - f. In the list of Bluetooth devices, select your braille display (1-Finger\_DOUBLE TAP).
    - g. When the on-screen keyboard appears, enter the pairing code 0 0 0 0, then select the “Done” button on the on-screen keyboard button (1-Finger\_DOUBLE TAP).
- Note:** You have just a few seconds to enter the code and activate the “Done” button.

### Task 2: Once paired: Making the Bluetooth Connection

1. Start this task with VoiceOver ON and the iPad locked, press (Sleep/Wake) button.
2. Turn on the Apex and make sure its Bluetooth is turned on.
3. Place the Apex in the “Braille Terminal” mode:
  - a. Go to the Main Menu; (Dots 1-2-3-4-5-6-space).
  - b. Turn on Braille Terminal Mode; (Dots 2-3-4-5) [T] then (Enter).
4. Turn on iPad press (Sleep/Wake) button. You should hear the connection sound and see the display refresh itself.

### **Task 3: “VoiceOver Help”**

**Note:** During this task you will learn how to Start and Stop the Keyboard Help. This feature allows you to press a key command to hear its function without affecting the iPad.

1. Turn ON “VoiceOver Help”; press (Dots 1-3-space) [K-space].

**Important Note:** There are four braille commands that require you to first use the bypass command (Dots 4-5-6-8-space) before entering them. Practice using the following command that requires the bypass command:

- a. To use the Enter function; first press the bypass (Dots 4-5-6-8-space) command then (Dots 1-5-space) [E-space].
2. Enter the following commands and listen to the key command description:
  - a. Press (Dots 4-5-6-8-space) then try (Dots 1-2-5-space) [H-space].
  - b. Press (Dots 1-2-3-space) [L-space] then try (Dots 4-5-6-space).
  - c. Press (Dot 4-space) then try (Dot 1-space).
  - d. Press (Dot 1-4-5-space) [D-space].
  - e. Press (Dots 1-3-4-space) [M-space].
  - f. Press (Dots 3-6-space).
  - g. Press Down on a (Cursor Router button).
  - h. Press (Thumb key 1); then try (Thumb key 4).
  - i. Press together (Thumb keys 2-3); then try (Thumb keys 1-4).
  - j. Press together (Thumb keys 1-2); then try (Thumb keys 3-4).
3. Turn OFF “VoiceOver Help”; press (Dots 1-2-space) [B-space].

## **SECTION 6.3: Navigating the “Home” Screen**

### **Task 1: Navigate the "HOME" screen – Adjust Volume & Speech**

**Note:** During this task you will learn how to use braille display commands to move from one app to another on the “Home” screen, adjust the VOLUME, and turn the SPEECH OFF and ON.

1. Volume:

- a. Increase Volume; (Dots 3-4-5-space) [AR-space].
- b. Decrease Volume; (Dots 1-2-6-space) [GH-space].
- c. Speech ON/OFF; press (Dots 1-3 4-space) toggle [M-space].

2. Using the “Rotor” to set the Volume:

**Note:** With this method you get the volume increase/decrease percentage.

- a. Set the Rotor to Volume (Dots 5-6-space) or (Dots 2-3-space).

- i. Increase Volume (Dot 3-space).
- ii. Decrease Volume (Dot 6-space).

3. Speech Rate:

- a. Set the “Rotor” to “Speech Rate”; (Dots 5-6-space) or (Dots 2-3-space).
- b. Increase Speech Rate; (Dot 3-space).
- c. Decrease Speech Rate; (Dot 6-space).

4. Navigate “Home” Screen Pages:

- a. Go to “Home” Screen; by-pass (Dots 4-5-6-8-space) then (Dots 1-2-5-Space) [H-space] or (Thumb keys 2-3).
- b. Move to the “Search” page; (Dots 2-4-6-space) [OW-space].
- c. Move to Pages 1 & 2 on Home screen; by-pass (Dots 4-5-6-8-space) then (Dots 1-3-5-space) [O-space].
- d. Move back to Page 1 of “Home” screen; (Dots 2-4-6-space) [OW-space].

5. Navigate App Icons Forwards:
  - a. Method 1: (Dot 4-space).
  - b. Method 2: (Thumb 3).
6. Navigate App Icons Backwards:
  - a. Method 1: (Dot 1-space).
  - b. Method 2: (Thumb 2).
7. Move to the “Notes” app icon.
8. Activate the “Notes” app:
  - a. Method 1: Press (Cursor Routing Button) to open app.
  - b. Method 2: Press (Dots 3-6-space) to open app.

## SECTION 6.4: Surfing the Internet with Safari

### Task 1: Launch "Safari" from the HOME screen

1. Go to "Home" screen; (Thumb keys 2-3) or press bypass (Dots 4-5-6-8-space) then (Dots 1-2-5-Space) [H-space].
2. Navigate to and open the "Safari" app:
  - a. Select "Safari" app; (Dot 4-space) or (Dot 1-space).
  - b. Activate and open "Safari" app; press (Dots 3-6-space) or (Cursor Routing Button).

### Task 2: Enter web address and launch "www.animalfactguide.com"

1. Move to the Address Bar:
  - a. Go to top of web page; press (Dots 1-2-3-space) [L-space].
  - b. Move to "Address Bar"; press (Dot 4-space) repeatedly.
  - c. Enter the "Address Bar"; press (Dots 3-6-space) or (Cursor Routing Button).

**Note:** Sometimes after the double tap, VoiceOver will announce the "Back" button. Disregard this and continue to the next item.

  - d. In the "Address Bar" move to "Clear Text" button; press (Dot 4-space) once; then press (Dots 3-6-space) or (Cursor Routing Button) to activate.

**Note:** This step isn't necessary unless you have inserted text that needs to be cleared.
2. Type Web Address:
  - a. Turn OFF Contracted Braille; press (Dots 1-2-4-5-space) [G-space] toggle.
  - b. Braille the letter "a", then "b", then "c".
  - c. Delete the "b" & "c"; press (Dots 1-4-5-space) [D-space] twice.
  - d. Continue braille the address "n i m a l f a c t g u i d e . c o m". Use (Dots 4-6) to type a period, because we have contracted braille off.
3. Launch website:
  - a. Press (Dots 4-5-6-8-space) then (Dots 1-5-space) [E-space] to launch website.

### Task 3: Navigate the Elements: Load the web page, "Animal Facts"

1. Move to "Animal Facts" link; (Dot 4-space) or press (Thumb 4).
2. Activate the "Animal Facts" link; press (Dots 3-6-space) or (Cursor Routing Button).

### Task 4: Use the "Rotor" to move by "Headings" – Read (Pause & Resume Speech)

**Notes:** On web pages there are different types of elements, such as text, links, headings, form controls, etc. Choosing the most efficient elements to navigate by will help you find what you are looking for quicker. The "Rotor" control makes it possible to choose which element to navigate.

1. Change the "Rotor" to "Headings":
  - a. Make sure to complete Tasks 2 and 3.
  - b. Listen to the number of "Headings" as you change the "Rotor" to "Headings"; press (Dots 5-6-space) or (Dots 2-3-space) repeatedly.
2. Navigating by "Headings" to find a desired animal:
  - a. Move down the page by "Headings" to "Cougar"; press (Dot 6-space) repeatedly.
  - b. Now move back up the page by "Headings" to "Bald Eagle"; (Dot 3-space) repeatedly.
  - c. Activate the Heading/Link and load the web page "Bald Eagle"; press (Dots 3-6-space).
  - d. Move down the page by "Headings" until you get to "Bald Eagle"; press (Dot 6-space).
3. Reading the information:
  - a. Move to and listen to the "Heading's" paragraph; press (Dot 4-space) two or three times.
  - b. Pause speech; press (Dots 1-2-3-4-space) [P-space].
  - c. Resume reading; press (Dots 1-2-3-4-space) [P-space].

- d. Pause speech; press (Dots 1-2-3-4-space) [P-space].
- e. Start reading from your current position; press (Dots 1-2-3-5-space) [R-space].
- f. Jump to top of web page and start speech reading; press (Dots 2-4-5-6-space) [W-space].
- g. Pause speech; press (Dots 1-2-3-4-space) [P-space].

### **Task 5: Viewing Articles in "Reader"**

**Note:** The "Reader" is a feature that allows you to view an article in a new page without the advertisements, links and sidebar information. During this task you will go to the "Cheetah" webpage and use the "Reader" to view information about the "Cheetah".

1. Move back to previous webpage with the different animals; press (Dots 1-2-space) [B-space].
2. Move by "Headings" to the "Cheetah" heading/link; (Dots 6-space) or (Dots 3-space).
3. Activate the "Cheetah" heading/link; press (Dots 3-6-space) or (Cursor Routing).
4. Jump to the top of the web page; press (Dots 1-2-3-space) [L-space].
5. Move across to the "Reader" button; (Dot 4-space) or (Thumb 4) repeatedly.
6. Activate the "Reader" button; press (Dots 3-6-space) or (Cursor Routing). This opens the "Reader" page with the main article.
7. Set the "Rotor" to "Headings" and move by "Headings" to "Conservation Status"; press (Dots 5-6-space) then (Dots 6-space) or (Dots 3-space).
8. Move to and listen to the paragraph of this "Heading" to see how many cheetahs live in the wild today; press (Dot 4-space).
9. Close the "Reader" format; press (Dots 1-2-space) [B-space].

### **Task 6: Use the "Rotor" to move by "Form Controls":**

**Note:** During this Task you will navigate by "Form Controls". Form controls are elements such as edit boxes, combo/popup boxes, checkboxes, buttons, etc.

1. Change "Rotor" to "Form Controls"; press (Dots 5-6-space) or (Dots 2-3-space).
2. Move down the web page by "Form Controls"; press (Dot 6-space).
3. Move back up the web page by "Form Controls"; press (Dot 3-space).

### **Task 7: Use the braille display instead of speech to read text on web page**

1. Set "Rotor" to "Headings" (Dots 5-6-space) and move to "Bald Eagle" Heading (Dot 3 or dot 6-space).
2. Turn Speech OFF; press (Dots 1-3-4-space) [M-space].
3. Pan forward & read braille; press (Thumb 3) or (Dot 5-space) repeatedly.
4. Pan Back; press (Thumb 2) or (2-space) repeatedly.
5. Turn Speech ON; press (Dots 1-3-4-space) [M-space].

### **Task 8: Turn ON and OFF the Curtain**

1. Turn ON Curtain; press by-pass (Dots 4-5-6-8-space) then (Dots 1-2-3-4-5-6-space) toggle.
  - a. You can now work without anyone seeing what's on the screen.
2. Turn OFF Curtain; press (Dots 4-5-6-8-space) then (Dots 1-2-3-4-5-6-space) toggle.

## SECTION 6.5: iBooks (reading a book)

**Note:** During this section you will use the Braille Note Apex as a braille display to navigate a book in the iBooks app. iBooks is a free app you must download from the App Store. You can download books to iBooks using the “Store” button in iBooks. You can read books in portrait or landscape orientation. In Landscape two pages are displayed on the screen and in portrait orientation you only have one page displayed. Let’s use portrait orientation so we have only one page on the screen.

### Task 1: Set the iPad to the Portrait Orientation

1. Go to the “Home” screen by pressing the (Home) button.
2. Slide the (Side Switch) to the left to unlock it.
3. Tilt the iPad up on its edge and rotate it so the (Home) button is at the bottom.
4. Slide the (Side Switch) back down to relock the rotation, then lay the iPad back on the table.

### Task 2: Launch “iBooks”

1. Go to the Home screen:
  - a. Method 1: Press (Thumb keys 2-3).
  - b. Method 2: Press by-pass (Dots 4-5-6-8-space) then (Dots 1-2-5-space) [H-space].
  - c. Press the (Home) button on the iPad.
2. Select the “Home” screen page with the iBooks icon.
  - a. To move to the next “Home” screen page, press bypass (Dots 4-5-6-8-space) then (Dots 1-3-5-space) [O-space]. To move to the previous “Home” screen page, press (Dots 2-4-6-space) [OW-space].
3. Select and Activate the iBooks app:
  - a. Now, jump to top of “Home” screen page; press (Dots 1-2-3-space) [L-space].
  - b. Move to the “iBooks” app; (Dot 4-space) repeatedly.
  - c. Activate the iBooks app; press (Dots 3-6-space) or (Cursor Routing Button).

### Task 3: Library (Opening Books)

**Note:** The iBooks library has two main views, “Group View” (bookshelf look) and “List View”. Both views have five buttons across the top on the toolbar. They are: Store, Collections, Group View, List View and Edit. The “Store” button takes you to the Internet to search for books to download. The “Collections” button allows you to switch between your collections of books, purchased books, PDF files, etc. The “Group View” and “List View” buttons arrange the books. The Group View has the books standing up on shelves, showing their covers. In the List View the books are in one vertical list and you have four additional buttons across the bottom of the screen. They are: Bookshelf, Titles, Authors and Categories. Selecting the “Edit” button allows you to move or delete books.

1. Open the iBooks “Library”:

**Note:** If it is already open you will not see the “Library” button and you can move to item 2 in this task.

- a. Make sure you have completed Task 2 before completing this task.
  - b. Activate the “Library” button; press (Cursor Routing Button) or press (Dots 3-6-space). VoiceOver will announce the “Store” button; it’s the first button on the toolbar at the top.
2. Do the following to select & open the book “iPad User Guide”:

**Note:** If the Guide isn’t in iBooks, select the “Store” button and download the app. It’s free!

- a. Move to and select the book “iPad User Guide”; press (Dot 4-space) repeatedly.

b. Activate the selected book, "iPad User Guide" by pressing the (Dots 3-6-space) once or pressing a (Cursor Routing) button above a braille cell displaying the book's name. The book should now be open.

#### **Task 4: Navigate the book's "Table of Contents"**

1. Move to "Table of Contents" button; press (Dot 4-space) or (Dot 1-space).
2. Activate the "Table of Contents" button; (Dots 3-6-space).
3. Jump to the end of the "Table of Contents" button; press (Dots 4-5-6-space).
4. Move up TOC list to "Accessibility"; press (Dot 1-space).
5. Activate TOC item "Accessibility"; press (Dots 3-6-space).
6. Pause the speech; press (Dots 1-2-3-4-space) [P-space].

#### **Task 5: Turning & Reading the pages with SPEECH**

1. Turn & Read the Next Page:
  - a. Your focus should be on the page of text, if not, move your focus to the text; press (Dot 1-space) or (Dot 4-space), then pause the speech; press (Dots 1-2-3-4-space) [P-space].
  - b. Now turn forward by pages; first the bypass command (Dots 4-5-6-8-space) then (Dots 1-3-5-space) [O-space] three or four times. Listen for a few seconds as VoiceOver reads the page. You must use the bypass command before entering [O-space] each time.  
**Note:** The page turns without announcing the page number and starts reading the page.
  - c. Pause the speech; press (Dots 1-2-3-4-space) [P-space].
  - d. Turn to the previous page; press (Dots 2-4-6-space) [OW-space]. Listen for a few seconds as VoiceOver reads the page.
  - e. Pause the speech; press (1-2-3-4-space) [P-space].

#### **Task 6: Turning Pages using "Page Chooser"**

1. Jump to the end of the page; press (Dots 4-5-6-space).
2. Move to the "Page Chooser"; press (Dot 1-space), repeatedly.
3. Turn the pages forward to page 180; press (Dot 6-space), repeatedly.
4. Turn the pages backwards to page 175; press (Dot 3-space), repeatedly.  
**Note:** As you turn the pages, VoiceOver announces the page numbers.
5. Move to the text on page and listen; press (Dot 1-space).
6. Pause the speech; press (Dots 1-2-3-4-space) [P-space].

#### **Task 7: Turning & Reading the pages with Braille Display (NO SPEECH)**

1. Turn OFF Speech; press (Dots 1-3-4-space) [M-space].
2. Read the page with the braille display:
  - a. Method 1: Panning Buttons
    - i. Read forwards; press (Pan Right Button) repeatedly.
    - ii. Read backwards; press (Pan Left Button) repeatedly.
  - b. Method 2: Braille Dot keys
    - i. Read forwards; press (Dot 5-space) repeatedly.
    - ii. Read backwards; press (Dot 2-space) repeatedly.
3. Turn ON Speech; press (Dots 1-3-4-space) [M-space].



## **Task 8: Bookmarks**

**Notes:** You don't have to set a bookmark when you close the book; iBooks remembers your page and returns you to it when you open the book again.

### 1. Add A Bookmark:

- a. Jump to the top; press (Dots 1-2-3-space) [L-space].
- b. Move to the "Add a Bookmark" button; press (Dot 4-space).
- c. Activate the "Add a Bookmark" button; press (Dots 3-6-space).

### 2. Remove A Bookmark:

- a. Jump to the top; press (Dots 1-2-3-space) [L-space].
- b. Move to the "Remove a Bookmark" button; press (Dot 4-space).
- c. Activate "Remove Bookmark" button; press (Dots 3-6-space).

## SECTION 6.6: Typing with the “Notes” App

**Note:** The Notes app allows you to type notes using the on-screen keyboard, an external Bluetooth keyboard, or a refreshable braille display. When you work in Notes in Landscape orientation you have two panes; a narrow pane to the left with a list of previously created notes and a wider pane with the page for your text. In Portrait orientation you have to select “Notes” button to access the list of previously created notes; you have one page which is your text page.

### Task 1: Launch “Notes” & Start a New Note

1. Select & Activate the Notes app:
  - a. Go to the “Home” screen; press (Home) button or (Thumb keys 2-3).
  - b. Move to the “Home” screen page with the “Notes” icon; to move to the next page, first press the bypass (Dots 4-5-6-8-space) then (Dots 1-3-5-space) [O-space]. To move to previous page, press (Dots 2-4-6-space) [OW-space].
  - c. Move to “Notes” app; (Dot 4-space or Dot 1-space) or (Thumb key 4 or Thumb key 1).
  - d. Activate the “Notes” app; (Dots 3-6-space) or (Cursor Routing Button).
2. Start a new note:
  - a. Move to and activate the “Add” button; (Dot 4-space) or (Dot 1-space), then (Dots 3-6-space) to activate.

### Task 2: Writing contracted & uncontracted words with the Braille Display

**Note:** Contracted braille is inserted after a pause or if a space or ending punctuation mark is typed.

1. Writing words:
  - a. Set the braille display to uncontracted braille; (Dots 1-2-4-5-space) [G-space] toggle.
  - b. Type the sentence using uncontracted braille, “The iPad is great.”

**Note 1:** To type capitals include (Dot 7) with letter; to type a period (Dots 4-6).

**Note 2:** To delete to the left press (Dots 1-4-5-space) [D-space] or (Dot 7-space).

- c. Move to a New Line; press (Dots 4-5-6-8-space) then (Dots 1-5-space) [E-space].
- d. Now, set the display to contracted braille; (Dots 1-2-4-5-space) [G-space] toggle.
- e. Type the sentence using contracted braille “Voiceover makes the iPad easy to use.”

**Note:** Write contracted braille with a steady flow. If you pause too long after typing the letter “V”, the word “Very” will auto-insert. The braille sign for capitals and periods can be used.

#### 2. Editing your text:

##### a. Deleting words:

- i. Delete the last word, use, in this sentence; press (Dots 1-4-5-space) [D-space] repeatedly.
- ii. Now type, have fun.

##### b. Insert text:

- i. Route your cursor to letter “f” of “fun” by pressing the cursor routing button under the letter “f” of “fun”.
- ii. Now write the words, a lot of, and then press (Space). You should have changed your sentence to read, “VoiceOver makes the iPad easy to have a lot of fun.”

##### c. Navigating your text:

- i. To jump back and forth between the beginning and end of your text; press (Dots 3-6-space), repeatedly.
- ii. Now jump to the beginning of your text; press (Dots 3-6-space).
- iii. Pan forward by pressing (Thumb key 3) repeatedly until you have read to the end of your text.

iv. Now pan backwards by pressing (Thumb key 2) repeatedly until you have read to the beginning of your text.

**Note:** You can navigate by lines, words, or characters by first setting the “Rotor” to lines, words, or characters (Dots 5-6-space) and then navigate using (Dot 3 or dot 6-space).

3. Delete your note:

a. Move to the “Delete” button; press (Dot 4-space or Dot 1-space).

b. Press (Dots 3-6-space) slowly, twice, to delete the “Delete” and “Delete Note” buttons.

Note: If the “Delete” button isn’t available, use the above commands and move to and activate the “Note” button. Then select your note from list and repeat the steps.

## **PART 7: OTHER ACCESSIBILITY FEATURES (LARGE TEXT, INVERTED COLORS, GUIDED ACCESS)**

**Note:** The iPad Accessibility Booklet assumes you have completed one or more of the previous Parts 1-6 to acquire the basic skills necessary to navigate the Settings app and to launch iBooks, Safari and Notes. If you need help with these skills, refer to the previous Parts.

### **SECTION 7.1: Accessibility Feature "Large Text"**

**Note:** the "Large Text" feature will allow you to increase the font size up to 56-point text in alerts, Calendar, Contacts, Mail, Messages, and Notes.

#### **Task 1: Turning on the "Large Text" feature**

1. Go to Settings.
2. Go to General.
3. Go to Accessibility.
4. Select the Large Text option to open its menu and select a desired text size.

#### **Task 2: Using "Large Text" with Notes**

1. Go to the "Home" screen and launch Notes.
2. Select a New Note and type a few sentences to experience the "Large Text" feature.
3. Go back to Settings, General, Accessibility to turn OFF the "Large Text" feature.

### **SECTION 7.2: Accessibility Feature: "Inverted Colors"**

**Note:** The "Inverted Colors" feature allows the user to switch the colors on the screen to a high contrast or negative image appearance. Many (low vision) users like this feature.

#### **Task 1: Turning ON the "Inverted Colors" feature**

1. Go to Settings.
2. Go to General.
3. Go to Accessibility.
4. Select the "Inverted Colors" button to turn ON "Inverted Colors".

#### **Task 2: Using "Inverted Colors" with iBooks & Safari**

1. Go to the "Home" screen and launch iBooks.
2. Open a book to experience the "Inverted Colors" feature.
3. Go to the "Home" screen and launch Safari.
4. Go to a desired website to experience the "Inverted Colors" feature.

#### **Task 3: Turning OFF the "Inverted Colors" feature**

1. Go to Settings.
2. Go to General.
3. Go to Accessibility.
4. Select the "Inverted Colors" on/off button to turn OFF "Inverted Colors".

## **SECTION 7.3: Accessibility Feature: “Guided Access”**

**Note:** Guided Access helps the user to stay on task when using an app. The feature allows you to keep the user from leaving a desired app and limits access to controls within the app. During the following tasks you are going to set up the iPad with Guided Access to help the user from accidentally closing the book she is reading.

### **Task 1: Turning ON the "Guided Access" feature**

1. Go to Settings.
2. Go to General.
3. Go to Accessibility.
4. Select the “Guided Access” option to open its menu.
5. Select the “Off/On” button to expand the menu.
6. Select the “Set Passcode” button and enter the code, 1 2 3 4, twice.
- a. Note: Now you are ready to select your app.

### **Task 2: Applying Guided Access to a book in iBooks**

1. Go to the “Home” screen and launch iBooks.
2. In iBooks, open the book “iPad User Guide For iOS 6”.
3. Select and open the “Table of Contents” button and scroll down the menu to select the “Accessibility” chapter.
4. Triple-click the (Home) button and select “Guided Access” from the pop-up menu.
5. Draw a box around area to be restricted. Once you lift your finger off the screen a shaded box is displayed.
6. Select the “Start” button to start Guided Access.
7. Touch the shaded areas and notice you don’t have access to these areas.
8. Turn the pages (1-Finger\_SLIDE LEFT/RIGHT).
9. Turn OFF Guided Access by pressing the (Home) button 3 times quickly, then enter the passcode, 1 2 3 4.
- a. Note: At this point you can select the circled “x” to delete the shaded areas or press the (End) button to end the session at this time.
10. Select the (End) button to end the Guided Access session.

## **APPENDIX A (QUICK COMMANDS LIST)**

### **VOICEOVER**

#### **Speech**

1. VoiceOver Help:
  - a. Turn on VoiceOver on.
  - b. Turn on VoiceOver Practice:
    - i. Go to Settings > Accessibility > VoiceOver
    - ii. Select the “VoiceOver Practice” button.
    - iii. Touch the screen and then practice the gestures.
    - iv. Select the “Done” button in top-right corner of screen.
2. Speech ON/OFF
  - a. If Zoom is unchecked in Settings (3-Finger\_DOUBLE TAP) toggle.
  - b. If Zoom is checked in Settings (3-Finger\_TRIPLE TAP) toggle.
3. Speak an item:
  - a. (1-Finger\_TAP).
4. Adjust speech rate:
  - a. Access “Rotor”; (2-Finger\_Rotate) to select “Speech Rate”.
  - b. Increase Speech Rate: (1-Finger\_FLICK UP).
  - c. Decrease Speech Rate: (1-Finger\_FLICK DOWN).
5. Pause and resume speech:
  - a. (2-Finger\_TAP) toggle.
6. Start reading from the top of screen:
  - a. (2-Finger\_FLICK UP).
7. Start reading from current position:
  - a. (2-Finger\_FLICK DOWN).

#### **NAVIGATION**

1. To select an Item:
  - a. (1-Finger\_TAP).
2. To activate a selected Item:
  - a. (1-Finger\_DOUBLE TAP) Once the desired item is selected, double tap anywhere.
3. To scroll a vertical list:
  - a. Scroll Up: (3-Finger\_SWIPE DOWN).
  - b. Scroll Down: (3-Finger\_SWIPE UP).
4. Go to Next or Previous page:
  - a. Next Page: (3-Finger\_SWIPE RIGHT).
  - b. Previous Page: (3-Finger\_SWIPE LEFT).

## ADVANCE VOICEOVER GESTURES

1. Dragging icons on the “Home” screen:

**Note:** This allows you to move icons around and to create folders. To create a folder, drag one icon onto another icon.

- a. Go to the “Home” screen; press (Home) button.
- b. Select the desired icon; (1-Finger\_TAP).
- c. Place icons in “Jiggle” mode (1-Finger\_DOUBLE TAP & HOLD) anywhere and without lifting your finger, drag the icon to the desired location. VoiceOver will announce your column and row location.
- d. Lift finger when you have your desired location.

2. (2-Finger\_SPLIT-TAP) select and activating an item:

- a. Use (1-Finger\_TAP & HOLD) to select an item and while stilling holding the finger on the selected item (1-Finger\_TAP) with another finger.

3. Activate the “Back” button or cancel pop-ups, lists, etc.:

- a. Slide two fingers back and forth in a “Z” pattern (2-Finger\_SCRUB).

4. Open and select an item from the “Item Chooser”:

- a. (2-Finger\_Triple Tap).
- b. Then (1-Finger\_FLICK RIGHT or LEFT) to move through list.
- c. Lastly, (1-Finger\_DOUBLE TAP) to activate the item.

5. Screen curtain ON/OFF:

- a. VoiceOver only checked in “Settings” (3-Finger\_TRIPLE TAP).
- b. Both VoiceOver and Zoom checked in “Settings” (3-Finger\_4 TAPS).

6. Multitasking gestures: Use 4 or 5 fingers to:

- a. Go to the “Home” screen (4/5-Finger\_PINCH).
- b. Reveal the Multitasking Bar (4/5-Finger\_FLICK UP) to reveal Multitasking Bar
- c. Switch between apps that are open (4/5-Finger\_FLICK LEFT or RIGHT).

7. Vertical navigation:

- a. Set the “Rotor” to “Vertical Navigation” (2-Finger\_ROTATE).
- b. Use (1-Finger\_FLICK UP or DOWN).

8. Scroll continuously through a list:

- a. Select an item in a list (1-Finger\_TAP).
- b. Then (1-Finger\_DOUBLE TAP & HOLD).
- c. Lastly, (1-Finger\_FLICK UP or DOWN) to scroll.

9. Announce the Status Bar:

**Note:** the “Status Bar” has the Wi-Fi signal strength, time, battery level, etc.

- a. Select the “Status Bar” by (1-Finger\_TAP) at the top of the screen.

10. Announce additional information:

- a. To get additional information about the page (3-Finger\_TAP).

## **COMMON BRAILLE DISPLAY COMMANDS (ALL BRAILLE DISPLAYS WITH BRAILLE DOT KEYS)**

### **Activate VoiceOver Help & Screen Curtain**

1. Enter “VoiceOver Help”; press (Dots 1-3-space) [K-space].
2. Exit “VoiceOver Help”; press (Dots 1-2-space) [B-space].

### **Misc Commands**

1. Activates “Home” button and goes to the “Home” screen; press (Dots 1-2-5-space) [H-space].
2. Activate an item; press (Dots 3-6-space) or (Cursor Routing Button).
3. “Tab” function; press (Dots 2-3-4-5-space) [T-space].
4. Contracted braille ON/OFF; press (Dots 1-2-4-5-space) [G-space] toggle.
5. Screen Curtain ON/OFF; press (Dots 1-2-3-4-5-6-space) toggle.
6. Announce location: page number, column/row and focus; press (Dots 3-4-space) [ST-space].

### **Speech Commands**

1. Speech ON/OFF:
  - a. Press (Dots 1-3-4-space) [M-space] toggle.
2. Speech Volume:
  - a. Increase Volume; press (Dots 3-4-5-space) [AR-space].
  - b. Decrease Volume; press (Dots 1-2-6-space) [GH-space].
3. Adjust Speech Rate:
  - a. Access “Rotor”; press (Dots 5-6-space) to select “Speech Rate”.
  - b. Increase Speech Rate; press (Dot 3-space).
  - c. Decrease Speech Rate; press (Dot 6-space).

### **Navigation Commands**

1. Top of page/first element: press (Dots 1-2-3-space) [L-space].
2. Bottom of page/last element: press (Dots 4-5-6-space).
3. Move to next item; press (Dot 4-space).
4. Move to previous item; press (Dot 1-space).
5. Scroll Right 1 Page; press (Dots 1-3-5-space) [O-space].
6. Scroll Left 1 Page; press (Dots 2-4-6-space) [OW-space].
7. Scroll Down 1 Page; press (Dots 1-4-5-6-space) [TH-space].
8. Scroll Up 1 Page; press (Dots 3-4-5-6-space).
9. Move to Status Bar; press (Dots 2-3-4-space) [S-space].
10. Rotor Settings: next item; press (Dots 5-6-space).
11. Rotor Settings: previous item; press (Dots 2-3-space).
12. Rotor: next item; press (Dot 6-space).
13. Rotor: previous item; press (Dot 3-space).
14. Open/Close Task/App Switcher; press (Dots 1-2-5-space) [H-space] twice quickly; toggle.
15. Enter; press (Dots 1-5-space) [E-space].



## Reading Commands

1. Read from Current Position; press (Dots 1-2-3-5-space) [R-space].
2. Read from the Top of Screen; press (Dots 2-4-5-6-space) [W-space].
3. Pause & Resume Speaking; press (Dots 1-2-3-4-space) [P-space] toggle.
4. Pan Braille Right; press (Dot 5-space).
5. Pan Braille Left; press (Dot 2-space).

## Editing Commands

1. Contracted braille ON/OFF; press (Dots 1-2-4-5-space) [G-space] toggle.
2. Route braille cursor to desired braille cell; press (Cursor Routing Button) under/above cell.
3. "Tab" function; press (Dots 2-3-4-5-space) [T-space].
4. Delete; press (Dots 1-4-5-space) [D-space] or press (Dot 7-space).
5. Enter; press (Dots 1-5-space) [E-space].
6. Select text (Dots 2-5-6-space).
  - a. Note: To select by words or lines, first change "Rotor" to words or lines.
7. Select all (Dots 2-3-5-6-space).
8. Unselect text (Dots 2-3-5-space).
9. Cut (Dots 1-3-4-6-space) [X-space].
10. Copy (Dots 1-4-space) [C-space].
11. Paste (Dots 1-2-3-6-space).
12. Undo typing (Dots 1-3-5-6-space) [Z-space].
13. Redo typing (Dots 2-3-4-6-space).

## REFRESHABRAILLE 18 UNIQUE COMMANDS

**Note:** The controls, functions and commands listed below are unique to the Refreshabaille 18 braille display. You can also use with this braille display, all the common commands listed in the "Common Braille Display Commands" section listed on pages 80-81.

1. Move to previous item; press (Joystick Left).
2. Move to next item; press (Joystick Right).
3. Move to previous "Rotor" item; rock up (Joystick).
4. Move to next "Rotor" item; rock down (Joystick Down).
5. Select item; press as a button (Joystick Press).
6. Pan Braille to the left; press (Left Panning Button).
7. Pan Braille to the right; press (Right Panning Button).
8. "Back" button if present; press (Power Button).

## **FOCUS 40 BLUE UNIQUE COMMANDS**

**Note:** The controls, functions and commands listed below are unique to the Focus 40 Blue braille display. You can also use with this braille display, all the common commands listed in the “Common Braille Display Commands” section on pages 80-81.

1. Activates the selected item; press down as a button on (Left or Right WhizWheel).
2. Activates the selected item: press one of the (Cursor Routing or Navrow Buttons).
3. Move to the previous item using the “Rotor” setting; rotate up (Left WhizWheel).
4. Move to the next item using the “Rotor” setting; rotate down (Left WhizWheel).
5. Pan braille to the right; press (Right Panning Button).
6. Pan braille to the left; press (Left Panning Button).
7. Scroll up one page; press (Left Rocker Up).
8. Scroll down one page; press (Left Rocker Down).
9. Scroll left one page; rock/press up (Right Rocker).
10. Scroll right one page; rock/press down (Right Rocker).
11. Activates the “Back” button and Stops VoiceOver Help; press (Left Selector Button).
12. Start & Stops the current action, such as, playback of music and video (Right Selector Button).

## **APEX AS A BRAILLE DISPLAY COMMANDS**

**Note:** The controls, functions and commands listed below are unique to the Apex setup as a braille display. You can also use with this braille display, all the common commands listed in the “Common Braille Display Commands” section listed on pages 80-81.

1. Bypass Function; press (Dots 4-5-6-8-space) prior to using the following commands:
  - a. Activate Home button; press the by-pass command (Dots 4-5-6-8-space), then (Dots 1-2-5-space) [H-space]
  - b. Scroll Right to Next page; press the by-pass command (Dots 4-5-6-8-space), then (Dots 1-3-5-space) [O-space].
  - c. Enter function; press the by-pass command (Dots 4-5-6-8-space), then (Dots 1-5-space) [E-space].
  - d. Screen Curtain ON/OFF; press the by-pass command (Dots 4-5-6-8-space), then press (Dots 1-2-3-4-5-6-space).
2. Activates the “Home” button (Thumb keys 2-3).
3. Pan Braille to the left; press (Thumb key 2).
4. Pan Braille to the right; press (Thumb key 3).
5. Move to the previous item; press (Thumb key 1).
6. Move to next item; press (Thumb key 4).
7. Activates the “Delete” function; press (Thumb keys 1-2).
8. Activates the “Return” function; press (Thumb keys 3-4).
9. Activates the “Eject” function; press (Thumb keys 1-3).

## Appendix B: Quick Reference Table (iPad – VoiceOver – Braille Displays)

### SPEECH – Gestures & Commands

	VoiceOver (VO)	Refresh Braille 18	Focus 40 Blue	Apex as a Display
<b>VoiceOver ON/OFF</b>	Press “Home” button 3 times, quickly	N/A	N/A	N/A
<b>VoiceOver HELP</b>	Go to Settings, VoiceOver & select “VoiceOver Practice”	On: (Dots 1-3-space) [K-space] Off: (Dots 1-2-space)	On: (Dots 1-3-space) [K-space] Off: (Dots 1-2-space)	On: (Dots 1-3-space) [K-space] Off: (Dots 1-2-space)
<b>Speech on/off Zoom OFF</b>	3-finger_ Double Tap	(Dots 1-3-4-space) [M-space]	(Dots 1-3-4-space) [M-space]	(Dots 1-3-4-space) [M-space]
<b>Speech on/off Zoom ON</b>	3-finger_ Triple Tap	(Dots 1-3-4-space) [M-space]	(Dots 1-3-4-space) [M-space]	(Dots 1-3-4-space) [M-space]
<b>Pause Speech</b>	2-finger_ One Tap	(Dots 1-2-3-4-space) [P-space]	(Dots 1-2-3-4-space) [P-space]	(Dots 1-2-3-4-space) [P-space]
<b>Resume Paused Speech</b>	2-finger_ One Tap again	Again press: (Dots 1-2-3-4-space) [P-space]	Again press: (Dots 1-2-3-4-space) [P-space]	Again press: (Dots 1-2-3-4-space) [P-space]
<b>Start Reading from Focus Area</b>	2-finger_ Swipe Down	(Dots 1-2-3-5-space) [R-space]	(Dots 1-2-3-5-space) [R-space]	(Dots 1-2-3-5-space) [R-space]
<b>Start Reading from Top of Page</b>	2-finger_ Swipe Up	(Dots 2-4-5-6-space) [W-space]	(Dots 2-4-5-6-space) [W-space]	(Dots 2-4-5-6-space) [W-space]
<b>Volume UP (Method 1: Rotor)</b>	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; 2-finger_ Rotate Step 2. 1-finger_ Flick Up	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 3-space)	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 3-space)	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 3-space)
<b>Volume UP (Method 2)</b>	iPad Volume button	(Dots 3-4-5-space) [AR-space]	(Dots 3-4-5-space) [AR-space]	(Dots 3-4-5-space) [AR-space]
<b>Volume DOWN (Method 1: Rotor)</b>	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; 2-finger_ Rotate Step 2. 1-finger_ Flick Down	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space)	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space)	Step 1. Set <b>Rotor</b> to <b>Volume</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space)
<b>Volume DOWN (Method 2)</b>	iPad Volume button	(Dots 1-2-6-space) [GH-space]	(Dots 1-2-6-space) [GH-space]	(Dots 1-2-6-space) [GH-space]
<b>Speech Rate FASTER</b>	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; 2-finger_ Rotate Step 2. 1-finger_ Flick Up	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 3-space)	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 3-space)	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 3-space)
<b>Speech Rate SLOWER</b>	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; 2-finger_ Rotate Step 2. 1-finger_ Flick Down	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space)	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space)	Step 1. Set <b>Rotor</b> to <b>Speech Rate</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space)

## Appendix B: Quick Reference Table (iPad – VoiceOver – Braille Displays)

### NAVIGATION – Gestures & Commands

	VoiceOver	Refreshbraille 18	Focus 40 Blue	Apex as a Display
<b>Jump to Top of Page/First Element</b>	2-finger_Swipe Up (and starts reading)	(Dots 1-2-3-space) [L-space]	(Dots 1-2-3-space) [L-space]	(Dots 1-2-3-space) [L-space]
<b>Jump to Bottom of Page/last Element</b>		(Dots 4-5-6-space)	(Dots 4-5-6-space)	(Dots 4-5-6-space)
<b>Move to Next Item</b>	1-finger_Flick Right	- (Dot 4-space) - (Joystick, Rock Right)	- (Dot 4-space) - (Rocker Bar, Down). - (Whiz Wheel, Rotate Down)	- (Dot 4-space) - (Thumb Key 4)
<b>Move to Previous Item</b>	1-finger_Flick Left	- (Dot 1-space) - (Joystick, Rock Left)	- (Dot 1-space) - (Rocker Bar, Up). - (Whiz Wheel, Rotate Up)	- (Dot 1-space) - (Thumb Key 1)
<b>Pan Braille Right</b>	N/A	- (Dot 5-space) - (Right Pan Button)	- (Dot 5-space) - (Right Pan Button)	- (Dot 5-space) - (Thumb Key 3)
<b>Pan Braille Left</b>	N/A	- (Dot 2-space) - (Left Pan Button)	- (Dot 2-space) - (Left Pan Button)	- (Dot 2-space) - (Thumb Key 2)
<b>Scroll Right One Page</b>	3-finger_Swipe Left	(Dots 1-3-5-space) [O-space]	(Dots 1-3-5-space) [O-space]	Step 1: By Pass (Dots 4-5-6-8-space) Step 2: (Dots 1-3-5-space)
<b>Scroll Left One Page</b>	3-finger_Swipe Right	(Dots 2-4-6-space) [OW-space]	(Dots 2-4-6-space) [OW-space]	(Dots 2-4-6-space) [OW-space]
<b>Scroll Down One Page</b>	3-finger_Swipe Up	(Dots 1-4-5-6-space) [TH-space]	(Dots 1-4-5-6-space) [TH-space]	(Dots 1-4-5-6-space) [TH-space]
<b>Scroll Up One Page</b>	3-finger_Swipe Down	(Dots 3-4-5-6-space)	(Dots 3-4-5-6-space)	(Dots 3-4-5-6-space)
<b>Vertical Navigation</b>	Step 1. Set <b>Rotor</b> to “ <b>Vertical Nav.</b> ”; 2-finger_Rotate Step 2. 1-finger_Flick Up	Step 1. Set <b>Rotor</b> to <b>Vertical Nav.</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space) or (Dot 3-space)	Step 1. Set <b>Rotor</b> to <b>Vertical Nav.</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space) or (Dot 3-space)	Step 1. Set <b>Rotor</b> to <b>Vertical Nav.</b> ; (Dots 2-3 or 5-6-space) Step 2. (Dot 6-space) or (Dot 3-space)
<b>Screen Curtain On/Off (Zoom OFF)</b>	3-finger_Triple Tap, toggle	(Dots 1-2-3-4-5-6-space), toggle	(Dots 1-2-3-4-5-6-space), toggle	(Dots 1-2-3-4-5-6-space), toggle
<b>Screen Curtain On/Off (Zoom ON)</b>	3-finger_4 Taps, toggle	(Dots 1-2-3-4-5-6-space), toggle	(Dots 1-2-3-4-5-6-space), toggle	(Dots 1-2-3-4-5-6-space), toggle