

Apple iPhone with VoiceOver

Lesson 2 - Working with Apps



This lesson has been designed for users of iPhone models which don't have a Home Button, in conjunction with the VoiceOver screen reader and iOS 14.4. For reference, models of iPhone without a Home Button are the iPhone X, XR, XS, XS Max, 11, 11 Pro, 11 Pro Max, 12, 12 mini, 12 Pro and 12 Pro Max. If you require further information regarding your iPhone and VoiceOver, please contact the author, Gary Eady, using the following email address: geady@sightforsurrey.org.uk.

1. Introduction

This lesson expands on the VoiceOver navigational gestures covered in Lesson 1 - Orientation and Basics, and introduces new gestures to launch applications. You will also learn about basic text entry. By the end of this lesson, you should know:

- What an App is.
- How to activate icons, buttons and text fields.
- How to switch between active apps, and how to close apps you are not using.
- What 'Airplane' Mode is.
- Why it is important to close applications.
- How to scroll vertically between screens.
- How to sort long lists into alphabetical order.
- How to create a note using the Notes Application.
- How to enter text into Text Fields.

2. Terms You Should Know

2.1 Apps

Apps, short for applications, are computer programs which run on your iPhone. Apps do everything from helping you make or receive a phone call, to checking on the weather, writing notes and documents, playing and organizing music and movies, managing your contacts and calendars, providing GPS instructions, playing games, tuning your guitar, reading books and about a million other things! You download and purchase Apps from the Apps Store or iTunes Store. When you download and install an App, an icon for that app is placed at the end of the last page of your Home Screen.

Apps are really computer programs that your iPhone can run. Running a program, launching an app and starting an app are all different ways of saying the same thing. You launch an app by "activating" its icon. Once an app has been launched, it remains active until you close it. More about this later!

3. Activating an Item

There are two item types in the Home Screen grid and the Dock that you can activate. They are icons, which launch applications, and folders, which can contain application icons and other folders. Activating a folder item doesn't actually launch an application. Instead it "Opens" the folder and displays its contents. The icons in the Status Bar simply report on the conditions of your device. They can be Explored, but not activated.

3.1 More About the One Finger Double Tap

This is the most common way to activate an item. Tapping twice quickly with One Finger anywhere on the screen will activate the Current Item. Remember, the Current Item is the last item spoken by VoiceOver. You can't pause too long between the taps, or VoiceOver will interpret them as two separate Explore or Touch gestures.

NOTE 1: To find out how quickly you need to double tap, use the VoiceOver Help gesture, a Four Finger Double Tap, that you learned at the end of Lesson 1 - Orientation and Basics. When help begins, start tapping the screen twice slowly with One Finger. Wait for VoiceOver to announce the gesture you made. Gradually make each pair of taps faster until VoiceOver announces, "One Finger Double Tap". Then, perform a Four Finger Double Tap again to exit VoiceOver help and return to the Home Screen grid.

3.2 The Split Tap Gesture

This gesture has the same function as the One Finger Double Tap. It is a much less common way to activate an item, but you should be aware of it. This is because people who are unaware of this gesture often make it by mistake and wonder what happened when their device unexpectedly launches an application or opens a folder. There are two steps to perform the Split Tap gesture:

1. Use the Explore gesture to find the icon or folder you wish to activate. This will make it the current item.
2. Whilst holding your finger down on the item, tap anywhere on the screen with a second finger.

Sometimes when users are exploring the screen with one finger, they inadvertently touch it with their wrist or a second finger, and execute the Split Tap gesture. So be careful of this!

3.3 The Activate Gesture

From now on the term "Activate Gesture" will be used to tell you to either execute the One Finger Double Tap gesture, or the Split Tap gesture. You can use whichever one you prefer, but mix them up a little to get experience with both.

Let's give it a try. Use the Explore gesture, or a combination of the Next and Previous item gestures, until you find the Reminders icon. Then use one of the Activate gestures to launch the Reminders application. When you do, your iPhone will chirp to indicate the app has been launched. Take a minute to Explore the Reminders screen.

3.4 Returning to the Home Screen

As you explore the Reminders screen, you may notice that there is no button for closing the application. So how do you get back to the Home Screen? You do this by sliding up from the bottom of the screen with one finger until you hear the second pop noise. VoiceOver will then say "lift to go home". Release your finger! Upon doing this, your device will make a chirp sound, VoiceOver will say "Home", and you will be returned to page 1 of your Home Screen.

Now that you are back on the home screen, let's find the Notes app and launch it with the Activate Gesture. After exploring the screen, slide up from the bottom of the screen with one finger until you feel the second vibration and hear the second pop noise, then release your finger. Again, you will be back on page 1 of your Home Screen.

Try this with the Music app, and the app for messages.

4. Switching Between Open apps

If you followed the steps in the previous section correctly, you now have four apps open; Reminders, Notes, Music and Messages. Each time you returned to the Home Screen, you left the app active, but running in the background. The big advantage to this is that each app remembers where you were when you switched it to the background, and it will go back to that point when you bring it to the foreground again. You do this with the App Switcher. The app switcher allows you to switch between all running applications, and to close them when you are done.

4.1 Launching the App Switcher

You can launch the App Switcher at any time by sliding up from the bottom edge of the screen with one finger until you feel the third vibration and the third pop sound. When you do this, VoiceOver will say "lift for App Switcher". Release your finger at this point! Upon doing this, your iPhone will make a chirp sound, and VoiceOver will say "App Switcher", followed by the name of the app which has focus. For reference, you will need to slide your finger approximately half-way up the screen in order to hear the third pop sound and the announcement by VoiceOver!

The App switcher displays all running apps. You can use the Next Item gesture or the Previous Item gesture to switch focus from one app to another. Once you find the app you want, you can do one of two things: You can switch the app to the foreground again with the Activate gesture, or you can close the app.

From now on, sliding up from the bottom edge of the screen with one finger until you feel the third vibration and hear the third pop sound, will be referred to as the "App Switcher" gesture.

4.2 Why Close Apps?

Your iPhone has a limited amount of memory for running applications. As an analogy, try imagining that inside your iPhone is a workshop with an empty work bench and shelves along the back wall. The shelves have objects representing your applications. There might be an address book on the shelf for the Contacts app, a weather station for the weather app, a bunch of post-it pads for Reminders and calendars, alarm clocks and radios for their respective apps as well. A worker stands between the empty work bench and the shelves waiting for you to tell him what you want him to do. You activate the Weather app, so he runs to the shelf and gets the weather station. He brings it to the bench, and reads you what it says. Then you want to check your calendar for today's appointments. He runs back and lays the calendar on the workbench as well. Now you start listening to music. He runs back and puts a stereo on the workbench. You check your mail. He brings a pile of messages and puts them on the bench. Finally, you check your stocks. So he brings out the stock ticker. By now the workbench is looking pretty cluttered. If you decide to record a voice memo, the worker will go get the digital recorder, but will have to shuffle some things around on the work bench to make room for it. Shuffling apps around like this is inefficient and can slow down your iPhone.

When you close an app, you remove it from the work bench and put it back on the shelf. This frees up space for new applications. You can always put the app back in working memory by activating its icon from the home screen when you need it.

How many apps can working memory hold? This is a tough question to answer. There are many factors which affect this answer. How often should you close apps you are not using? Again there is no correct answer. Check the app switcher at least twice a week or when you feel your device is slowing down.

4.3 Returning to an app where you left it

If you wish to return to working in an app, then make the icon for that app the Current item in the app switcher. Next, perform a One Finger Swipe Up until Voiceover announces "activate" and then perform the Activate gesture, a One Finger Double Tap, to bring that app to the foreground again. The Split Tap gesture doesn't work inside the app switcher!

4.4 Closing an App

If you are done working with an app and you want to close it, make it the current item and then perform a Three Finger Swipe Up. This will close the app and remove it from the app switcher. Alternatively, you can close an app in the App Switcher by performing a One Finger Swipe Up until VoiceOver announces "Close" and then performing a One Finger Double Tap.

4.5 Exiting the App Switcher

You have already learnt one way to exit the App Switcher. Simply use the Activate gesture, a One Finger Double Tap, on the icon for the app you wish to go to.

You can also exit the App Switcher by performing the Go to Home gesture, or by using the Two Finger Scrub gesture. If you didn't close the app you were in when you entered the App Switcher, then you will be returned to that application. If the application is no longer open, then you will be returned to the Home Screen.

4.6 Quick App Switcher Review

1. You can launch the App Switcher at any time by performing the App Switcher gesture.
2. The App Switcher shows all apps that are loaded into working memory.
3. You can use the Next Item and Previous Item gestures to determine what items are in the App Switcher and to make an app the Current Item.
4. You can return to the app represented by the Current Item, at the point you left it, by activating it with the One Finger Double Tap gesture.
5. You can close the app for the Current Item by swiping up with three fingers. The Three Finger Swipe Up only closes apps from the App Switcher screen. It has a different meaning in other screens. Alternatively, you can close an app in the App Switcher by performing a One Finger Swipe Up until VoiceOver announces "Close" and then performing a One Finger Double Tap.
6. The App Switcher screen is the only place where you can close applications.
7. The advantage to closing an application using the app switcher is that it frees up memory for your device to do other things. The drawback is that you have to start from the apps opening screen the next time you use it.
8. The advantage to keeping an application open is that when you return to it, you will go right back to the place you were when you left it. If the app has a lot of screens, or if you were interrupted and didn't finish your work, this is helpful. The drawback is that if you do this with a lot of apps, your device's performance could degrade.
9. You can return to the Home Screen grid from the App Switcher by performing the Go to Home gesture.
10. If the app you were in is still open, performing the Go to Home gesture or the Two Finger Scrub gesture will return you to that application. Otherwise, you will be taken to the last used Home Screen page.

4.7 The Next App and Previous App Gestures

There are two gestures available to all VoiceOver users. They are the Four Finger Swipe Left, Switch to Previous App, and Four Finger Swipe Right, Switch to Next App gestures. They will cycle through the apps that you have open. If you make the gesture correctly, your iPhone will make a chirp sound and VoiceOver will announce the name of the app being switched to. If you hear the Thunk sound, or seem to be remaining on the same app, try swiping in the opposite direction. These gestures are difficult to make on devices with small screens, so you may find it easier to just use the App Switcher instead. The Next App and Previous App gestures are not available when focus is on the Home Screen!

If you have closed the Apps which were open at the end of Section 3; Reminders, Notes, Music and Messages, open them again. Once they are open, try switching between them using the Next App and Previous App gestures. When you have finished, activate the App Switcher and close all of the open apps.

4.8 Putting It All Together

1. Launch the App Switcher.
2. If there are any apps open, make each one the Current Item and use the Three Finger Swipe Up gesture to close it. Do this for all open applications.
3. Return to the Home Screen and activate the Settings App. The App opens to the Settings main menu. At the top of the menu is a Heading which reads, "Settings".
4. Use the Explore gesture to find the "Accessibility" button and then activate it. Take a minute to explore the screen. You will find that it is different from the screen when you first launched the app.
5. Now use the Explore gesture to find the "VoiceOver" button and then activate it. The heading at the top of the screen will now say, "VoiceOver".
6. Perform the Go to Home gesture to return to the Home Screen.
7. Activate the Safari app.
8. Return to the Home Screen again and activate the Reminders app.
9. Launch the App Switcher and close all of the apps except the Settings app.
10. Activate the Settings app from the App Switcher. Explore the screen. Notice that you are back to the VoiceOver screen, exactly where you were when you left the app. There was no need to activate the Accessibility button and then the VoiceOver button again to get there!
11. Go to the Home Screen and activate the settings icon again. Notice you still go back to the same screen within the Settings app.

12. Launch the App Switcher and close the Settings app.
13. Go to the Home Screen again and activate the settings app once more. This time You will start at the main screen.

In this exercise you demonstrated how to use the App Switcher to close apps. You also demonstrated the difference between leaving the App open and coming back to it as opposed to closing it. Leaving the App open can save you time when you return to it. Closing the App frees up memory. Which technique is best depends on whether saving memory or work is more important at that particular moment.

5. Navigating Lists

Sometimes when you launch an app, the app displays a list of items that scrolls off the bottom of the screen. You might notice this if you have a lot of contacts, or if you have a lot of email messages in your inbox. When this happens, you need a way to scroll up and down through these lists.

Let's take a look at the Settings application. Use one of the two Activate gestures discussed earlier to launch it from the Home Screen.

1. Use the Explore gesture at the top of the Settings Main Menu just below the status bar. Slowly move down. VoiceOver announces "Settings, heading". This means that your finger is passing over a group heading called Settings. Headings are text labels that appear on the screen. You can't activate labels or do anything else, you can only read them.
 2. Now explore down a little further. VoiceOver now announces "Search field, double tap to edit". A search field allows you to enter key words or phrases and then view a list of only those items which match the full or partial keywords you typed. Text Fields and entering text will be covered later in this lesson.
3. Explore down again. VoiceOver should say your name, followed by "Apple ID, iCloud, iTunes and App Store". VoiceOver then announces the word "button". Activating this button results in a screen being displayed where you can view and manage various settings to do with your accounts for Apple ID, iCloud, iTunes and the App Store.
4. Explore down a little further. VoiceOver now announces, "Airplane Mode," followed by the word On or Off. It most likely says Off. Airplane mode isolates your iPhone by preventing it from sending or receiving any electronic signals. This prevents expending the battery looking for cellular or wireless signals in an area where there are none. Normally Airplane Mode should be Off, to allow your device to send and receive signals. VoiceOver then ends with the word "Button".
5. Explore down again. VoiceOver begins by saying "Wi Fi". If you are connected to a network, then you will hear its name. VoiceOver then ends with the word "Button".

5.1 Icons verses Buttons

Icons and buttons are similar in that you press a button, or activate an icon, by using one of the two Activate gestures discussed earlier in this lesson. There are some differences in the way they look, but the main difference is that Icons launch apps, whilst buttons take you to other screens within the app you found them in, or they perform an action such as turning something on or off.

You can only get down to the first 10 or so items in the Settings screen with the Explore gesture. So how do you get to the rest of the items in the list? You could use the Next Item gesture, a One Finger Swipe Right, to move through the list one at a time, but there is a faster way.

5.2 Three Finger Swipe Up and Three Finger Swipe Down

When an app contains a lot of information, you can use these gestures to move the screen contents up or down. Try the Three Finger Swipe up gesture. Upon doing this, VoiceOver will announce something like "Rows 7 to 14 of x", where X is the total number of items in the Setting screen.

You can now quickly scan the new buttons with the Explore gesture to see if the one you are looking for is there. If it isn't, perform the Three Finger Swipe Up gesture again. Upon doing this, VoiceOver will announce the next set of rows on the screen. If you want to scroll the screen contents in the opposite direction, perform the Three Finger Swipe Down gesture.

From now on, the Three Finger Swipe up will be referred to as the Scroll Down gesture and the Three Finger Swipe Down will be referred to as the Scroll Up gesture.

It may seem a little confusing that the Three Finger Swipe Up gesture scrolls the screen down and the Three Finger Swipe Down gesture scrolls the screen up. However, imagine a wall calendar, with the currently displayed month being March. You want to display the next month, so you flip the page up and over away from you. Upon doing this, the month of April is displayed. You have effectively scrolled down to display the next page. Now, you want to display the month of February. You flip the page up and over towards you twice until the month of February is displayed. You have effectively scrolled up!

Experiment with the different ways of navigating the Settings screen until you find the combination of gestures that work best for you. For reference, they are:

1. Read from Top gesture, followed by the Pause/Resume gesture when VoiceOver announces the item you want.
2. A combination of the Next Item and Previous Item gestures.
3. The Scroll Up and Scroll Down gestures in combination with the Explore gesture.

See if you can locate the "Stocks" button using these methods. You are not going to activate it now. Just see if you can make it the Current Item.

You have probably noticed by now that the items in the list are not in an easily identifiable order. So you have to scan every item to find the one you want. Don't lose heart. There are a couple of ways to help solve this problem!

5.3 The Vertical Scroll Bar

In apps that contain multiple screens, you will find an item called the Vertical Scroll Bar. This allows you to move through the items in the screen very quickly. The Vertical Scroll Bar runs all the way down the right edge of the screen. When you touch it, Voiceover announces, "vertical scroll bar", followed by the number of pages in the apps screen. VoiceOver then says how far through the pages you are, as a percentage. Finally, VoiceOver announces "Swipe up or down with one finger to adjust the value".

For example, if an app had 10 pages, with 10 items in each page, and the first page was in view, touching the Vertical Scroll Bar would result in VoiceOver saying "Vertical Scroll Bar, 10 pages, 0%". Swiping Down with One Finger would result in the screen being scrolled by 10%, in this case, 10 items at a time. VoiceOver would say "10%". Swiping Down with One Finger again would result in the next 10 items being displayed and VoiceOver saying "20%", and so on. Swiping Up with One Finger would result in the previous 10 items being displayed and VoiceOver saying the percentage.

To explore the items currently in view, you will first have to perform the Explore gesture. Then you could use a combination of the Next Item and Previous Item gestures, to move through the items one at a time.

Try using the Vertical Scroll Bar in the Settings app. Swipe Down with One Finger until VoiceOver announces "100%". This will move you to the bottom of the Settings screen. Then, explore the screen to see which buttons are in view. Now Swipe Up with One Finger on the Vertical Scroll Bar until VoiceOver announces "50%". This will move you to half way down the Settings screen. Explore the screen again to see which items are in view now.

Using the Vertical Scroll Bar is a little hit and miss, however, it does allow you to scroll and then explore long screens relatively quickly. It can also prove easier to use than the Scroll Up and Scroll Down gestures.

5.4 Two Finger Triple Tap

When you are confronted by a long list of items seemingly in a random order, you can use this gesture to activate the Item Chooser. The Item Chooser will sort the list alphabetically. This makes finding things a lot easier. There is even a search option at the top of the Item Chooser, but you can ignore this for now. If you activate the Item Chooser, and decide you want to cancel it without selecting anything, you can cancel it by simply performing the Go to Home gesture.

One major drawback of the Item Chooser, is that it only puts into alphabetical order the items which are currently in view on the screen. This can make the job of finding an item a little frustrating! Nevertheless, it does serve a purpose sometimes, so we will take a look at it.

In the Settings screen, use the Vertical Scroll Bar, or the Scroll Down gesture, until the first page is displayed. Then, perform a Two Finger Triple Tap to display the Item Chooser. Once the list is displayed, you can use the Explore gesture or a combination of the Next Item and Previous Item gestures to move through the list. Try to find the "Mobile Data" item. It is much easier when the list is displayed in alphabetical order!

When you have found the Mobile Data item, use an Activate gesture. Upon doing this, the Item Chooser will return you to the Settings screen. The Mobile Data button will now be the Current Item.

The Item Chooser will also work on the Home Screen. If the Current Item is in the Status Bar, the Item Chooser will sort the Status Bar items alphabetically. If the Current Item is in the Home Screen grid or Dock, then the Item Chooser will combine all the items on the current page of the Home Screen and those in the Dock area into a single alphabetically sorted list. From now on, the Two Finger Triple Tap will be referred to as the "Item Chooser" gesture.

5.5 The "Jump to Top" Gesture

Suppose you are down near the bottom of a very long list of items and you need to get back to the top. You could repeatedly use the Scroll Down gesture, or you could use the Vertical Scroll Bar. However, using either of these methods may take you a while, depending on how many screens long the list of items is. There is a faster way! It is a combination of two gestures, an Explore gesture followed by an Activate gesture.

1. Use the Explore gesture near the top of the screen until VoiceOver reads one of the Status Bar items. Any one will do.
2. Then perform an Activate gesture. Upon doing this, your iPhone will display the first screen of the list again. Focus will still be in the Status Bar, so explore down from here until you come to the first button. You will find that the first button is the one labelled with your name, followed by Apple ID, iCloud, iTunes and App Store. This is the first button in the Settings screen!

Let's give it a try.

1. If it is not already open, please launch the Settings app.
2. Make the Airplane Mode button the Current Item.
3. Keep using the Scroll Up gesture until you hear the Thunk Sound. This means you are now at the end of the list of buttons in the Settings app.

4. Explore the screen until one of the Status Bar items becomes the current item, and then perform the Activate gesture, a One Finger Double Tap.
5. Explore the screen again, starting just beneath the Status Bar. You should find that you are back at the top of the list of buttons!

6. Typing with VoiceOver

let's launch an app from the Home Screen that allows you to enter text. The easiest one to use for this purpose, is the Notes app.

1. If you are not already there, go to the Home Screen by performing the Go to Home gesture.
2. Locate the Notes icon.
3. Use an Activate gesture to launch the Notes app.

NOTE 2: If this is the first time you have used the Notes app, a "Welcome to Notes" series of screens will appear. The screens briefly tell you about all the new features in Notes. At the bottom of each screen is a "Continue" button. Please activate this button repeatedly to bypass these screens. If you are prompted to upgrade notes, choose the "Not Now" option.

6.1 The Notes App

The Notes App consists of three screens. They are the "Notes Content" screen, which shows the contents of an individual note, the "Notes List" Screen, which lists all the notes you have created in a particular folder and the "Folders" screen, which displays a list of all Accounts and folders which contain notes.

If you have never used the Notes app before, Your iPhone will open the Notes app to the Notes List Screen. Use the Read from Top gesture to hear all the items on the screen. When VoiceOver has finished speaking, Explore until you Find the "New Note" button. For reference, this is situated at the bottom right corner of the screen. Make it the Current Item and then activate it. Upon doing this, you will be taken to the Notes Content Screen with a blank note displayed.

If you have used the Notes App previously, then the app opens to the screen it was on when you last used it. At the bottom right corner of the screen, you will find a "New Note" button. Activate this button to go to the Notes Content Screen and display a blank note. Upon doing this, VoiceOver will say "Note, text field, is editing". This means you are in a text field where the text of your note can be entered.

The Notes Content Screen

At the top of the Notes Content Screen, your iPhone displays a row of three buttons, which will be referred to as the Action Row. At the top left, just below the Status Bar, is the "Notes, Back" button. This button can be activated using an Activate gesture.

If you activate the "Notes, Back" button, you will be returned to the Notes List screen and the changes you made to your note will be saved. Most apps have a "back" button in this location!

Explore to the right of the "Notes, Back" button. VoiceOver will say "Actions button". When this button is activated, a popup window is displayed, consisting of two buttons - Lines and Grids and Close. The Actions button will not be discussed in this lesson.

Explore to the right once more. VoiceOver will say "Done, button". This is the last button on the Action Row. You activate this button when you have finished typing. Upon doing this, the virtual keyboard (explained later) will be hidden!

Below the Action Row, is a label which contains the current date. If you were editing a previously saved note, it would contain the date the note was last updated. Explore down from the Date label and you will find the "Note" Text Field. This is where you will type the text of the note you are about to create.

Since you are creating a new note, your iPhone automatically goes into edit mode so you can enter text. As a result, the bottom portion of the screen is taken up with a virtual keyboard.

Now that you have explored the Notes Content screen, Use the Next Item gesture, or Previous item gesture, until you have located the Notes Text Field. When you do, listen to what VoiceOver has to say. It will announce, "Notes, Text Field, Is editing, insertion point at start". Then it will say "Use the Rotor to access misspelled words". The Rotor will be discussed in the next lesson - Editing Text.

Let's examine the first statement and figure out what VoiceOver is trying to tell us.

- Note: This is the name of the Current Item.
- Text Field: This is the type of item that it is. Text Fields are items where you can enter text, such as typing in the blank spaces on a form. We have discussed several different item types now. They are Icons, Folders, Buttons, Labels, Headings and Text Fields. Formatted Text Fields can support special text, such as bold, italic and underline. Some can even hold pictures or videos, such as a web page or Email message. Unformatted fields support only plain upper and lower case letters as well as numbers, symbols and punctuation characters. The Notes app uses a formatted text field. You don't need to worry about changing formatting in this lesson.
- Is Editing: This tells you that when you start typing, what you type will be entered into this field. This is important to listen for on screens with multiple Text Field items. If you don't hear this on the field you want to type into, you need to use an Activate gesture to start editing mode in that field.
- Insertion Point at Start: An edit field has a start position and end position. In a blank edit field, the start point is the same as the end point. In Text Fields which contain text, the start point is directly before the first character. The end point is directly after the last character.

The Show Toolbar Icon

Immediately below the lower right corner of the Notes Text Field, you may find a small button which Voiceover reads as, "Show Toolbar", although Voiceover doesn't tell you it is a button. If you make this button the Current Item and then use an Activate gesture, it expands into a toolbar which allows you to add tables, sketches, photos, pre-designed text formats and checkboxes. If you don't find the toolbar, don't worry about it. You are going to ignore it for now anyway!

Auto-correct and the Typing Predictor

The Auto-correct feature suggests completions and corrections for the word you are typing. The Typing Predictor tries to anticipate the word you are about to type, or suggest completions for the word you are in the middle of typing. You can choose one of these suggestions with the Activate gesture and the entire word will be typed for you.

When the Notes Text Field is activated for editing, the Typing Predictor is Centred below it. On devices with smaller screens, the Typing Predictor stretches all the way across the screen. On devices with larger screens, there is some room to either side. If you are trying to locate the Typing Predictor, it's best to explore down from the horizontal centre of the Notes Text field.

Both the Auto-correct and Typing Predictor features can make typing difficult for Voiceover users. In addition, they can cause a lot of confusion. Therefore, it is recommended that these features are turned off, until you are more comfortable with typing. To turn them off you must go to the Keyboard Options Screen in the Settings app and follow these steps.

Locating the Keyboard Options Screen

1. Open the Settings App from the Home Screen.
2. Use the Explore gesture, or a combination of the Next Item and Previous Item gestures, until the "General" button is the Current Item. When you have located it, perform an Activate gesture. Upon doing this, the General screen will be displayed.
3. In the General screen, use the Explore gesture, or a combination of the Next and Previous Item gestures, until the "Keyboard" button is the Current Item. When you have located it, use an Activate gesture. Upon doing this, the Keyboard options screen will be displayed.

Auto-Correction

Auto-correct monitors what you are typing and tries to suggest a word as soon as you type a character that it thinks doesn't belong. For example, let's say you are typing the word, "Treasure" and you type T, r, e, a, z. You will hear a warning tone,

and Autocorrect suggests the word it thinks you meant. In this case it suggests, "Treat," which is not what you meant. It would be most unfortunate if you wrote your book report on "Treat Island", by Robert Louis Stevenson.

The Auto-correction button toggles this setting on and off. When this setting is on, and your iPhone doesn't recognize a word you are typing, it will suggest a replacement. You will hear two brief tones to let you know there is a problem, but accessing the rest of the functionality of Auto-Correct is difficult. It is recommended that you turn this function off. So, use the Explore gesture, or a combination of the Next Item and Previous Item gestures, until the "Auto-correct" button is the Current Item and then use an Activate gesture to toggle the setting to "Off".

The Typing Predictor

Activating the "Predictive" button toggles the setting between On and Off. This setting is On by default. When this setting is On, typing predictions appear just above the virtual keyboard. It is recommended that this feature is turned off until you are very comfortable with typing on the virtual keyboard. To do this, use the Explore gesture, or a combination of the Next Item and Previous Item gestures, until the "Predictive" button is the Current Item and then use an Activate gesture to toggle the setting to "Off".

Returning to the Notes App

Once you have the settings the way you want them, you can return to the Notes App by launching the App Switcher. Then, locate the Notes icon, and perform a One Finger Double Tap to activate it. You can also try a combination of the Next App (Four Finger Swipe Left) and Previous App (Four Finger Swipe Right) gestures, to switch back to the Notes App without invoking the App Switcher.

6.2 The Virtual Keyboard

If you continue to explore further down the screen, VoiceOver will begin to announce capital letters. This is because your iPhone is waiting for you to enter text into the Notes field. So it has provided you with a virtual keyboard at the bottom of the screen. Since you will be typing the first letter of a sentence, it will be automatically capitalized for you.

NOTE 3: This section describes the English style keyboard. Keyboards which support other languages may have slightly different configurations.

Whenever your iPhone requires you to type text, a virtual keyboard will appear across the bottom of the screen. The letters are arranged just like a computer keyboard with Q W E R T Y at the top left and Z X C V B N M across the bottom. There is a Shift keys to the left of the letter "Z". There is also a spacebar along the bottom. Beneath the letter "L" is the DELETE key, and beneath this, situated at the bottom right corner of the keyboard, is the ENTER key, which VoiceOver refers to as the "Return" key.

You may have noticed the number and punctuation characters are missing. You use the "Numbers" key, situated at the bottom left corner of the virtual keyboard, to access numbers and special characters. Upon doing this, a row of numbers appears at the top just like the number row on top of a computer keyboard, and the letters are replaced by several rows of punctuation characters and other special symbols, such as hyphens, slashes and parenthesis. The "Numbers" key will change to become the "Letters" key. Activate the "Letters" key to return to the Letters keyboard again. There is also a Dictate key to the left of the spacebar which allows you to dictate text, instead of typing. Dictation is not covered in this lesson.

Selecting alternative keyboards

There is a key to the left of the Dictate key which allows you to select alternative keyboards. This can be handy if you need to type in multiple languages. In the United Kingdom, there are two keyboards listed by default that can be alternated between using this key. The first is the standard UK English typing keyboard. The second is a keyboard of graphics called Emoji. The word Emoji means "picture letter" in Japanese. This is somewhat like the ancient hieroglyphics. Rather than using words, pictures are used to convey ideas, feelings, locations and so on. Apple have assigned descriptive text to each image in the Emoji keyboard, and the images are broken down into categories, which can be accessed by using buttons at the bottom of the keyboard.

6.3 Standard Typing Mode

By default, your device is set up to use Standard Typing Mode. If for some reason this has been changed, please change it back for this exercise. In Standard Typing Mode you use the Explore gesture to find the button for the letter or key you want, and then use the Activate gesture to press it.

Let's type the phrase "My first note" and see what happens. Don't worry about mistakes, you can clean them up in the next lesson.

1. Ensure you are in the Text Field for the new note.
2. Explore the virtual keyboard until VoiceOver announces "Capital M".
3. Now type the letter with a One Finger Double Tap.
4. Locate the letter "Y" by Exploring the virtual keyboard. Notice that VoiceOver has stopped announcing "Capital" before each letter. This means the next letter you type will be in lower case.
5. Perform a One Finger Double Tap to type the letter "Y".
6. Now do the same thing with the spacebar. Notice that when you complete a word, VoiceOver announces the word you just typed.

Some people find it hard to type using the One Finger Double Tap gesture, because their finger doesn't always come down on the same letter both times or they don't double tap fast enough. This is especially true if you are trying to type whilst travelling in a car or train. So let's type the word "first" using the Split Tap gesture.

7. Explore the virtual keyboard until you have located the letter "f", but DO NOT lift your finger.
8. Whilst keeping your first finger on the letter "F", tap anywhere on the screen with another finger. The letter "f" should now be typed.

TIP: You can do the Split Tap gesture with one finger from each hand. In this case you could use one finger from your dominant hand to find the letters on the virtual keyboard, and tap with a finger from the second hand, such as your thumb, to complete the gesture.

9. Try the same techniques with the letters l, r, s and t.
10. Now use the Split Tap gesture to type a space. VoiceOver should announce the word "first".
11. Now type the word "note" using either the One Finger Double Tap, or Split Tap method, but DO NOT type a blank space. After all, this is the end of a sentence, and it deserves a nice full stop.
12. Activate the "Numbers" key and explore the virtual keyboard again. You will find that the top row is now made up of numbers and the middle and bottom rows contain other symbols, including the full stop that you are looking for.
13. Explore the virtual keyboard until you find the full stop key and Activate it. For reference, it can be found towards the bottom left of the keyboard, just above and to the left of the Dictate key.
14. Now Activate the "Letters" key to switch back to the letters keyboard.
15. Activate the "Done" button. Upon doing this, the virtual keyboard will be hidden.
16. Finally, activate the "Notes, Back" button. Upon doing this, your note will be saved and you will be returned to the Notes List screen. You now have one note available in the list!

Congratulations, you are done!

FOOD FOR THOUGHT: The virtual keyboard is really nothing but an item grid just like the Home Screen. Its items are buttons that type letters instead of icons that launch applications. In Standard Typing mode, you activate the letter buttons the same way you activate icons. You can also use gestures such as Explore, Next Item, Previous Item and even activate the Item Chooser to help you find what you want.

7. Review

7.1 Different Types of Items

Let's review the different item types that are displayed on the screen.

Labels

Labels are blocks of descriptive text that appear on screen. You can read them, but they are inactive. In other words they don't do anything if you attempt to activate them.

Headings

These are labels that appear larger and bolder than other labels. They usually indicate a relationship between the items below them. You can read a heading, but you can't do anything else with them.

Icons

These items launch apps on your device.

Folders

These items can contain icons and other folders. VoiceOver announces "Folder" at the end of the item's name.

Buttons

These are items found inside an application that use the Activation gestures just like icons. They normally open a sub screen from within an application, or toggle settings on and off. However, buttons can also open new applications, type letters or numbers, or start some function of an application, such as telling the Maps application to get driving directions.

Text Fields

These are items that allow you to enter text information, such as a name, telephone number, email or comment. VoiceOver will announce the name of the item and then "text field", and then say "is editing" to indicate that is where the next character will be typed. When a text field is being edited, a virtual keyboard will appear at the bottom of the screen. Formatted text fields can support special text such as bold, italic and underline. Some can even hold pictures or videos such as a web page or Email message. Unformatted fields support only plain upper and lower case letters as well as numbers, symbols and punctuation characters.

7.2 New Gestures

Activate

One Finger Double Tap, or Split Tap. Activates an Icon, presses a button, or puts a Text Field into edit mode.

App Switcher

One Finger Slide Up from the Bottom of the Screen with one finger until you feel the third vibration and third pop sound. It is used to show a list of running apps. You can switch focus to another app, or close specific apps.

Close App

Three Finger Swipe up. This gesture is only available from the app switcher. It closes the app represented by the Current Item.

Scroll Down

Three Finger Swipe Up. Displays the next page of information inside an app, if one exists. This works everywhere but the Home Screen and the app switcher screen. You will hear the "Thunk" sound, if there is no more information to display.

Scroll Up

Three Finger SWIPE Down. Displays the previous page of information inside an app, if one exists. This works everywhere but the Home Screen and the app switcher screen. You will hear the "Thunk" sound, if there is no more information to display.

Jump to Top

Explore, then One Finger Double Tap. This gesture jumps to the top of a long list. Whilst the list is displayed, make an item in the Status Bar the Current Item and perform a One Finger Double Tap anywhere on the screen. Finally, explore just beneath the Status Bar to locate the first item in the screen.

Item Chooser

Two Finger Triple Tap. Activates the Item Chooser which sorts items in a list into alphabetical order. Only displays the items in the current screen.

8. Exercises

1. Launch the Settings app and make the Bluetooth Button the Current Item. Use the Where Am I gesture to determine how many rows are in the Settings screen. How many rows are there?
2. Use the Scroll Up gesture and listen to what VoiceOver announces. What are the numbers of the first and last rows now displayed.
3. Activate the Display and Brightness button.
4. What is the text of the first heading on the new screen?
5. Locate the "Settings, Back" button and return to the Settings app's main screen.
6. Where is the place that most "Back" buttons are situated?
7. Go to the App Switcher screen and close all open applications.

8. Why is it sometimes necessary to close an app?
9. Do you have a third page to your Home Screen grid? If so, name at least two apps that are on it.
10. How can you view all of the items on the Home Screen, plus all of the items in the Dock, in alphabetical order in a single list?
11. What is airplane Mode?
12. What are the three screens found in the Notes Application?
13. What must you do before you can start typing in a Text Field?
14. When the virtual keyboard is first displayed, there are no numbers or punctuation marks. How do you get them to appear?

The answers to these questions can be found on page 20.

Congratulations, you have completed Lesson 2 - Working with Apps. In this lesson you learned seven new gestures, and how to navigate long lists and find items in the lists. You also did some simple text entry. Lesson 3 - Editing Text, will cover a VoiceOver feature called the Rotor, and use it to change typing modes and help you to edit text.

Answers to Section 8 Exercises

1. Launch the Settings app and make the Bluetooth Button the Current Item. Use the Where Am I gesture to determine how many rows are in the Settings screen. How many rows are there?

Once you have located the Settings app, use the Activate gesture to launch it. The Activate gesture is either a One Finger Double Tap, or a Split tap. You can now use the Next Item gesture until Voiceover announces "Bluetooth", and then the Where Am I gesture, the Three Finger Single Tap. Voiceover will announce the position of the Bluetooth button and the total number of buttons in the list.

2. Use the Scroll Up gesture and listen to what VoiceOver announces. What are the numbers of the first and last rows now displayed?

The Scroll Up gesture is a Three Finger Swipe Up. The Where Am I gesture will announce what rows of the list are being displayed.

3. Activate the Display and Brightness button.

The Display and Brightness button is usually on the second screen of the list. Once you are there, use the Explore or a combination of the Next Item and Previous Item gestures to locate the button. Either of the Activate gestures, the One Finger Double Tap, or the Split Tap, will activate the button.

4. What is the text of the first heading on the new screen?

When the Display and Brightness app opens, the "Settings, back" button is the Current Item. Use the Next Item gesture until Voiceover announces a heading. The text of the heading will be "Display and Brightness".

5. Locate the "Settings, Back" button and return to the Settings app's main screen.

The Previous Item gesture will bring you back to the Back button. Then Activate it, using a One Finger Double Tap.

6. Where is the place that most "Back" buttons are situated?

Most "Back" buttons are located at the upper left corner of the application's screen.

7. Display the App Switcher screen and close all open applications.

To display the App Switcher, press the Home button twice quickly. Use a combination of the Next Item and the Previous Item gestures to make an app the Current Item. You can then close the app with a Three Finger Swipe Up. Alternatively, you can perform a One Finger Swipe Up until VoiceOver announces "close" and then perform a One Finger Double Tap.

8. Why is it sometimes necessary to close an app?

Closing an app or multiple apps frees up memory when your iPhone starts to run slow.

9. Do you have a third page to your Home Screen grid? If so, name at least two apps that are on it.

From the Home Screen, you can use the Scroll Right gesture, a Three Finger Swipe Left, to move to the third page. Then you can use the Explore gesture, or a combination of the Next Item and Previous Item gestures to count the icons on the screen. Alternatively, you can use the Read from Top gesture, a Two Finger Swipe Up, to count the number of icons.

10. How can you view all of the items on the Home Screen, plus all of the items in the Dock, in alphabetical order in a single list?

Display the Home Screen by pressing the Home Button. Then activate the Item Chooser with a Two Finger Triple Tap.

11. What is airplane Mode?

Airplane mode prevents your iPhone from sending and receiving any signals. You can't communicate at all, but it is a great way to preserve battery life, especially if you are in a low signal area like 30,000 feet in the air on a plane.

12. What are the three screens found in the Notes Application?

They are the Folders screen, Notes List Screen and Notes Content Screen. The Folders screen shows a list of all Accounts and folders which contain notes. The Notes List Screen displays a list of Notes you have created in a particular folder. The Notes Content Screen displays the content of an individual note, or of a new note that you are creating.

13. What must you do before you can start typing in a Text Field?

You must use an Activate gesture, a One Finger Double Tap, or a Split Tap, to activate the field for editing. If you don't, the characters you type will go somewhere else.

14. When the virtual keyboard is first displayed, there are no numbers or punctuation marks. How do you get them to appear?

You use the "Numbers" key, situated at the bottom left corner of the virtual keyboard. Upon activating this key, a row of numbers appears at the top just like the number row on top of a computer keyboard, and the letters are replaced by several rows of punctuation characters and other special symbols such as hyphens, slashes and parenthesis. The "Numbers" key will change to become the "Letters" key. Activate this key to return to the Letters keyboard.