Android introduction

A **smartphone** is a mobile telephone that has both cellular and internet access. Smartphones allow you to make and receive phone calls and text messages. Because they are connected to the internet, they also can help you share photos, play videos or games, check and send email, and browse the web.

A **tablet** is a portable computer that uses a touchscreen. Most tablets are smaller and weigh less than a computer laptop but are usually bigger and weigh slightly more than a smartphone. Tablets connect to the internet through a Wi-Fi or cellular connection.

How to use a touch screen compared to computer and mouse

- Instead of clicking, you tap.

- The keyboard is onscreen, and you type using that.

- You scroll with your finger instead of using your mouse or pointer.

External buttons

The ports and buttons on your smartphone or tablet will vary depending on the specific model you are using. In general, phones and tablets have a power button and volume control. Smartphones typically have a ring/silent switch.

Unlocking your phone

As we get started using the phone, the first thing we need to do is unlock the device. The way you do this depends on the Android device you have and the choices you made when you set up your phone.

Some phones allow you to unlock a phone with face recognition. Others unlock using your fingerprint, or you can enter a passcode or password.
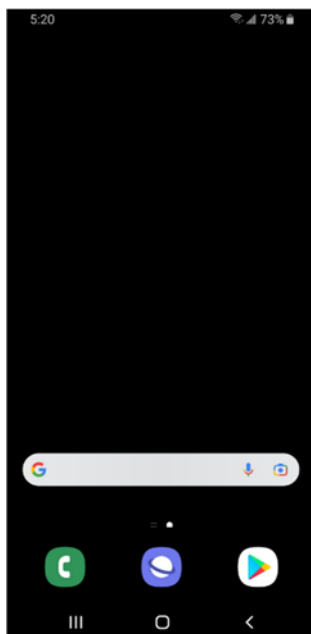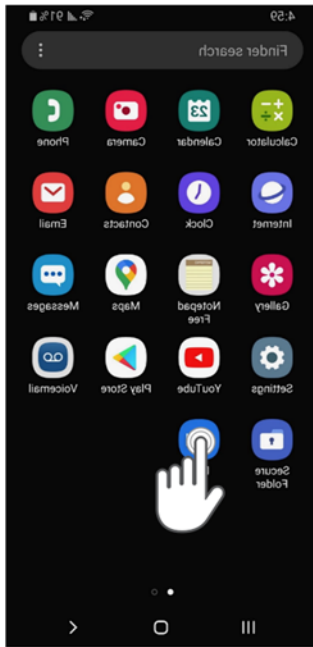
Home screen:

Home screen has some apps already, but you can add more that you like.

Top of screen includes a status bar that includes information about battery percentage, Wi-Fi, and cellular reception.

Navigation buttons are on the bottom.

Tap or swipe up (depending on your phone) to go to the Apps view.

App View:

Android phones come with these basics: phone, messages, email, internet, camera, maps, clock, calendar and more.

Tap your finger on the screen to activate a control, type on a keyboard, or select something onscreen. For example, you can tap on an app to open it. Give it a try. Go to the Maps app on your phone, and open it. (To close the app, swipe up from the bottom of the screen. We'll look at swiping again in a moment.)

Tap-and-hold with your finger to display a menu of options. In this example, if you tap and hold the Meriam-Webster app icon, the menu opens. Give it a try. Go to an app on your phone, and then tap and hold. Do you see a menu appear?
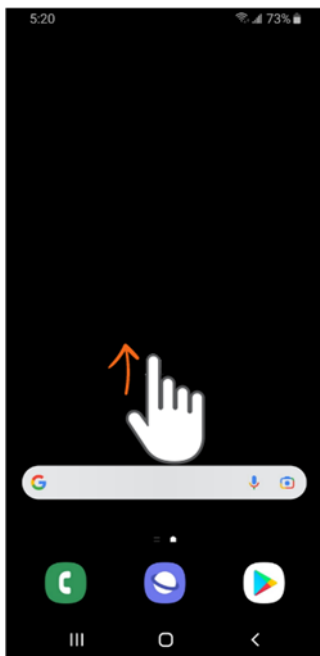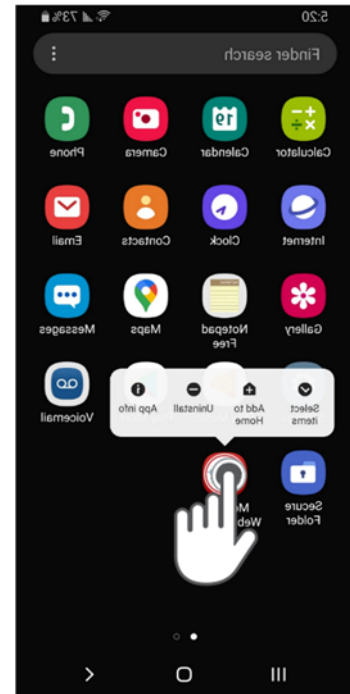
Swiping Up or Down: From the home page, you can swipe up from the bottom of the screen. This will bring you to the Apps view on your phone. Swiping up and down is what you do to scroll through apps and websites. If you're on your home screen, give this a try: swipe up from the bottom of the screen to see your Apps view.
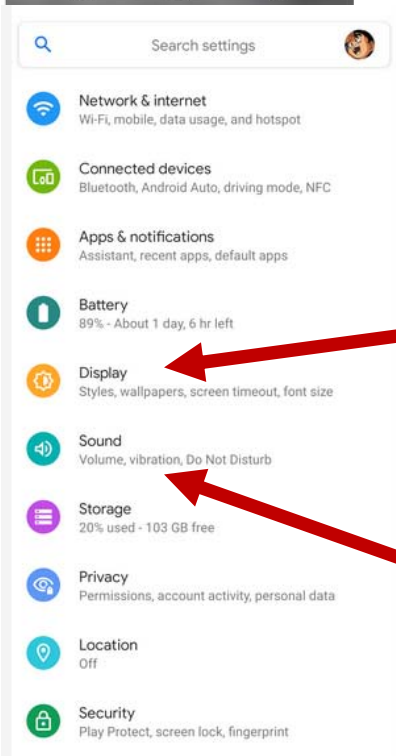
Swiping Left or Right: From the Apps view, you can swipe left to see more apps available on your phone. You can swipe left and right on many apps and websites to navigate around. From your Apps view, give this a try: swipe left across the screen to see the next page of apps.
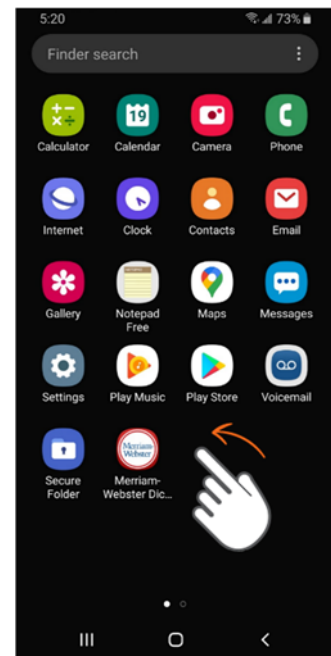
Adjust brightness, font size, display:
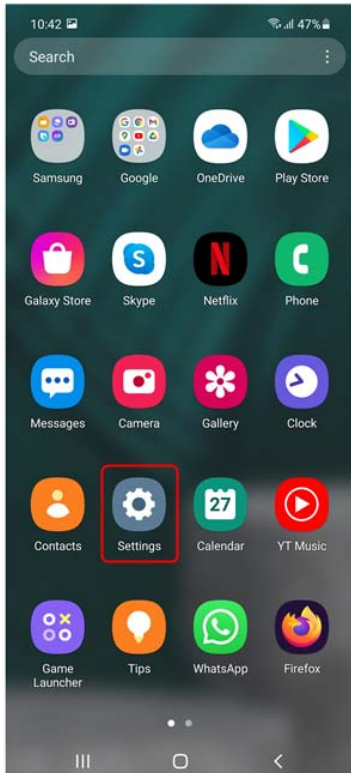
From the home screen, tap the Settings app.

To adjust brightness, font size, etc., tap Display.

To adjust the volume, tap Sound.

Activity #1 External Buttons and Touch Gestures

1. Locate the button to turn on your phone. Turn your phone on.
2. Locate the buttons to turn your phone's volume up and down. Turn the volume all the way down, then halfway up.
3. What do you do if you don't want your phone to ring? Use the button to silence your phone.

Settings – Getting Connected to the Internet:

Mobile devices must be connected to a cellular or wireless network to access the internet and make calls. To connect your phone to a cellular network, you need to have a service plan with a cellular service provider. If you have a cellular plan, your phone will connect to the network automatically everywhere that your cellular plan has coverage. You will know you are connected to the cellular network when you see the cell phone signal symbol IIIII to show the strength of the connection. The number of bars of the cellular connection lets you know how strong the signal is.

Another way you can connect your phone or tablet to the internet is connecting to a Wi-Fi network. All smartphones and tablets can connect to the internet using Wi-Fi.

Many businesses, libraries, and other public places offer free Wi-Fi. You can use these public Wi-Fi networks while you visit these locations. Sometimes, you may need a password to access the network.

If you want to connect your Android phone to a Wi-Fi network in your home, you will need to sign up with an internet service provider (ISP).

Getting Started connecting to Wi-Fi:

If you want to connect to Wi-Fi, you'll click on Settings on the Apps view screen.

Then you'll tap on Connections.

You'll see a list of Wi-Fi networks that are nearby. Networks with a lock icon require a password. Networks without a lock are public and do not need a password. Some public networks may ask you to accept an agreement before they will allow you to connect your device.

Once you are connected to the Wi-Fi network, you will see the Wi-Fi icon in the status bar at the top of your device.

Common Apps:
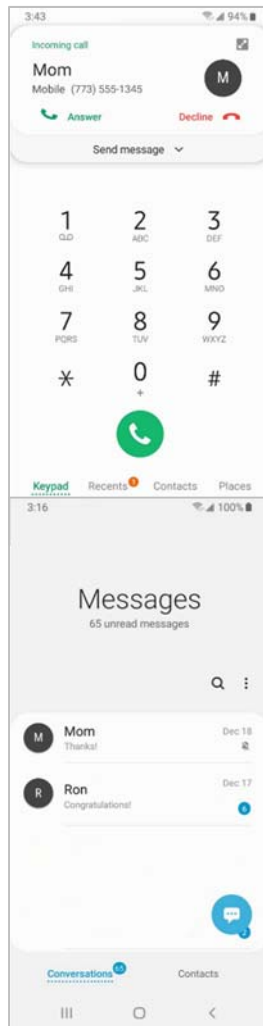
Phone:

When the app opens, you will see the keypad. You will also see options to go to other screens for recent calls, your contacts, and places.

There are two main ways to make a call. You can tap the Contacts icon to select a name listed in your Contacts app. Or you can type a number on the keypad. After dialing a number, you'll tap the green phone button to start the call.

When you're ready to hang up, tap the red phone button to end the call.

To answer incoming calls, tap on Answer.

Message:

If you want to send a text message, you'll use the Messages app. To open the app, tap on it on the Apps view screen. When you open the app, you'll see your current conversations.

You can use the Search box to search all of your text messages. You can tap the blue button to start a new conversation, or you can tap a current conversation to send or read a new messages and send a response.

To create a new text message conversation, you'll tap on the blue button to start a conversation.

You can send a text message to a someone by typing their cell phone number in the to field, or, if the person is in your contacts, you can begin to type their name. Once the name of the person displays, you'll tap it to select it. Then you'll type your message and then tap on the blue arrow to send it.
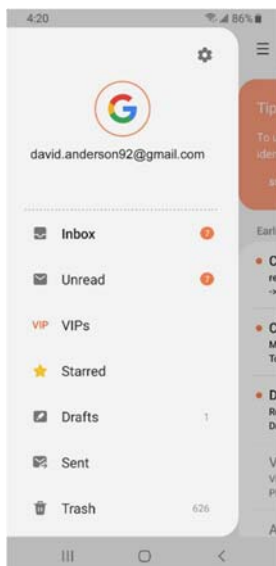
Email:

If you want to read or send email, you would tap on the Email app from the Apps view.

In the example on the screen, this individual (David) used his Google account to set up his email on his mobile device. When you open the email app on your phone, you'll see the Gmail account you used to set up your phone.

You can add more apps to your phone in the Settings app. We won't go through these steps, but it's helpful to know that you can add an email account from almost any email provider using the Settings app.
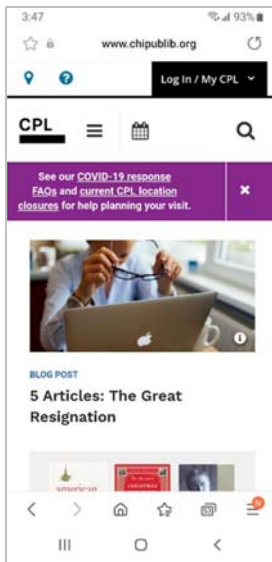
Browser:

When you want to search the web from your phone, tap on the Internet icon to launch a web browser. This app works much like a web browser on a computer.

In this example, we can see the homepage of the Chicago Public Library. You can search the web or visit a website using the address bar on the top.

Once you have a webpage up in the browser, you can swipe up to scroll down the page.

Camera:

When you want to take a picture or video, tap on the Camera icon to launch the camera app.

You can use these buttons to switch between camera modes—photo and video.

This menu across the top allows you to change the camera settings, turn the flash on or off, set a time, change the aspect ratio, or add a filter.

Tap this button to take a picture or record a video.

After you take a picture, you have the option to like the image, edit the image, share the image, or delete the image.

If you want to share your photo or video by email, text message, or other sharing platform (such as social media), tap the Share icon.
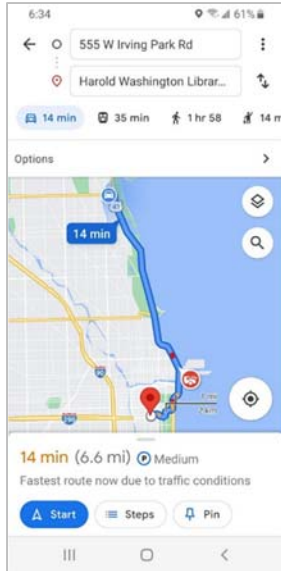
Maps:

When you want to find an address or get directions, you'll tap on the Maps icon to launch the maps app. As you can see in this example, Android devices come preinstalled with Google Maps.

To do a search, enter the location into the "Search here" box.

Once you have the location on the screen, click on Directions to get directions to the location.

From there, you can select directions for driving, public transit, walking, and more.

To get live directions similar to a GPS, you must have a data plan and be connected to a cellular or Wi-Fi network. You may also need to give the app permission to view your location, or you can add your location manually.

Adding Apps to your Android (Play Store)

To add apps on any Android-supported device, you would tap on the Play Store icon, located on the Apps view screen.

From the Play Store, you can browse Featured Apps, look through categories, or search for an app by name.

Here we can see results from a search for a dictionary app. Let's take a look at the first app in the list.

If an app has an Install button instead of a price, like this example, the app is free. If you instead see an Open button, the app is already installed on your device. From this page you can learn more about the app, including preview pictures and customer reviews.

To install the app, you would click on the Install button. Once the app downloads, it appears on your Apps view screen. If the app is not free, you may be required to authorize the purchase by typing in your email account password or by verifying with your facial recognition or fingerprint.

To delete an app, tap and hold on the app. A menu will appear where you can uninstall the app.

Activity #2:

What app do you use to:

- Send an email? _____
- Search the web? _____
- Send a text? _____
- Record a video? _____
- Make a phone call? _____

Wi-Fi Security Tips

To keep your information safe when you connect to Wi-Fi, follow these Wi-Fi security tips.

Make sure you trust a public network before connecting to it. Do you know who set up the network?

Try not to send private information over public Wi-Fi networks.

If you do send personal information, make sure the website is secure and begins with *https.*

Set up a password for your home network to block intruders from accessing it.

ACTIVITY #3: Getting Connected

Navigate to the available Wi-Fi-Networks screen on your device. Write down what steps you took to get there.

_____

_____

Write down one of the networks that is secure (if applicable).

_____

Write down one that is public (if applicable).

_____

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On ⬤	
Available networks	
🛜 MyWiFi	
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You're relaxing in a coffee shop. You want to connect to Wi-Fi and do some personal tasks on your smartphone. On your phone, you see this list of Wi-Fi networks. Which would you connect to? Why or why not?

_____

_____

You want to do some online banking at the coffee shop. Is this a good idea on the Wi-Fi network you're on? Why or why not?

_____

_____

Settings:
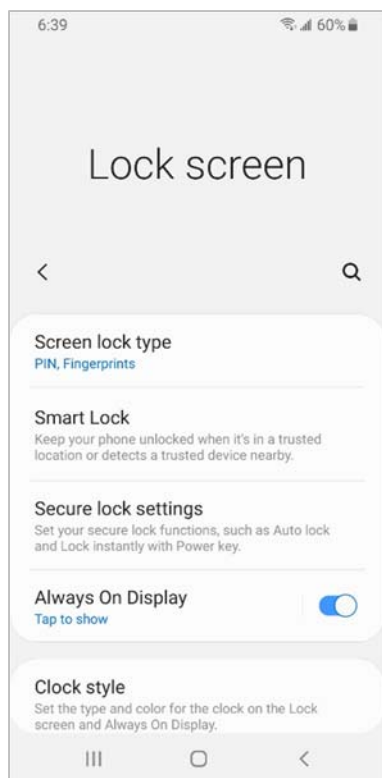
Possible methods: PIN, passcode, Face ID, iris scan, or fingerprint

Mobile devices come with settings to help protect your device and your information. One of the most important things you can do is set a personal identification number (PIN) or passcode to access and use your mobile device. This will help protect the data that is stored on your device if the device is ever lost or stolen. Each time you turn on your device or wake up the screen, you will see a prompt to unlock it.

To set a pin or passcode, tap Settings.

Then look for the option to lock the screen.

You'll find the options there.

You can also use unlock your phone using Face ID, iris scan, or fingerprint. You would need to follow the prompts to store that information in your Settings before you can enable this feature.
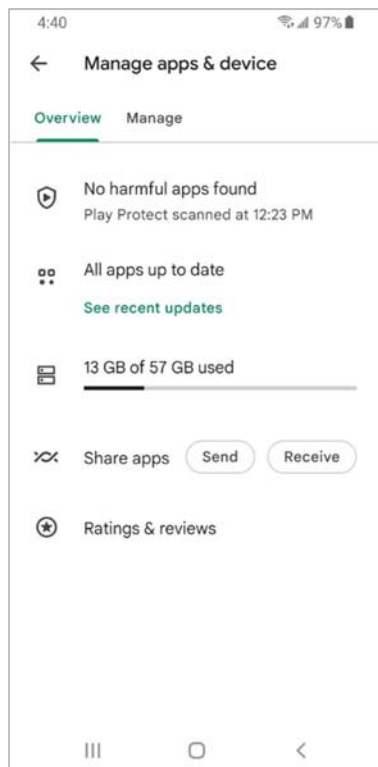
App security:

Many apps on mobile devices have regular updates. Sometimes the updates have new features, but most importantly, updates fix bugs and problems and increase security. Android will automatically update the apps when the phone is connected to a Wi-Fi network.

You can see these settings by going to the Play Store.

Then go into your account and tap "Manage Apps & Devices."

A list of how many updates are available displays. In this example all of the apps are up to date.

Privacy settings:

Privacy settings are also important for mobile devices. Using your phone's privacy settings, you can decide which apps have access to information and data stored on your device, such as your location, photos, and microphone.

To access the privacy settings, tap on the Settings icon.

Then tap on security and privacy option

Then tap Privacy and follow the prompts. The way you set your privacy settings may differ depending on the device manufacturer. Because there's a variety of Android mobile devices, you may notice slight differences between your device and this example.

Activity #4:

Which of these apps seems more trusted? How do you know?

Security Tips:

- Here are some security tips to keep you and your mobile device safe.
- Set a passcode on each of your mobile devices to prevent someone from accessing the information stored on a device if it is lost or stolen.
- Download trusted apps only. You can determine this by reading reviews, ratings, and privacy statements.
- Review the privacy settings on your device. Adjust your settings to control which apps have permission to access your camera, location, microphone, and personal information.
- Adjust your notifications to change how much content will display on the lock screen when messages come in.
- Check that the apps and operating system are running the most up-to-date versions available, or set these to automatically update.