



# Android 101

Android is a mobile operating system that is used in many smartphones and tablets. Google owns, maintains, and develops the Android operating system. There are hundreds of Android devices to choose from. Each Android device comes with its own unique features. This guide is designed to help you with the basics. Your device may look different depending on the manufacturer and software version that you are using.

**Additional resources:** <http://www.gcflearnfree.org/devices/androidbasics>

<http://www.dummies.com/how-to/consumer-electronics/Android-Tablets.html>

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## Touring Your Android Device

### Getting started

The first time you turn on your device, you'll be asked to set up a few different things, including your preferred language, the date and time, and (most importantly) your **Google account**. If you don't have a Google account yet, you can create one during the setup process.

There are a few reasons this step is so important. In short, your Google account is your **identity** on your device. Not only does it connect you to the **cloud**—where things like photos and contacts are stored—but it also gives you access to the **Play Store**, where you can download and purchase apps. The more you use your device, the more you'll see how integrated your Google account really is.

### Getting to know your device

#### *The Home Screen*

This area is the Home screen. It's designed to house your favorite apps and a few other important features, so you can always get to them easily. If you want, you can even create multiple Home screens to customize the layout of your apps. To navigate between screens, swipe left or right.



### Status Bar

The area in the top-right displays current information about your device. This includes things like signal strength, Wi-Fi status, battery life, and the time.

### Google Now/Search

Many newer devices come with a tool called Google Now. This bar gives you easy access to some of its features.

For example, if you tap the **microphone**, you can do a quick voice search or voice command. If you tap the **bar itself**, you can browse content that Google thinks might be relevant to you (like nearby traffic delays).

### Notifications

Notifications are cues or alerts that let you know when something is **happening** on your device.

To view your notifications, **swipe down** from the top of the screen—this will open the **Notification Shade**. From there, you can see more information about each notification, or tap one to go to the source.

### Widgets

This is an example of a **widget** that you can add to your device. Basically, widgets are like mini versions of your apps—they condense certain features so you can access them directly from the **Home** screen.

This one, for instance, lets you control important **settings**, like Wi-Fi and screen brightness. You may have different widgets on your device, or you may have none at all—it just depends on your make and model.

### Apps

The icons you see here are actually shortcuts to your **apps**. To open one, all you have to do is tap the icon you want. You can add, remove, or re-arrange these apps any way you like.

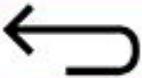
### Favorites Tray/Dock

The tray near the bottom of the screen is for your most frequently used apps. It might include things like your camera or web browser by default, but you can always customize it with your own personal favorites. The tray should also include shortcut to the Apps view, which gives you access to every app on your device (not just the ones on the Home screen).

### Navigation Buttons

Every Android device has a set of **navigation buttons**. Usually they're part of your software but they can also be part of your hardware (i.e., built into your device).

The two most important buttons are **Home**—for returning to the Home screen—and **Back**. On newer devices, you should also have a **Recent Apps** button. This feature lets you navigate between open apps, just like in the example below.

Icon	Name	What It Does
	Back	Go back, close, or dismiss the onscreen keyboard.
	Home	Go to the Home screen.
	Recent	Display recently opened apps.
	Hide	Dismiss the onscreen keyboard or Recent Apps list.

## Waking & Sleep

### Turning off & on

- To turn on your Android tablet, press and hold the Power/ Lock button. Once the start-up logo appears, release the power button.
- To turn off your Android table, press and hold the Power button. Select Power Down. Touch OK.

### Sleep

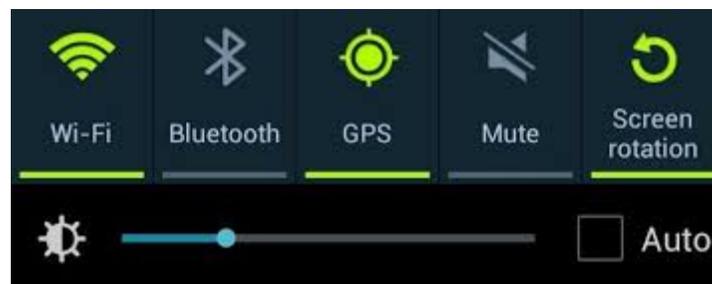
To activate the Sleep function on your device, simply tab the Power/ Lock button. To wake the device up, press the Power/Lock button or the Home button.

## Common buttons

Icon	Name	What It Does
	Action Bar	Displays a pop-up menu; this teensy icon appears in the lower right corner of a button or an image, indicating that actions (commands) are attached
	Add	Adds or creates a new item; the plus (+) symbol may be used in combination with other symbols, depending on the app
	Close	Closes a window or clears text from an input field
	Delete	Removes one or more items from a list or deletes a message
	Done	Dismisses an Action bar, such as the text-editing Action bar
	Edit	Lets you edit an item, add text, or fill in fields
	Microphone	Lets you use your voice to dictate text
	Overflow	Displays a menu or list of commands
	Refresh	Fetches new information or reloads
	Search	Searches the tablet or the Internet for a tidbit of information
	Settings	Adjusts options for an app
	Share	Shares information stored on the tablet via e-mail, social networking, or other Internet services
	Star	Flags a favorite item, such as a contact or web page

## Quick Settings

Some Android devices contain a Quick Settings toolbar that can be access by swiping down from the top of the screen. The Quick Settings bar usually contains some of the following options: Wi-Fi, Location, Mute, Screen Rotation, Bluetooth, Screen Brightness & Volume.



## Using the Keyboard & Touch Screen

### Touch gestures

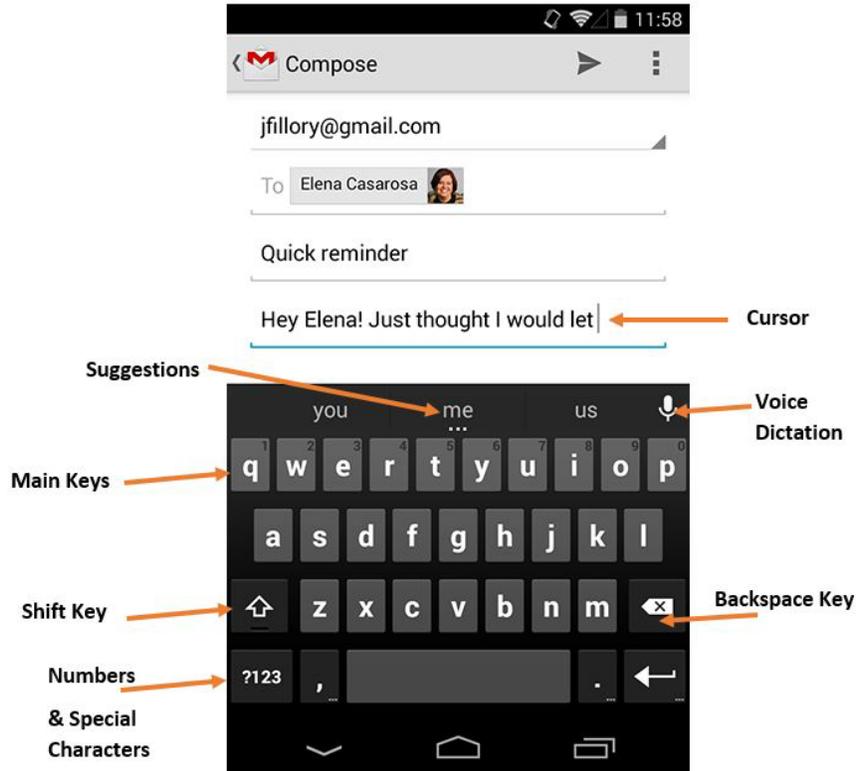
Gestures are what you'll use to interact with your device's touchscreen. For instance, instead of clicking something with your mouse, you'll tap the screen with your finger. We'll refer to gestures throughout this tutorial, so make sure you're familiar with the examples below.

- Tap to "click", select, or open something on your device, like a button or an app
- Tap and hold to occasionally access other options (think of this as "right-clicking")
- Drag to scroll up and down, left and right, or any other direction on the screen
- Swipe left or right to "flip through" things, like pages on the Home screen, photos, or pages in an e-book
- Double-tap to zoom in or out in certain apps, like Maps or Chrome
- Pinch (i.e., open or close your thumb and forefinger) to zoom in or out almost anywhere
- Using the keyboard

## Using the Keyboard

By now, you've probably already encountered the keyboard on your device. It's designed to pop up automatically whenever you need to type something; for example, when you're composing an email, searching the Web, or filling out a form.

This keyboard may be smaller than a traditional keyboard, but it comes with several convenient shortcuts to make typing easier. Take the example below. Things like symbols, numbers, and capital letters are actually easy to access—you just have to know where to look.



## Settings & Preferences

The following are items that you can adjust by opening the settings app on your device:

- Connections (WiFi & Bluetooth)
- Sound
- Display
- Lock Screen
- Wallpaper
- Software Version & Update
- Storage

**Content Source:** GCFLearnfree.org & Dummies.com

### *To open your settings:*

1. Open the **Settings** app on your device. If it isn't already on your **Home** screen, you'll find it in the **Apps** view.
2. Your settings will appear.
3. Scroll through the list to find the section or setting you're looking for. Common sections include **Wireless & Networks** (where you can manage your connections) and **Device** (for personalizing your device).

### Connecting to a Wi-Fi Network

Do you have access to a nearby Wi-Fi network (for example, at home or at work)? You can easily connect to it using the steps below. For networks that you access repeatedly, you generally only have to do this once. The next time you're in range, you'll be connected to the network automatically, as long as you leave the Wi-Fi feature turned on.

1. Make sure you're on the Home screen, then open the Apps view. Your icon may look different from ours, but it's usually found in the Favorites tray near the bottom of the screen.
2. Tap the Settings icon. You may need to swipe through a few screens to find it.
3. Scroll through the list of settings until you find the Wi-Fi feature. If it isn't already set to ON, tap the control on the right.
4. When you're done, tap the word Wi-Fi. This will open a list of nearby networks.
5. To join a network, just tap the one you want. If the network is secured, you'll need to enter a password to connect to it.
6. When you're done, your device will remember the details of the network (including the password if applicable), so you can connect to it automatically in the future. If you ever want to change these settings, tap and hold the network name, then choose Forget or Modify.

### Updating your Software

1. Navigate to the Setting menu of your device. On most Android devices this can be done via the app menu or notification bar.
2. Scroll down the Settings menu and click on 'About Phone' or 'About Tablet'. If you have a tabbed settings menu then this will appear in the 'general' section.
3. The menu can vary slightly from device to device but click the 'Software Update' or similar button. This section of the menu will also detail which version of Android your device is running.
4. Your phone or tablet will now search for an available update. If you are taken to another menu, select the 'Software update check' button or similar.
  - If an update is available your device then you will be asked whether you wish to install it. If you select yes then the system will download and install the [new software](#) and reboot.
  - Note: Your device may require a Wi-Fi connection to search for an update. We also recommend downloading the software over Wi-Fi because the [file](#) size can be large.

### Changing the Wallpaper

To set new wallpaper for the Home or lock screen, follow these steps\*.

1. **Long-press any empty part of the Home screen.**  
The empty part is any place you don't see a shortcut icon or widget.  
For a long-press, touch the screen and keep your finger down.  
A Wallpaper menu will appear.
2. **You might be able to set wallpaper from the Settings app.**  
Choose Display, then choose Wallpaper.
3. **If prompted, choose the Home screen or the lock screen.**  
Setting the lock screen wallpaper is not possible on some tablets.  
You may also find an option to set both wallpapers with the same image.
4. **Choose a wallpaper type. Three options are available.**

- a. *Gallery*: A still image from the Gallery app.
  - b. *Live*: An animated or interactive wallpaper from a list. (This option may be available only for the Home screen wallpaper.
  - c. *Wallpaper*: Choose an image from the wide range preinstalled on the tablet.
5. **Choose the wallpaper you want from the list.**  
 For the Gallery option, browse the albums to choose an image. Crop the image to select the portion you want to put on the Home screen  
 Live wallpaper features some form of animation which can often be interactive. Otherwise, the wallpaper image scrolls slightly as you swipe from one Home screen page to another.  
 For certain live wallpapers, a Settings icon may appear so you can customize certain aspects of the interactive wallpaper.
6. **Touch the OK or Set Wallpaper button to confirm your selection.**  
 You're done! The new wallpaper takes over the screen.

\*Source: <http://www.dummies.com/how-to/content/how-to-change-wallpaper-on-android-tablets.html>

## Working with Apps

### *Basic apps*

Ready to get started with some everyday tasks, like email and text messaging? We'll discuss these things in detail over the next few lessons, but in the meantime you can check your device for these **basic built-in apps**. They may go by slightly different names depending on your phone or tablet, but the icons will usually give you some clue.

- **Phone** for making phone calls
- **Messaging** for text messaging, or **Hangouts** for text messaging plus Google chat
- **Email** for managing your email, or **Gmail** if you have a Gmail account
- **People** for your contacts list (may also be called **Contacts**)
- **Chrome** for browsing the Web (may also be called **Internet** or **Browser**)
- **Camera** for taking photos and videos
- **Play Store** for downloading apps
- **Settings** for adjusting your settings



Android devices include many built in Google Apps such as Chrome, Gmail, Maps, Drive, etc.

### *The Hangouts app*

Many newer devices come with an app called **Hangouts**. You can use it to send and receive text messages just like you would with the Messaging app—the difference is that it can be used for **Google chat** as well. This makes it a great choice if you do a lot of texting *and* chatting. To learn more, check out [Hangouts](#) on Google Play.

### *Finding a specific app*

 Apps can be found in two places on your device. The first is the **Home** screen, which should include shortcuts to several common apps by default (you can even add your own—we'll show you how in a minute). The second is the **Apps** view, where you can access every app on your device.

### *Purchasing apps*

New apps can be downloaded or purchased using the Google Play Store app. The Play Store gives you access to thousands of apps, services, and other media—everything from games like Angry Birds to tools that can help you with everyday tasks.



Many of the apps in the Play Store can be downloaded for free. Others cost as little as \$0.99, although some may be more expensive. To purchase apps from the Play Store, you'll need to have some form of payment on file with your

Google account, such as PayPal or a credit card. If you don't have this set up yet, that's OK—the app will walk you through it.

## Managing Apps

### *To add an app to the Home screen:*

Adding an app to the Home screen is a lot like adding a shortcut on your computer desktop. You're not moving or altering the original app in any way—you're just creating a **link**. Ultimately, this is a great way to make your favorite apps easier to get to.

1. Open the **Apps** view, then find the app you want.
2. **Tap and hold** the app (be careful not to let go!), and you'll be taken to a special view of your **Home** screen.
3. **Continue to hold** the app while you decide where to put it. If your primary Home screen is full, you should be able to access/create another one by dragging the app all the way to the **right**.
4. **Release** the app once you've chosen a spot, and it will be added to your Home screen.

To navigate between Home screens, **swipe left or right**.

## Rearranging Apps

### *To move (or remove) Home screen apps:*

With a little know-how, you can easily **rearrange** your Home screen icons any way you want. You can also **remove** any shortcuts you don't need, like if your device came with a shortcut you don't really use.

1. Make sure you're on the **Home** screen, then **tap and hold** the shortcut you want to edit. This should give you control of the icon.
2. To **move** it, drag and drop the icon to a **new location**.
3. To **remove** it, drag the icon to the **Remove** option. (Keep in mind that this won't delete the app from your device. It will only remove the shortcut from the Home screen.)

### *Create a folder*

You can create a folder by tapping and holding your finger on the Home Screen until a menu appears. On the menu, select “Folder”. Enter a name for the folder and click OK.

## Viewing Recent or Open Apps

1. Select the Recent Apps button (as depicted to the right).
2. Scroll through and click on the app you would like to open.



To close an app, navigate to the Recent Apps. Select “Close All” or tap and hold your finger on the app you’d like to close and select “Remove from List”. You can also close apps in the Task Manager by selecting “End” for any apps you’d like to close.

## Taking photos

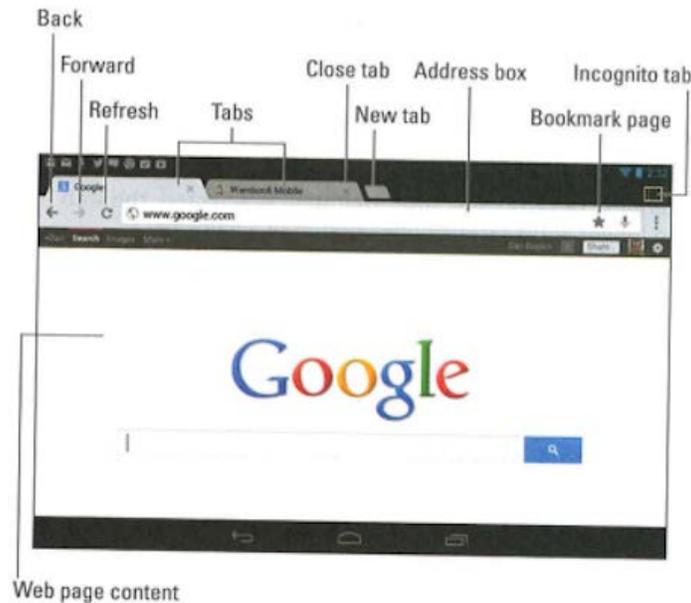
The camera app can vary quite a bit from device to device. Not to worry—the interface should still be fairly intuitive. If you have questions about how your particular camera works, try checking your **manual** or your manufacturer's **website**.

1. Open your device's **Camera** app
2. The camera view should appear.
3. If the picture is blurry, try tapping your **subject** to refocus.
4. To take a picture, tap the **camera** button.
5. Many devices give you the option to launch the camera directly from your **lock screen**. To see if your device has this feature, look for an **icon** like the example below.

## Surfing the Web

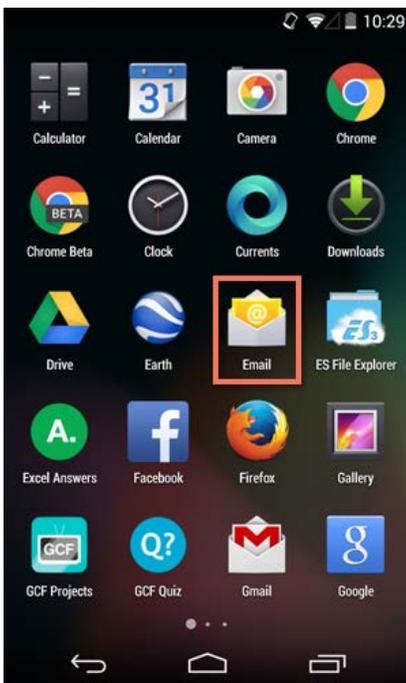


All Android tablets feature an app for surfing the web. Your tablet may have the Google Chrome app or another web browser app such as Internet or Web. The Chrome app is free to download if it is not already installed on your device. To go to a specific website or to browse the web, open up Chrome or another Internet app. Once the app is open, type the web address of keyword search term in the address bar towards the top of the screen.



## Email

### Getting started with email



**Email** is probably one of the first things you'll want to set up on your device. All you have to do is sign into your account using the appropriate app—then you can start sending and receiving messages just like you would on a regular computer.

The big question is, which email app should you use? There are quite a few options to choose from. Most people use the "official" app for their email service, such as the **Outlook** app by Microsoft or the **Gmail** app by Google. Here are some tips to help you get started. **If you have a Gmail account**

If you use Gmail, you're in luck. The Gmail app comes **pre-installed** on every Android device, so you don't have to download anything from the Play Store. In addition, there's a good chance your account is connected to the app already (as long as you used the same **Google account** to set up your device).

The Gmail app is designed to work a lot like your regular inbox. You can read and reply to messages and archive or delete the ones you don't want. You can even add **multiple accounts** to the app, so you can access them all in the same place (we'll show you how below).

#### *If you use a different email service*

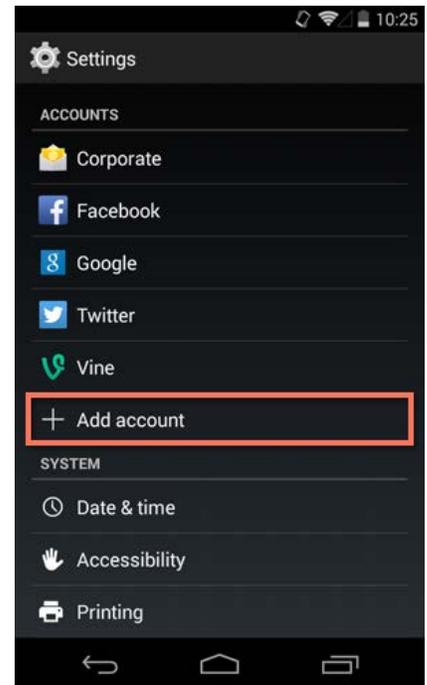
Gmail isn't the only service with its own app. All of the primary services have one, including **Outlook, Yahoo!, Mail.com, and AOL**. All you have to do is download the app from the **Play Store**, then install it on your device.

Alternatively, you can use the all-purpose **Email** app, which comes pre-installed on most devices. Each version of this app is different, but it's generally designed to be more universal. In other words, you can use it to set up **any type of account**, including Outlook, Yahoo!, and everything in between. You can even use it to set up your **work email** (if your job or business uses some type of corporate account).

#### *Adding multiple accounts*

Almost every email app lets you add **more than one account** to your device. This option is great if you have multiple addresses—like separate ones for work and school—and you want to be able to access them in the same place.

The process for this can vary, but the general idea is the same. Start by going to your device's **settings**, then look for the option that says **Add Account**. Next, select the **account type**—for example, Google or Yahoo!—and follow the instructions.



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#### **Additional Resources:**

- <http://www.gcflearnfree.org/devices/androidbasics>
- <http://www.dummies.com/how-to/consumer-electronics/Android-Tablets.html>
- [https://www.android.com/intl/en\\_us/history/](https://www.android.com/intl/en_us/history/)