

2. Exploring a Computer



At the end of this lesson, you shall be able to:

- start and shut down a computer
- connect different devices to a computer
- explore the benefits of a computer.



Exploring a Computer: A computer also has many uses and benefits. Identifying these benefits can help us focus on how to use computers well. It will also inspire us to do things a lot faster, smarter and better. From learning about your trade to getting a job, a computer can be your best friend in today's world. It can help you know and grow to unimaginable heights!



What I already **K**now

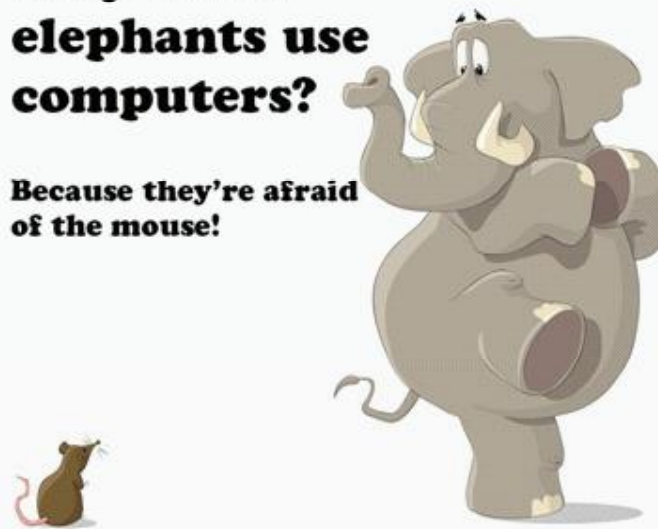
What I **W**ant to find out

What I **L**earned



**Why don't
elephants use
computers?**

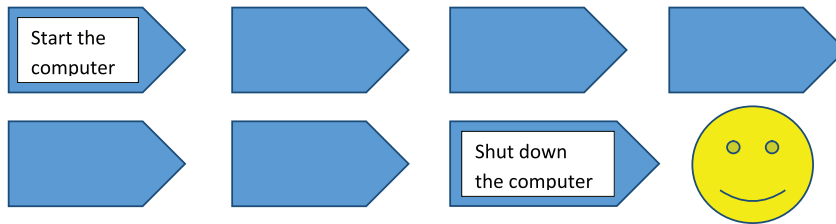
**Because they're afraid
of the mouse!**



Don't be an elephant, when you can be a friendly mouse!



1. The starting and ending steps of this process are given below. Fill in the rest of the steps. Choose a partner and consult your instructor for help, if necessary.



Now let us understand how to systematically start a computer, connect some important devices to the computer (a mobile phone, a USB drive or pendrive, and a speaker) and then shut it down.

2. Starting or booting a computer

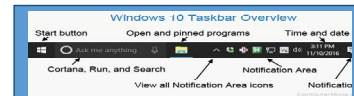
Starting a computer is also called booting a computer. Here is how you can boot a computer.



PRESS **POWER BUTTON** of a Computer to start it..

After Booting a computer, you will be able to see a Home Screen like this. This home screen is called a Desktop.

This is the start button. Press the Start Button in the **KEYBOARD** or use your **MOUSE** to click on it. Click the left button of your mouse. The Start Menu appears once you click on this button.



The taskbar is an element of an operating system located at the bottom of the screen. It allows you to see the programmes that are currently open. You can even start certain programmes by clicking here with the mouse.

Type here to search

Search Box

- The "Search box" on the Taskbar will allow you to search within your documents and files or on the Web for anything you write.
- The initial results will appear within the Start Menu itself.

3. Connecting devices to the computer

Once you start a computer, you can connect many devices to it. Let us learn about 3 simple devices. These devices can help transfer pictures from phone to the computer.

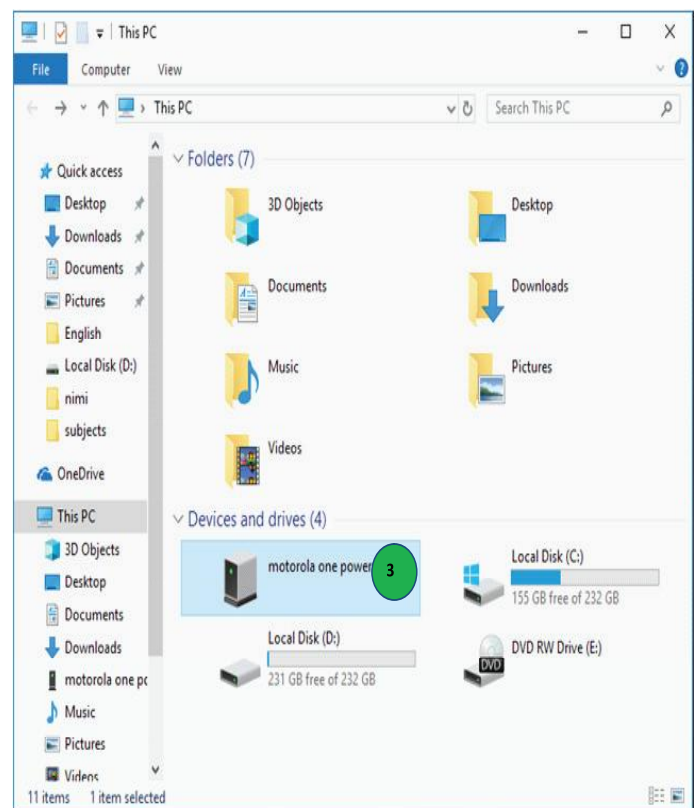
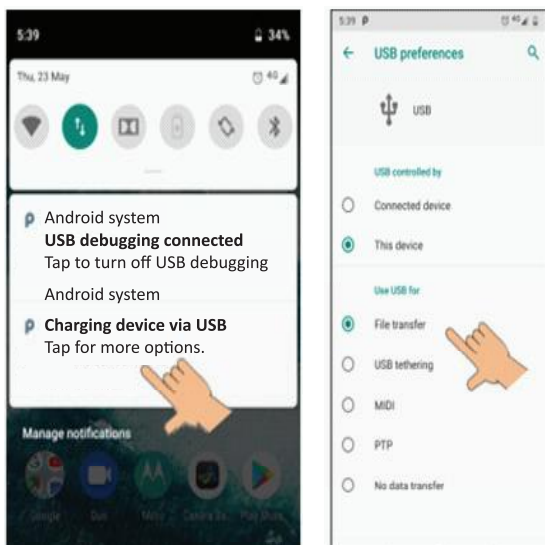
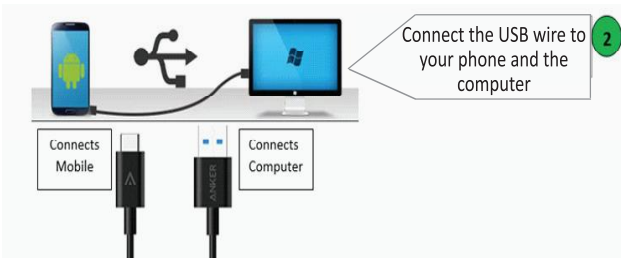
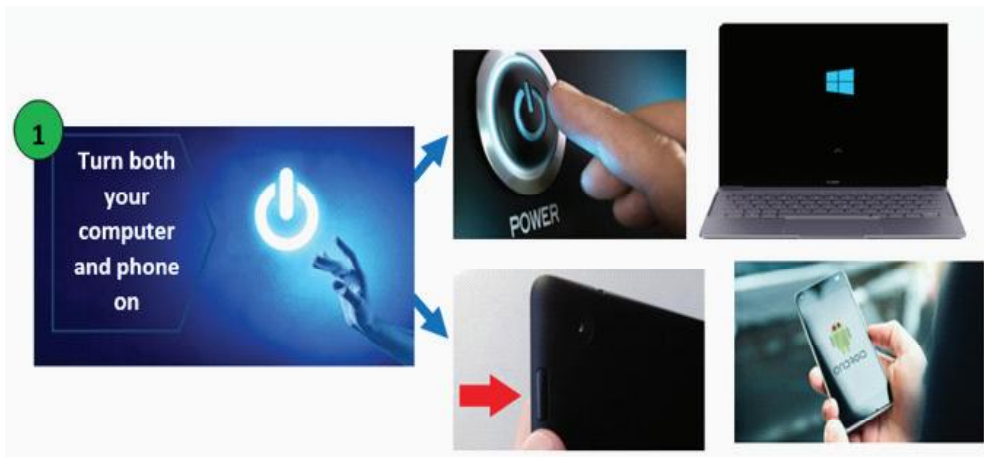
a. Mobile phone

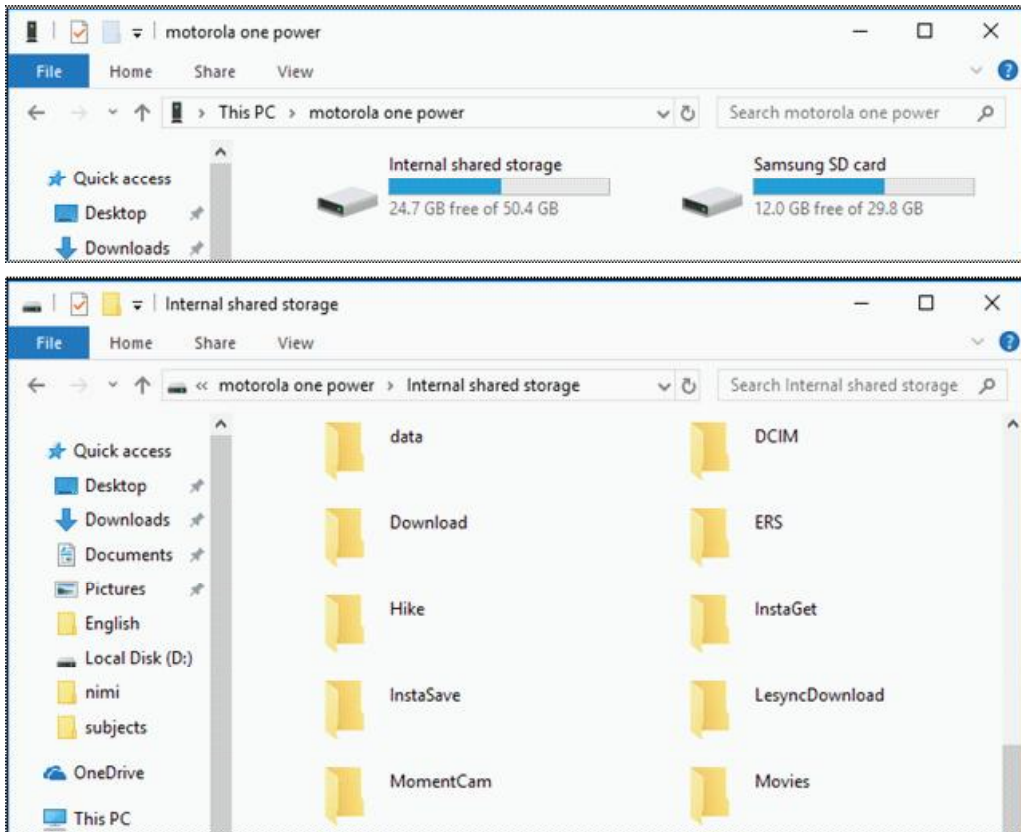
There are 3 important steps to connect your phone to your computer.

Turn both your phone and computer on

Connect the USB wire to your phone and the computer

Locate the phone folder on the computer and transfer the files





b. USB Drive or Pendrive

There are 3 important steps to connect a USB drive phone to your computer.

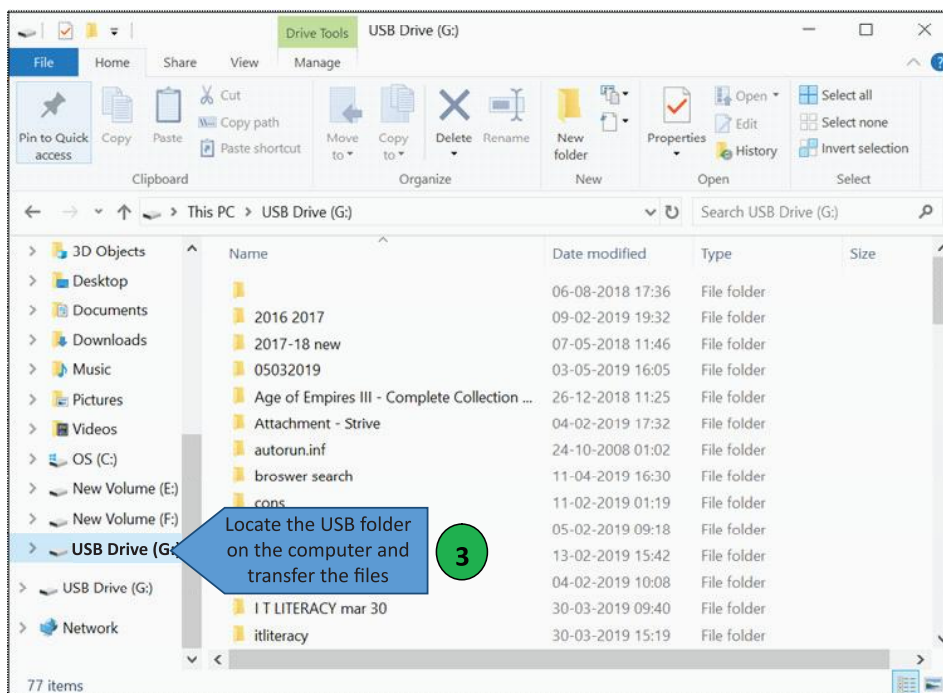
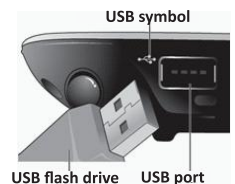
1

Start your computer



2

Connect the pendrive to the USB part on the side of your computer






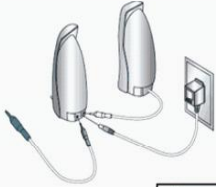
c. Speaker:

There are 3 important steps to connect a speaker to your computer.

Start Your Computer

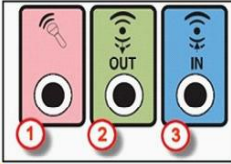



Connect the speaker to a power or electricity socket




Connect the speaker wires (as per the colour) to the CPU or laptop

Motherboards with 3 rear audio connectors

1. Microphone (on some computers, the microphone can also be configured as the Centre/Subwoofer out through the Sound Manager software)
2. Line-out (to front powered speakers)
3. Line-in (on some computers, the microphone can also be configured as the rear speaker out through the Sound Manager software)





1. Side speaker out
2. Rear speaker out
3. Centre and subwoofer out
4. Microphone
5. Line-out (to front powered speakers)
6. Line-in

4. Shutting down a computer


A computer can be shut down in 2 simple steps.

1

 This is the start button. Press the Start Button in the **KEYBOARD** or use your **MOUSE** to click on it.



2



1. Click on

Click on the **Shut Down** button. This switches off your computer.



Complete the What I learned column in the KWL chart.



What did you learn today?

What are some other common devices that are connected to a computer?

How do you think a computer can benefit you in your life and work?



Now talk to your trainers, friends and elders to find out more about the benefits of a computer. You can even use google to find out more!

<https://in.video.search.yahoo.com/yhs/search?fr=yhs-trp-001&hsimp=yhs-001&hspart=trp&p=comouters+basics+tutotal+youtube#id=3&vid=af478e149aabd775ed40219e0a40dd63&action=click>

<https://in.video.search.yahoo.com/yhs/search?fr=yhs-trp-001&hsimp=yhs-001&hspart=trp&p=comouters+basics+tutotal+youtube#id=4&vid=11e7f17761a61ad9672251c8a1162191&action=view>



3. Basics of Operating System



At the end of this lesson, you shall be able to:

- identify the basics of an operating system
- recognize the types of operating systems
- describe and list operating systems.



Basics of Operating Systems: A computer has multiple programmes that run in the background. These programmes do different tasks so that we, as users, get to experience and enjoy many of its benefits. When we open a programme like YouTube, the computer runs several software programmes in the background – different software programmes run together for sound, for colour display, for video display, for moving the mouse, for internet, etc.

A computer's director has a special name – Operating System (OS). This OS makes sure that different programmes run at the same time and yet do not interfere with each other. The operating system is also responsible for security, ensuring that unauthorized users do not access the system. The operation of a computer is controlled by a software known as the Operating System (OS). This software is as important to the running of a computer as its hardware. The operating system directs the input and output of data, keeps track of files, and controls the processing of computer programmes allocating computer resources to various functions.

The operating system also serves as an interface between the computer and the user. It helps the user give commands to the computer. For example, pressing on the play button indicates that you have given a command to the computer to play something. An OS helps the computer and user understand each other. Microsoft's Windows OS and Apple Inc.'s Mac OS are examples of operating systems for personal computers.

The operating system controls the behind-the-scene activities of a computer. It manages a computer's memory, file systems, network connections, and input/output devices, such as the keyboard, mouse, monitor, speakers, printer, and modem. Critically, the operating system also controls access to the central processing unit (CPU), which is the heart of the entire computer system.

Early computers had no operating system. For this reason, they could perform only one task at a time, such as running one programme or printing. Modern operating systems allow multitasking, in which many processes can be active at the same time.



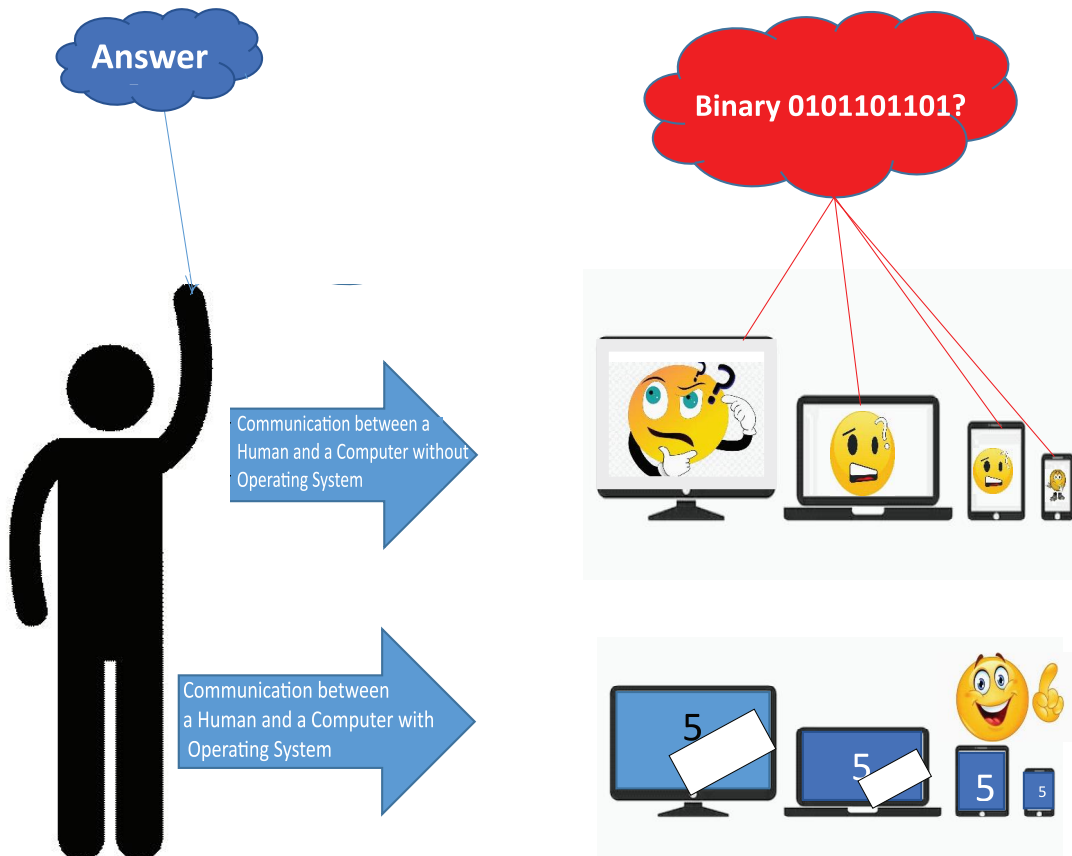
What I already **K**now

What I **W**ant to find out

What I **L**earned



1. Basics of Operating System



An operating system is the most important software that runs on a computer. It manages the computer's memory and processes, as well as all of its software and hardware. It also allows you to communicate with the computer without knowing how to speak the computer's language. Without an operating system, a computer is useless.



2. Understand the types of Operating Systems



Linux is much more stable than Windows, it can run for 10 years without the need of a single Reboot. Linux is open source and completely Free. Linux is much more secure than Windows OS, Windows malwares do not affect Linux and viruses are very less for linux in comparison with Windows.

Operating systems usually come **pre-loaded** on any computer you buy. Most people use the operating system that comes with their computer, but it is possible to upgrade or even change operating systems. The three most common operating systems for personal computers are **Linux**, **Mac OS X**, and **Microsoft**

Mac OS is a line of operating systems created by Apple. It comes preloaded on all new Macintosh computers, or Macs. All of the recent versions are known as OS X. Mac OS X users account for less than 10% of global operating systems—much lower than the percentage of Windows users (more than 80%). One reason for this is that Apple computers tend to be more expensive. However, many people do prefer the look and feel of Mac OS X over Windows.



KWL

Complete the What I learned column in the KWL chart.



What is an Operating System?

Why are there different types of Operating Systems?

What is the Operating System that is running on your/institute computer?



To know more about this topic, explore this:

<https://www.youtube.com/watch?v=5AjReRMoG3Y>

https://www.webopedia.com/TERM/O/operating_syste

4. Exploring Windows Operating System



At the end of this lesson, you shall be able to:

- identify the key differences between Windows 7 and Windows 8 OS
- identify the features of Windows 10
- explore Windows 10.



Exploring Windows Operating System: In order to be a self-learner, one needs these 5 simple qualities – openness to learn, bravery to try again, curiosity about trying something new, patience, boldly seeking help from others.

Well then, this session will not only help you understand about self-learning, but will also make you a champion self-learner. It will also teach you some very interesting things about Operating Systems and Windows 10.



What I already **K**now

What I **W**ant to find out

What I **L**earned





1. This activity will help you get started on your journey as a self-learner. You have 3 tasks to complete the journey.

a. Understand the key differences between Windows 7 OS and Windows 8 OS.

Why learn this: The Windows Operating System has evolved over the last 30 years and understanding Windows 10, which is the latest version becomes easier if you have a good idea about Windows 7 and Windows 8. Also, many computers still have Windows 7 or Windows 8 OS and learning this makes you smarter because you can use any version of Windows after learning this!

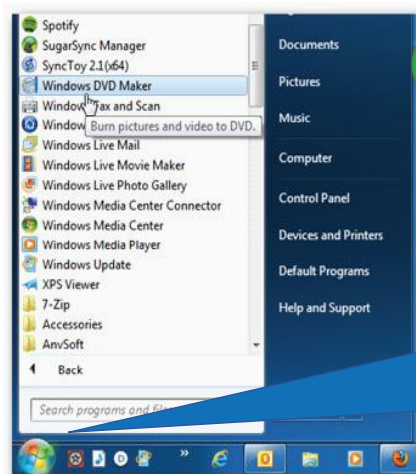
Start the task: To help you kick start your journey, we have already noted down some key differences between Windows 7 OS and Windows 8 OS. Read this and then find out more differences between the two Operating Systems.

The main differences

Windows 7 was (and perhaps still is) the easiest version of Windows! It is built for laptops and desktops. It has a taskbar, which makes the navigation on screen very easy.

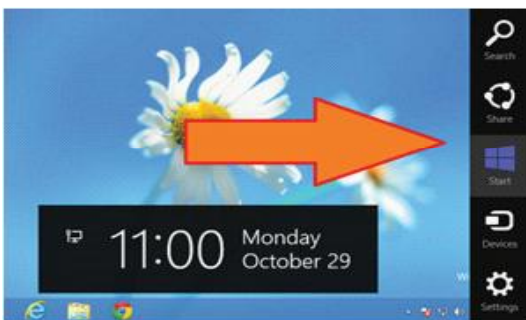


Clicking on the windows icon, will open up the Start Menu that opens up all the other Windows programmes. This grey bar is the taskbar. A user can pin their most frequently used programmes, here.



The search is a new feature in Windows 7. Type a search term (video player, music player) in the marked area, and you will get a list of results.

Windows 8 looks quite different from Windows 7. This is because it is designed to also work with touchscreen computers and tablets. When you log into Windows 8, the first screen you see is the new 'Start Screen' also known as 'Metro'. It still has the familiar 'Desktop' as well.



In Windows 8, instead of icons, the new Start Screen has 'Tiles'. You click these to open your 'Apps' (short for Applications). If you can not find a particular tile, do a right mouse click in the space at the bottom of the screen and click All Apps. Additional apps can be downloaded from the Windows Store in Windows 8.

Challenge for Self-Learning: Windows 8 does not have a Start Menu. Then how do you think one can start or shut down the computer?

b. Explore Windows 10 Operating System

Why learn this: The Windows 10 Operating System is the latest OS and it is compatible on tablets, laptops, mobiles and computer. The OS is also App friendly, and a user can now use mobile apps such as WhatsApp on the computer too, thanks to Windows 10 OS.

Start the task: To help you kickstart your journey, we have already noted down some key features of Windows 10 OS. Read this and then find out more about this Operating System.



Welcome to the world of Windows 10 OS.

Microsoft released Windows 10 in July 2015 as a follow-up to Windows 8. It is built to support touch and keypad devices.

Windows 10 OS has the same look and feel on a mobile device as well as a laptop or desktop.

Windows 10's integrated search feature allows users to search all local locations, as well as the web simultaneously!

Microsoft Edge debuted with Windows 10 and replaced Internet Explorer as the default web browser.

The minimum Windows 10 mobile hardware requirements for a smartphone are 1 GB RAM, 8 GB flash storage, 32 bits of colour per pixel and 720p screen resolution.

The start menu that is common in Windows 7 and 8, is present in 10. Additionally, it has a bunch of tiles that show news from the internet, different apps, weather, etc., as tiles which can be touched to open.

Challenge for Self-Learning: Windows 10 has a special feature called TILES. What are the benefits of having this feature? See the image above for clues and answer the question, by learning more about TILES on your own.



Complete the What I learned column in the KWL chart.



What are the major differences between Windows 7 & Windows 8 Operating Systems?

Which of the 3 tasks did you enjoy the most? Why?

How can learning on your own benefit you as a student?



Explore these apps on your own to learn English and Typing.

<http://www.wordhippo.com> (free app on Google playstore that can help you build your vocabulary)

<http://www.rapidtyping.com> (free app that helps learn typing in a fast and fun manner)

<http://www.microsoft.com/en-in/p/learnenglish-grammar/9wzdnrcfhwpx>

(free app to help you learn new words in English)