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Getting Started

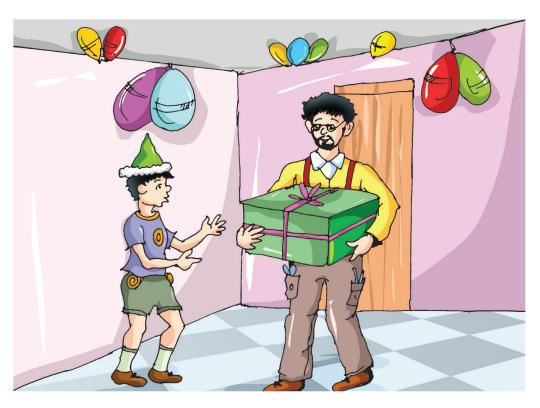
Learning Objectives:

After the completion of this chapter learners will be able to:

- identify computer and its parts,
- learn how to open and shut down a computer,
- appreciate the uses of computer.

Today is Dobo's birthday and he is feeling lonely as most of his friends are out on vacations.

Dobo's father gave him a birthday gift. Dobo is very happy to see such a huge box wrapped in beautiful gift paper.

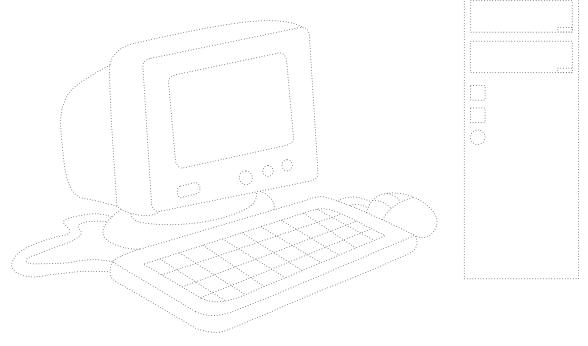


He quickly opened the gift to find what is inside the box.





Join the dots below to find out what Dobo's father gifted him.



Can you name the gift? If you guessed it correctly, write the name in the space provided:

Dobo's father gifted him a _____

Dad: Dobo, do you know what is a computer?

A computer is an electronic machine which takes a question, processes it and gives us a meaningful answer.

ACTIVITY:



Dobo wondered what else a computer can do. Help him find out some other uses of computer by listing them in the space provided (on the next page) using the words given in the help box.

games movies	songs	information	draw
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. A computer can be used to play

- 2. We can listen to _____ on computer.
- 3. We can search for _____ on computer.
- 4. We can watch _____ on computer.
- 5. We can also _____ pictures on computer.

Dobo was excited to get computer as a gift, though he was a bit confused. (Seeing him confused his dad said)



Dad: Dobo, you seem confused. Are you not excited to receive computer as a gift?

Dobo: Dad, I am excited, but I don't know much about its various parts.

Dad: Oh Dear! your friend computer is just like you. As you have different body parts to do different work, similarly, **computer also has different parts.**



PARTS OF COMPUTER

KEYBOARD

Dad: Dobo! which body part helps you to write, hold things or to take food to your mouth?

Dobo: Dad, I use my ______ to write, hold things and to place food in my mouth.

Dad: Similarly, computer has a KEYBOARD.



Keyboard is used to:-

- type numbers and letters.
- give instructions and commands to the computer.

MONITOR

This screen is called a MONITOR.





Name the device that resembles the computer monitor. (clue: you usually find this device in your home) _____

A monitor has following features:-

- It displays whatever we type.
- ◆ It has an On/Off button.
- It is also known as Visual Display Unit (VDU).
- A Monitor looks like a TV Screen.

Dad: Dobo, call your classmates for the birthday party.

Dobo: Dad, I don't remember their phone numbers and I don't have my phone book with me.



ACTIVITY



Read the questions given below and put a tick mark at the option (answer) which you feel is correct.

◆ Do you remember the names of all the students of your school? Yes / No

Can you recall phone number of all the students of your class?
Yes / No

◆ Do you remember the multiplication tables till 100?
Yes / No

Well, we cannot remember the above mentioned things, but a computer can remember all the above.

Dad: Dobo, which part of your body helps you to remember everything?

Dobo: I remember everything using my _____.

Dad: Do you know computer also has a brain.



CENTRAL PROCESSING UNIT (CPU)

CPU is the brain of a computer which helps it to remember everything.

The CPU helps a computer to:-

- process and perform various operations.
- store data and information.

A CPU has 2 buttons-

- On/Off button
- Restart button

Dobo: (while checking his computer) Dad, what is this tiny little thing with a long tail?

Dad: This is called a Mouse.

Dobo: A real mouse!!!!

Dad : No ! Dobo, it's not a real mouse. Come, I will tell you more about the computer mouse.

MOUSE

Dad: Dobo, as you use your finger to point at things, similarly, "a computer mouse also points on various objects on the computer screen". Therefore, it is also known as a **Pointing Device**.

Dobo: Dad, but mom told me not to point at others as it is a bad habit.

Dad: Yes child, it's true, but in order to work with speed, a pointing device is essential. We can select anything on the screen very easily by clicking using the mouse.







A mouse is:-

- easy to use
- increases speed and makes selection easier
- it reduces the task of remembering as well as typing the commands

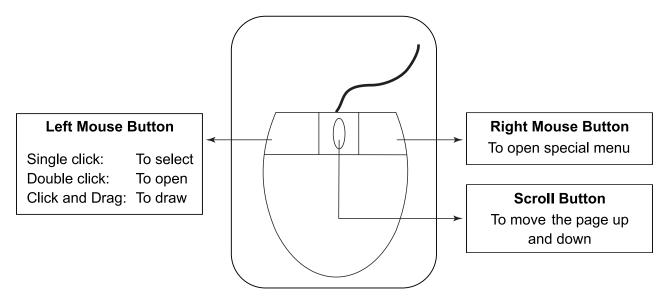
A mouse has three buttons:-

- Left Mouse Button
- Right Mouse Button
- Scroll Button

ACTIVITY:



Each button of mouse has its own function:-



In the picture given above :-

Colour the left mouse button RED.

Colour the right mouse button BLUE.

Colour the scrolling button YELLOW.

Colour the body of mouse PINK.

Colour the mouse pad GREY.





- 1. In the computer lab observe the CPU, Mouse, Monitor and Keyboard.
- 2. Count the number of computer systems available in your lab and write the number of CPU, Monitor, Keyboard and Mouse in the space provided.

My lab has _____ number of CPU and Monitors

We have _____ number of keyboards and mouse

3. Do you find all computers connected to power supply. Yes/ No

LET US PLAY:-

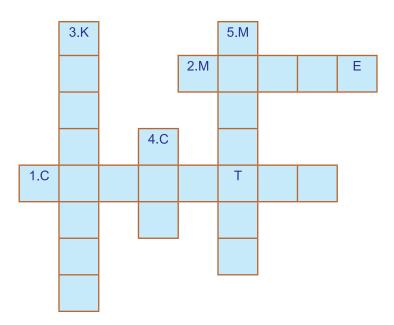
Complete the crossword puzzle using the hints given below :-

ACROSS

- 1. I am an electronic device.
- 2. I am a pointing device.

DOWN

- 3. You can type using me.
- 4. I am the brain of a computer.
- 5. I look like a TV Screen.







Teacher's Note: Art teacher may be asked to help children to make the headgear during Art period. Headgear may be like a crown or in any other shape bearing the name of any one part of computer neatly written on it and the image of that part pasted on it.

Wear your headgear with the name and image of any one part of computer clearly visible on it.



- As soon as your teacher says START, form groups with your classmates according to the parts of computer.
- Groups should be formed in such a way that each group should have a Monitor, a Mouse, a CPU and a Keyboard which together will form a computer.
- The moment your teacher says STOP (after 1 minute) all must stop and stand in your group. Identify the groups which have all the parts of computer. They are the winners.
- The activity can be repeated until all the students of the class are able to make groups within the time limit. Winners should be one who are able to form the group in least possible time.

Dobo: Dad, let's use the computer. I am very excited.

Dad: OK Dobo, watch carefully.

Switch on the UPS or the main power switch.

Press the on / off button on the CPU.

Press the on/off button on the monitor.

This process of switching on the computer is called **BOOTING.**





Do you know how to operate various electronic appliances? Find out the process of operating various electronic devices and complete the table given below. First one is done for you.

Washing Machine	Switch on the main power	Press the 'on' button on the machine
Microwave		Press the 'start' button on the front panel.
Juicer	Switch on the main power	
Television		Press the 'on' button

Do you find any step common in case of all the appliances? If yes, write the step in the space provided



Hands On

Switch on the computer in the computer lab.

The first screen that you will get on the computer will look like the picture given below. Try to read whatever is displayed on the screen.

This screen is known as the DESKTOP.

Write the steps you followed to switch on the computer in the space provided.

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TURNING OFF THE COMPUTER

Dobo was playing a game on his computer, when his mother called him. He was about to leave the room but his father stopped him.

Dad: Dobo, you should always shut down your computer after its use.



Dobo: Dad I don't know how to shut down the computer and what will happen if I leave it like this for few hours? I may come back after some time and use it again.

Dad: Turning off the computer properly is equally important to keep the computer and data safe else you will spoil it. Besides it is important to save electricity at all times.

Always follow the steps given below to turn off the computer.

Click on the START button.

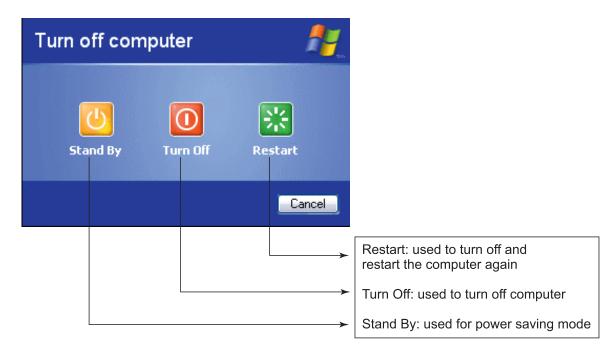


Click on TURN OFF computer.





A dialogue box will appear having three options:-



- Click on TURN OFF option.
- Switch off the UPS or the Power Source.

ACTIVITY:



Arrange the following sentences in correct sequence by numbering them from 1 to 3 to SWITCH ON and SHUT DOWN the computer.

SWITCH ON THE COMPUTER

- Press the on/off button on Monitor.
- Switch on the main power button.
- Press the on/off button on CPU.

SHUT DOWN THE COMPUTER

- Click on Turn Off computer.
- Switch off the UPS or Power Source.
- Click on START button.



ASSESSMENT ACTIVITY

QUIZ TIME: Guess who I am?

1.	I store all the data in a computer
	_ P _
2.	I display whatever you type.
	_ O T
3.	You can play games on me.
	C U
4.	You can give instructions to the computer using me.
	Y
5.	I am easy to use.
	M
6.	Process of switching on the computer.
	_ O O



Hands On

- 1. Switch on the computer and write the steps involed in the process in the space provided
- 2. Shut down the machine. Write the steps you followed to shut down the computer.



Fundamentals of Computers

Learning Objectives:

After the completion of this chapter learners will be able to:

- identify the different types of computers used in today's world,
- understand and appreciate the importance and role of computers,
- learn about the features and uses of different types of computers.

INTRODUCTION



You must have seen a computer, may be a desktop or a laptop, at home or in school. It is a part of our daily life and is a necessity.

Almost all people or families drive or own a vehicle depending upon the use or need. A person may have a scooter while other may have a bicycle or someone may own a small or a big car depending upon use and number of members in the family.

Similarly, there are different types of computers based on their use, size and performance.







Identify the type of computer(s) from the box given below that you may use for each of the following task, and write the serial number of the task in the appropriate box.

Desktop	Laptop
Smart Phone	Tablet

S.No.	Purpose
1.	Create a Greeting Card using Paint Brush
2.	Play your favorite game while travelling
3.	Click pictures during a vacation or Record a video
4.	Set an alarm
5.	Send a short text message
6.	Type and send an E-mail
7.	View a file stored on your desktop
8.	Watch a movie with your family by connecting to TV

Count, which box has got the maximum	number	of entries	and	write	the	name	of
computer type in the space provided below.							

______ type of computer is used the maximum number of times.



You may find that some tasks can be performed by all types of computers.

Dobo's mom is working on the desktop, while Dad is working on the laptop.

Dobo: Dad! Both laptop and desktop are computers. What is the difference between the two?

Dad: Oh Dear! Yes both are computers but they are different.



A **desktop** is a computer which is placed or kept on the **table/desk top**. Hence, it is named as desktop.

- It cannot be frequently shifted from one place to another.
- It needs an electrical connection.
- It can store large movies, songs, games, files etc.

A laptop is a computer which can be carried and placed on our laps.

- ◆ It is portable, that is it can be taken from one place to another.
- ◆ It is **lighter in weight and smaller in size** as compared to desktop.
- It has a battery which can be charged therefore it can work even without electrical connection.

We can do everything on a laptop that we do on a desktop.





Observe the laptop and a tablet. Write any two differences and the similarities (if any) between the two:

Differences:

Laptop	Tablet
Similarities:	

Dad: Do you know, that the smartphone we use is also a computer?

Dobo: Oh really! I thought it's a phone.

For what purposes do you think you can use the smartphone? Write your answer in the space provided.

ACTIVITY:



Roll Top: Enjoy the video: https://youtu.be/RxDjlmMHM5g

After watching the movie describe in your own words what do you like about the Roll top?



Dobo: Mom and Dad, I have a few questions for you, as you are almost, always using the computer. Join Dobo to find answer of these questions.

A	CT	IN	4 6 .	Y:
		IV	ш	



Interview your Mom and Dad and write your findings in space provided:

1. What does your father do? (Profession)
2. For what purpose does he use his computer?
2 Write down all the types of computers be uses
3. Write down all the types of computers he uses.
4. For how many hours does he use a computer?
5. What precautions does he take while working on the computer?



6. What does your mother do? (Profession)
7. For what purpose does she use her computer?
8. Write down all the types of computers she uses.
9. For how many hours does she use a computer?
10. What precautions does she take while working on a computer?



Now	tell me for outer.	,		•	'

USES OF COMPUTERS

Computers are used in various fields. They help us:

- Book tickets at airports and railway stations
- Make learning interesting
- Create presentations and movies
- Create animations
- Design magazines, books and newspapers
- Maintain records such as, keeping and maintaining record of books in the library
- Store phone numbers, pictures and videos
- Communicate with people around the globe
- Control rockets, satellites and other machines
- Diagnose diseases and perform surgeries
- Compose music
- Access bank accounts online
- Online shopping
- Calculate bills
- Type and save letters and documents
- Search information about anything on the Internet



RESEARCH ACTIVITY:



Try to find out the name of the first computer game.

The first computer game was _____

Dobo: Dad! I want to go out.

Dad: Where do you want to go?

Dobo: Dad, my friend visited some monuments with his father.

Dad: Ok, We will visit an ancient monument of Delhi today. Let me find out on the Internet which one to visit and how to reach there.

Let's visit Purana Quila today. It was built by the Afghan king Sher Shah Suri.

Dobo: Dad, how do you know?

Dad: I found it on the Internet.

Using the Internet, we can

find information about anything that we like.

But before we go out let me first withdraw money from the ATM.

Dobo: How does ATM give money?

Dad: ATM also has a computer. It helps us withdraw money from our bank account anytime, anywhere.





(At the Metro Station)

Dobo: What is Aunt doing on the computer?

Dad: She is issuing us a ticket.

Dobo: Dad, in the School library also, Ma'am uses the computer to issue us a book.

Computer is a wonderful machine.

Dad, I am feeling hungry.



Dobo: I want these chips and some juice.

Dad: Ok, let us get them billed.

Dobo: I wonder, a computer here also.

Dad: Yes, dear. A computer is used for billing at eating joints and shopping marts like the one near our house.



Dad and Dobo reach Purana Quila. They see the historical structure and the museum.





Dobo: I am tired now.

Dad: There is still something left to see.

Dobo: What is that?

Dad: The "Sound and Light Show" on the history of Delhi. It's a wonderful video or movie which I am sure you will enjoy.

Dobo: Did someone take videos in the past?

Dad: No.

Dobo: Then, how the story of Delhi is shown?

Dad: It is again the **computer which has helped create animated movies and sound effects.**

List the various places where Dobo saw the computer being used

-	Think and list the places where you have seen the computer being used.

Dobo: Which movie are you watching Dad?

Dad: Jurassic Park.

Dobo: My teacher told me that Dinosaurs are not alive and are not found anywhere in the world. I really wonder, how dinosaurs have been shown in this movie.

Dad: They are created using special effects and animation using computers.





Can you name few such similar movies or games where animation has been used?
Hands On
eer Activity – Let's play
 Speak any two 2-digit numbers and ask your friend to multiply them in a minute
2. Do the same calculation using calculator in computer
3. Who is faster? Friend / Computer
4. Who does it without making mistakes?
(teachers are requested to demonstrate the use of calculator available in computer and help children use the same during this activity)
ACTIVITY:
Try to recall the mobile numbers of any 10 friends/ relatives and write them in the space provided. Were you able to write the phone numbers without referring to phone book or taking any other help?

(Teacher to note the count of the mobile numbers recollected and explain the concept that computer can remember many things for many years.)





1. Write the task or the purpose for which the machines (shown below) are used

Machine	Picture	Task
Typewriter		
Music System		
Camera	Nikon	
Phone	Section 1	

Dad was watching Tobo and Dobo complete the above task.

Dad: All these machines can do only one type of task. Can you name the machine that can do all these tasks?

Tobo: Yes Dad! A computer can do all these tasks. Actually, a computer is a wonderful machine because

- 1. It works very fast.
- 2. It can work continuously without getting tired.
- 3. It never forgets. It can store a large amount of data for a long time.
- 4. It never makes mistakes.
- 5. It can do many types of tasks.



ASSESSMENT ACTIVITY

Compare yourself with a computer.

1. Write any three tasks in which you think computer is better than you.

2. Write three tasks in which you feel you are better than computer.

