

UPDATED

(An Interactive series on Computer Science)

1



New Edition

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Computer-1

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Preface

Computer

: Computers is a comprehensive series of eight books designed specifically for the needs and requirements of the students studying in classes 1-8. This series perfectly complies with the NCERT syllabus criteria and the National Curriculum Framework's vision. In keeping with NEP 2020's guidelines, the series adopts an interactive approach to make it possible for the learners to enjoy computers. This book includes enough questions in accordance with the NEP criteria. The fundamental principles of NEP which are recognizing, identifying and fostering the unique capabilities of each student, respect for diversity, and consideration for the local context in all topics, are always kept in mind while framing the book.

The topics are introduced in a way that children experience and learn through exploration.

Child-friendly language and contextual images have been incorporated throughout the series to make the material more understandable for young readers. This allows them to connect what they read and relate it to the views, ideas, and experiences they encounter every day.

Salient Features of the series:

Learning Outcomes : It guides both the teacher and the students towards the correct direction of efficient learning. It establishes the path of learning for efficient and superior learning results.

Warm Up : Children can connect their prior knowledge to the chapter's topic through simple yet engaging activities.

Teacher's note : An outline of guidelines for teachers to follow in the classroom in order to make lessons interactive and discussion-based.

Let me answer : Questions related to the topic which are essential for checking pupil understanding and keeping them engaged with the task at hand.

Do You know : An interesting piece of information related to the topic.

Remember It : Additional information about the topic to encourage children to wonder about various surroundings.

Kids' IQ : These questions have been included to reinforce learners to think, analyse and apply.

Up skill your Intelligence : Ample exercises with a range of questions to support learning.

Critical Thinking : Questions which allow the learners to think clearly and rationally.

Team Work : It enables the students to collaborate with others.

The content is structured and well graded. Sincere efforts have been made to prevent any inconsistencies and make this series a perfect complement to the students' education. Any worthwhile recommendations for the improvement of the series are always welcome and greatly appreciated.

Author

FOCUS AREAS

1 Computer – A Smart Machine

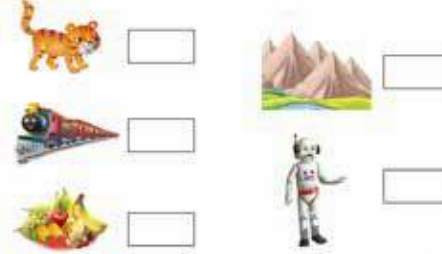
Learning Outcomes

At the end of this lesson, students will be able to :

- Recognize different types of machines.
- Comprehend the various uses of machines.
- Know about the different varieties of computers.

Warm-Up

Colour the box 'green' if the object is natural and 'red' if the object is man-made:



Teacher's Note: Apprise the students about the difference between natural and man-made things.

Learning Outcomes

It shows the right path of learning to the teacher as well as students. It establishes the direction of learning for efficient and superior learning results.

Warm-Up

Children can connect their prior knowledge to the chapter's topic through simple yet engaging activities.

2 Utilization of a Computer

Learning Outcomes

At the end of this lesson, the students will be able to :

- Comprehend how computers are used in all aspects of life.
- Discover how a computer works.
- Identify the use of computers to do a task more quickly.

Warm-Up

Match the pictures with the names given in the list:



Teacher's Note: An outline of guidelines for teachers to follow in the classroom in order to make lessons interactive and discussion-based.

Teacher's Note:

An outline of guidelines for teachers to follow in the classroom in order to make lessons interactive and discussion-based.

Backspace Key

This key helps to erase the incorrect character. Use arrow keys to bring the cursor towards the right side of the wrongly typed character and then press this key to erase the mistake.



Enter Key

The keyboard has two enter keys which are used to move the cursor to the next line.



Remember It! A standard keyboard is called a QWERTY keyboard.

Kids' IQ

Look at the top line of alphabet keys and write as many words as you can.

Ans. _____

Let's Recall

- A normal keyboard has 104 keys.
- Arrow keys are also called Cursor control keys.
- The backspace key erases mistakes.
- Cursor shows where you can start typing.
- The Caps Lock key is used to type capital letters.

Remember It

Additional information about the topic to encourage children to wonder about various surroundings.

Let's Recall

It aids in providing a brief summary of the entire chapter.

Kids' IQ

These questions have been included to reinforce learners to think, analyse and apply.

Functioning with the use of Machines



Using microwave to heat the food.

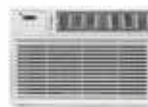


Saumya is sewing clothes using a sewing machine.

Machinery of Many Types

Now, let's learn about different varieties of machines. You can find these machines all around.

- Electricity is used by some machines. They are described as Electrical or Electronic machines.



Air Conditioner



Fridge

Kids' IQ

Who do you think will finish the work faster in the above pictures of Anrita and Saumya?

Ans. _____

OF NEP 2020

Do You Know

An interesting piece of information related to the topic.

Critical Thinking

Questions which allow the learners to think clearly and rationally.

Let me Answer

Questions related to the topic which are essential for checking pupil understanding and keeping them engaged with the task at hand.

Team Work

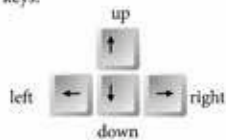
It enables the students to collaborate with others.

Upskill Your Intelligence

Ample exercises with a range of questions to support learning.

Arrow Keys

- The function of arrow keys is to move the cursor in different directions. These keys are called Cursor control keys.
- A keyboard has four arrow keys:
 - Up arrow key
 - Down arrow key
 - Left arrow key
 - Right arrow key



Special Keys

The keyboard has some special keys. Let's learn about some of them.

Caps Lock Key

To type capital characters, we use the Caps Lock key. The caps lock light will turn on when you press the caps lock key once. To turn it off, press it again.



Do You Know?

On your keyboard, the longest word that you can type using only the top row is typewriter.

Let's find the answer:
Which key's light turns on when we press it?

Spacebar Key

The spacebar key is the longest key on the keyboard. It is used to give space between words.



- Data stored in pen drive can be carried to another place. ☐
- You can not store data in a hard disk. ☐

C. Match the following:

These are used in mobile phones, laptops, cameras, etc.

The data is stored inside the computer here.

It can be taken easily anywhere.

D. Tick the correct answers:

- Data can be words or ☐ a. Files ☐ b. Folders ☐ c. Pictures
- You keep your toys in the ☐ a. Refrigerator ☐ b. Cupboard ☐ c. Shockerack
- Computer works on the ☐ a. Data ☐ b. Files ☐ c. Books
- The hard disk is kept inside the ☐ a. Laptop ☐ b. CPU ☐ c. PCU
- Storage unit of a computer's memory is called a ☐ a. Byte ☐ b. Bite ☐ c. Bit



Critical Thinking

A. Write the missing letters:

- ... a ... a
- ... o ... u ... t

- ... e ... o ... y
- ... i ... o ... a ... i ...
- ... e ... i ...

B. I am a storage place or a device, guess my name.

- I am an integral part of the computer software. _____
- In school, people keep many books in my room. _____
- You keep your books inside me. _____
- While coming to school, you put your notebooks in me. _____



Team Work

A. Take your teacher's help to play a memory game.

Divide the class into 4-5 groups. Ten unique items can be placed in a tray by the leader. Cover the tray with a cloth. The teacher will show the items in the tray for 30 seconds to the first group. Students in the first group are required to write down all the names they can recall in a minute. The one who remembers the most items is the winner!



B. Take help and collect pictures of storage devices. Make a collage in an A3 size chart paper.

Kids' IQ

Choose the shapes from the shapes tool and draw a Car in Tux Paint. Mention the shapes used.

Ans: _____

Let's Recall

- Tux Paint is a free drawing program with fun sound effects.
- You are free to choose any shape and size of the eraser.
- To reverse one step, simply click the Undo button.
- The saved drawings in Tux Paint appear as thumbnails.



Upskill Your Intelligence

A. Fill in the blanks.

- You can delete a drawing by clicking on the _____ tool.
- Tux Paint is a _____ drawing program.
- To start a new drawing, click on the _____ tool.
- The _____ tool is selected to draw and fill colour.
- _____ button is used to reverse one step.

B. Write 'T' for True statements and 'F' for False statements.

- Different sizes of brushes are there. ☐
- The information area is where you can draw. ☐
- There is only one size of eraser available. ☐

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Computer – A Smart Machine



Learning Outcomes

At the end of this lesson, students will be able to :

- ♦ Recognize different types of machines.
- ♦ Comprehend the various uses of machines.
- ♦ Know about the different varieties of computers.



Warm-Up

Colour the box 'green' if the object is natural and 'red' if the object is man-made:













Teacher's Note

- ♦ Apprise the students about the difference between natural and man-made things.



Hi! I am Peter. Let's go on a journey of machines.



What is a Machine?

A machine is a man-made thing which helps us to :



The following images demonstrate how machines assist us in performing our tasks more quickly :

Functioning without the use of Machines



Cutting vegetables
with knife



Amrita is cooling
herself with a paper fan



Let's fine the Answer

What does your mother use to chop the vegetables?

Functioning with the use of Machines



Using microwave to
heat the food



Saumya is sewing clothes
using a sewing machine

Machinery of Many Types

Now, let's learn about different varieties of machines. You can find these machines all around.

- Electricity is used by some machines. They are described as Electrical or Electronic machines.



Air Conditioner



Fridge



Kids' IQ

Who do you think will finish the work faster in the above pictures of Amrita and Saumya?

Ans.

- Some machines can be operated with our hands or feet. They are called Manual Machines.



Hand Juicer



A Rickshaw



Let me Answer

Name some more electronic machines.

- Some machines work with fuel, like petrol, diesel, CNG etc.



Bike



Bus



Characteristics of a Computer

Here are some of the characteristics of a computer :

I never forget the instructions.

I never get exhausted.

I can store large amount of data.



I function very fast.

I make work simple and easy.

I can do multiple things at a time.



Now, lets learn about the different varieties of computers.



Varieties of Computers

Laptop

- A Laptop is compact in size and light weight.
- It can be kept and taken anywhere.
- It works on batteries.



Desktop

- A Desktop is big in size and heavier than a laptop.
- It is difficult to carry.
- It needs electricity to work.



Tablet

- A Tablet is smaller than a laptop.
- It can be held in the hand and has a touchscreen.



Do You Know?

The first modern computer was basically a giant calculator which could actually do 4 things : add, subtract, multiply and divide.

REMEMBER IT!



A Mobile Phone is also a type of computer.



Let's Recall

- Machines are created by humans.
- Our work is made easier by machines.
- Some machines work with fuel and electricity.
- A Laptop and a tablet can be taken anywhere easily.
- Desktop computer needs electricity to work.



Upskill Your Intelligence



A. Circle the pictures which are machines.



B. Tick the correct answer.

1. A saves our time.
☐ a. Machine ☐ b. Plant ☐ c. Pencil
2. A fridge is an example of
☐ a. Manual machine
☐ b. Electronic machine
☐ c. Fuel machine
3. A never forgets instructions.
☐ a. Humans ☐ b. Dog ☐ c. Computer
4. is difficult to carry.
☐ a. Laptop ☐ b. Desktop ☐ c. Tablet
5. Which of the following machines work with fuel?
☐ a. A rickshaw ☐ b. A fridge ☐ c. A car

C. Match the following.



Manual Machine



Fuel Machine



Electronic Machine

D. Write 'T' for True statements and 'F' for False statements.

1. A machine makes our work difficult.
2. A Laptop can be carried anywhere.
3. A computer gets exhausted easily.
4. A mobile is a type of computer.
5. A tablet is big in size.

☐
☐
☐
☐
☐

Critical Thinking

A. Who am I?

- I make work simple and easy. I can store a large amount of data.

.....



- I have a touchscreen and you can carry me anywhere.

.....



- I work on electricity and cool down your room temperature.

.....



B. Unjumble the jumbled words and find them in the grid given below.

AIESMCHN —

LNUMAA —

RTCMUPOE —

PLAPOT —

M	B	E	G	I	J	P	R	L
A	C	N	I	J	L	T	A	O
N	N	I	K	U	Q	P	B	T
U	Y	H	S	X	T	X	M	D
A	Z	C	B	O	T	L	R	T
L	V	A	P	O	S	W	S	O
C	O	M	P	U	T	E	R	E



Team Work

A. Collect and paste the pictures of any six machines. Write their names.

Utilization of a Computer



Learning Outcomes

At the end of this lesson, the students will be able to :

- ♦ Comprehend how computers are used in all aspects of life.
- ♦ Discover how a computer works.
- ♦ Identify the use of computers to do a task move quickly.



Warm-Up

Match the pictures with the names given in the list:



School



Temple



Hospital

Shopping
Complex



**Teacher's
Note**

- ❖ *Elucidate the students about what we do in different places.*

Hi! In the previous chapter you learned about various varieties of machines that make our work easier. Now, let's look at how computer can help us work more efficiently.



Machines assist us in doing a variety of activities. A computer is an electronic equipment which helps us to do variety of tasks. Let's have a look at how computers assist us in our daily life.



Applications of a Computer at Home

We can perform a variety of tasks with the help of a computer or a laptop. We can get our task done swiftly with the help of a computer.



Let me Answer

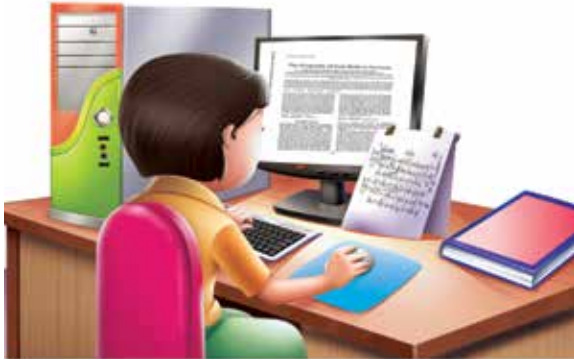
Is a computer an electronic equipment?



Solve sums



Play games



Type letters



Attend online classes



Access internet



Listen to songs



Applications of a Computer in School

Computers are operated commonly in schools. We use computers in school for the following purposes :



Children in a computer lab



Printing
Report Cards



Kids' IQ

Who will be able to complete the work faster; a teacher who is manually making a report card or a teacher who is typing it?

Ans.



Applications of a Computer in Office

We use computers in office for the following purposes :



Sending e-mails



Typing letters



Scheduling a meeting



Giving presentations



Do You Know?

The first mail was sent in 1971.



Let's find the Answer

For what purposes do we use computer in the banks?



Applications of a Computer in Banks

We deposit our money at a bank. The following tasks are handled by a computer at the bank :



Track of a customer's account information

REMEMBER IT!



ATM- An automated teller machine



Withdrawing money

Other Locations



At Hospitals

Keeping track of the patients names, addresses and phone numbers.



At Shops/Malls/Restaurants

Making bills and keeping track of things.



In a Library

Reserving information of books & students.



At Airport and Railway Stations

Making a list of the travellers names and phone numbers.



Let's Recall

- A computer is a piece of electronic equipment that works faster.
- We use computers in schools for teaching, printing report cards and in the computer labs.
- In a bank, we use computers to keep track of the customer's account information.
- Computers are used in libraries for recording information of books and students.



A. Tick (✓) the correct answer.

1. assist us in doing a variety of activities.
☐ a. Shop ☐ b. Food
☐ c. Machines ☐ c. Library
2. A computer at home is used for
☐ a. Attending online classes
☐ b. Keeping records of patients
☐ c. Tracking traveller's information
☐ d. Reserving records of books and students
3. Computers are used in many
☐ a. Food ☐ b. Locations
☐ c. Roads ☐ d. Tables
4. A computer is used in for scheduling a meeting.
☐ a. Library ☐ b. Banks
☐ c. Office ☐ d. Shops
5. A computer is an equipment.
☐ a. Manual ☐ b. Electronic
☐ c. Handy ☐ d. Light

B. Fill in the blanks.

Games Letters Customer's Songs Daily

1. We can print on a computer.
2. can be played on a computer.
3. We can listen to on a computer.

4. Computers assist us in our life.
5. In a bank, we use computers to track account information.

C. From the following tasks, tick the ones which a computer can do.



1. Make food ☐



2. Run ☐



3. Calculate ☐



4. Play songs ☐



5. Wash clothes ☐



6. Type letters ☐

D. Write 'T' for True and 'F' for False statements.

1. You can't listen songs on a computer. ☐
2. You can type letters on a computer. ☐
3. Computers are used to cook food. ☐
4. We can perform multiple tasks with the computer. ☐
5. A computer is a piece of electronic equipment. ☐



Critical Thinking

A. Look at the pictures and write down the activity being done.



B. Give one word answer. Write the answer in the given box.

1. A place where you use computers to watch movies.
2. What do we solve with the help of a computer?
3. A place where computer stores the names and phone numbers of all the patients.
4. What does a teacher use to take an online class?
5. A place where a computer is used for making customer's bill.



Team Work

A. In the space provided below, paste photographs of everyday things you can accomplish with a computer.



B. List the locations in your school where computers are used.

.....

.....

.....

.....

.....

.....



Components of a Computer



Learning Outcomes

At the end of this lesson the students will be able to :

- ♦ Know the various components of a computer.
- ♦ Recognise the functions of various computer components.
- ♦ Identify the parts of a computer that work.



Warm-Up

Write the body parts of a dog:



Paw

Eyes

Whiskers

Ear

Tail



Teacher's Note

- ♦ Apprise the students that different body parts are used for different purposes.



Hello friends! In the last chapter, we learned about the different applications of computers in our daily lives. Now let's look at the various components of a computer.

We are all aware that the human body is made up of several parts. Each part has a job to do. For Instance, we speak using our tongue, see using our eyes, shake hands using our hands. Similarly, the computer also has different parts. Each part does its own work. For the computer to function effectively, all the components are required.



Let me Answer

How many components of a computer are there?



The components of a computer enable it to perform various tasks such as listening to music, watching movies, playing video games, printing documents, etc.

So, let's have a look at the key components of the computer.



Monitor

- A Monitor has the appearance of a television.
- We can see what we type on the monitor.
- A monitor is also called VDU (Visual Display Unit).



Do You Know?

Christopher Latham Sholes was an American who invented the Qwerty Keyboard



Keyboard

- We use keyboard to type letters and numbers.
- It has many buttons on it which are called keys.



- We can type any letter or number by pressing the keys on the keyboard.
- A keyboard can be wired or wireless and can be used with any computer.



Mouse

- This is a computer mouse and is different from the house-mouse.
- It has two buttons and a scroll wheel. This wheel is in the centre.
- It is used to point at things and also used to draw pictures on the monitor.



REMEMBER IT!



The computer mouse was invented in 1963.

- We can use a wired or a wireless mouse with any computer.



CPU

- CPU stands for **Central Processing Unit**.
- It is called the brain of the computer.
- It controls all the parts of a computer.
- The CPU is placed inside a box called the CPU box.



Printer

- A printer is used to print text and pictures on a paper. The printed work is called printout.
- It is fixed to the CPU box with a wire.
- A wireless printer can also be used.



Let's find the Answer

Which part of a computer controls all the other parts of a computer?



Speaker

- Speakers are used to listen to sounds and music.
- It can be wired or wireless.



Make two distinctions between the two mouse depicted in the illustrations below.



Ans. 1

2

Pen Drive

- A pen drive is also called as Flash Drive.
- We can store data in it.
- It is also used to transfer files between devices.
- It is easy to carry.



Let's Recall

- The monitor is also called VDU (Visual Display Unit).
- The keyboard has keys which help to type letters or numbers.
- A mouse helps to click, drag, and draw objects.
- A CPU is called the brain of a computer.
- A printer is used to print text, pictures and documents.
- A speaker is used to listen to sounds and music.



A. Tick the correct answer.

1. A monitor looks like a
☐ a. Machine ☐ b. Plant
☐ c. Pencil ☐ c. Pencil
2. VDU stand for
☐ a. Visual Display Union ☐ b. Visual Designing Unit
☐ c. Virtual Display Unit ☐ d. Visual Display Unit
3. Which of the following is called the Brain of the computer?
☐ a. Printer ☐ b. CPU
☐ c. Mouse ☐ d. Keyboard
4. Scroll wheel of the mouse is located in the
☐ a. centre ☐ b. left
☐ c. right ☐ d. below
5. A is used to listen to sounds and music.
☐ a. Printer ☐ b. Monitor
☐ c. Mouse ☐ d. Speaker

B. Fill in the blanks.

type mouse different flash keys

1. The computer has parts.
2. We can see what we on the monitor.
3. Keyboard has many buttons which are called as
4. is used to point a thing.
5. A pen drive is also called as drive.

C. Match the following.

Match the parts of the computer with the given pictures by writing correct letters in the boxes.

1. CPU box



2. Printer



3. Speaker



4. Mouse



5. Monitor



6. Keyboard



D. Write 'T' for True statements and 'F' for False statements.

1. A printer is used to store files.
2. A mouse is used to click, drag and draw.
3. A monitor is called a VDU.
4. CPU stands for Control Processing Unit.
5. A keyboard can be wired or wireless.

☐☐☐☐☐



Critical Thinking

A. Find out the parts of a computer from the grid given below. Take help of the hints mentioned.

O	P	E	N	D	R	I	V	E
P	R	O	T	I	N	O	M	P
L	I	Z	O	M	I	A	O	R
S	N	X	U	J	L	N	U	I
M	T	C	S	N	D	R	S	E
Y	O	N	E	B	S	Y	E	K
Z	U	A	Q	W	F	C	X	D
H	T	S	T	V	J	A	Y	A

Hints:

1. It is used to point at things.
2. We can store data in it.
3. The buttons on keyboard.
4. Printed work on a paper.
5. This looks like a television.

B. Who am I?

- I am also called Flash drive.

.....



- I help you to type.

.....



- I control all the parts of a computer.

.....



- I let you hear the sounds.

.....



- I am an animal but can't make a sound. You can move me all around and I follow your commands.

.....



Team Work

A. Count the number of monitors, CPUs, mouse, keyboards and printers in your school computer lab. Mention the number in the boxes given below.

1. Number of Monitors
2. Number of Mouse
3. Number of Printers
4. Number of CPUs
5. Number of Keyboards

Significance of Keys On a Keyboard



Learning Outcomes

At the end of this lesson, the students will be able to:

- ♦ Recognize the various types of keys on a keyboard.
- ♦ Learn how to use the different keys on a keyboard.
- ♦ Use the keyboard to enter different types of data.



Create as many words as you can with the letters given in the above picture

.....

.....

.....

.....



Ask the students:

- ♦ What do they use to write in their notebooks?
- ♦ What do their teachers use to write on the blackboard or whiteboard?



Hello friends! In the previous chapter, we learned about the keyboard. Now look at the many types of keys on a keyboard and learn about their functions.



Keyboard

You need a pencil to write in a notebook. In the same way, a keyboard is needed to write on the computer. It is used to type letters and numbers.

- A keyboard has several small buttons which are called keys.
- A normal keyboard has 104 keys.
- Words, sentences, and numbers are typed with these keys. The monitor displays what we type.



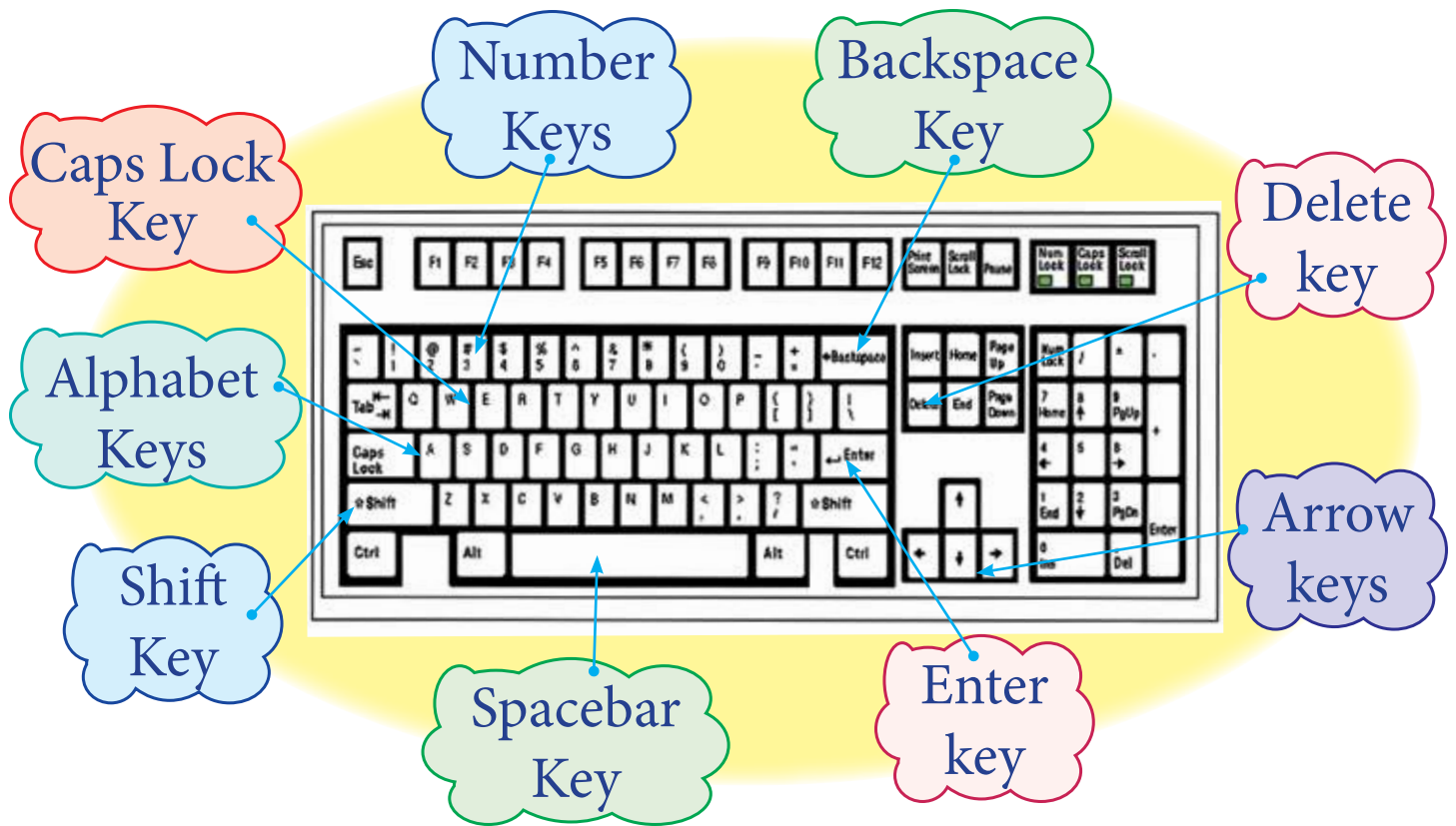
Let's find the Answer

What do we type with the keys on a keyboard?



Keys Of Various Kinds

There are various types of keys on every keyboard. Let's take a look at each of these keys one by one.



Alphabet Keys

- The alphabet keys have alphabets from A to Z labelled on them.
- There are 26 alphabet keys on a keyboard.



- They are used to type words and sentences.

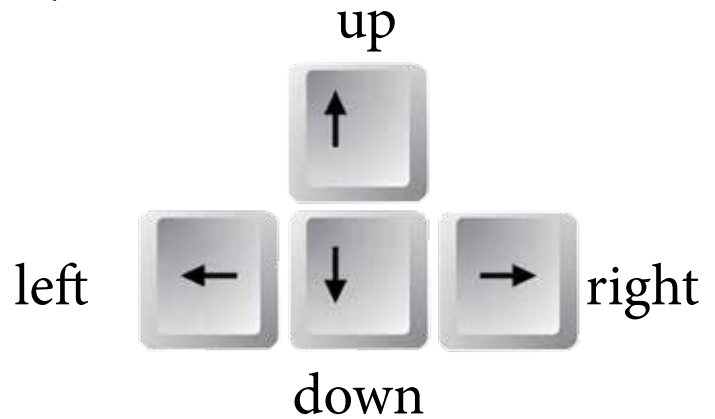
Number Keys

- The number keys have numbers from 0-9 labelled on them. They are called Numeric keys.



Arrow Keys

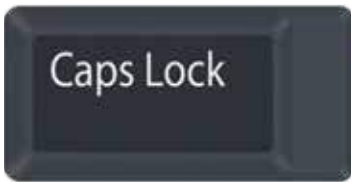
- The function of arrow keys is to move the cursor in different directions. These keys are called Cursor control keys.
- A keyboard has four arrow keys:
 - Up arrow key
 - Down arrow key
 - Left arrow key
 - Right arrow key



Special Keys

The keyboard has some special keys. Let's learn about some of them.

Caps Lock Key



To type capital characters, we use the Caps Lock key. The caps lock light will turn on when you press the caps lock key once. To turn it off, press it again.



Do You Know?

On your keyboard, the longest word that you can type using only the top row is typewriter.



Let's find the Answer

Which key's light turns on when we press it?

Spacebar Key

The spacebar key is the longest key on the keyboard. It is used to give space between words.



Backspace Key

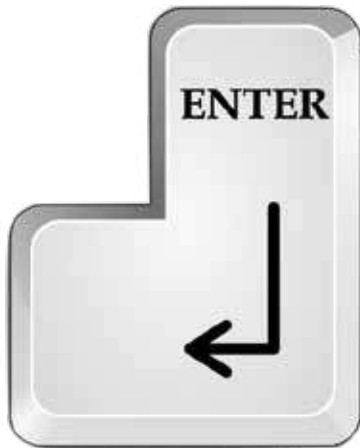
This key helps to erase the incorrect character. Use arrow keys to bring the cursor towards the right side of the wrongly typed character and then press this key to erase the mistake.



REMEMBER IT!



A standard keyboard is called a QWERTY keyboard.



Enter Key

The keyboard has two enter keys which are used to move the cursor to the next line.



Kids' IQ

Look at the top line of alphabet keys and write as many words as you can.

Ans.



Let's Recall

- A normal keyboard has 104 keys.
- Arrow keys are also called Cursor control keys.
- The backspace key erases mistakes.
- Cursor shows where you can start typing.
- The Caps Lock key is used to type capital letters

A. Fill in the blanks.

1. key helps us to type capital letters.
2. A normal keyboard has keys.
3. There are alphabet keys on a keyboard.
4. The longest key on the keyboard is called
5. key works like an eraser.

B. Match the following.

A

B

- | | |
|---------------------------------|-----|
| 1. Enter key | 26 |
| 2. Alphabet keys | Two |
| 3. Number of keys on a Keyboard | 104 |

C. Tick the correct answers.

1. The keys with numbers written on them are called keys.
☐ a. Enter ☐ b. Numeric ☐ c. Spacebar
2. A keyboard has arrows keys.
☐ a. 5 ☐ b. 6 ☐ c. 4
3. key is used to give space between words.
☐ a. Spacebar ☐ b. Delete ☐ c. Enter
4. Buttons on the keyboard are called
☐ a. Accessories ☐ b. Words ☐ c. Keys
5. To move the cursor to the next line you can use the key.
☐ a. Arrow ☐ b. Enter ☐ c. Numeric

D. Write 'T' for True statements and 'F' for False statements.

1. The Enter key is used to write numbers. ☐
2. The delete key erases one character to the right of the cursor. ☐
3. There are two delete keys. ☐
4. The monitor doesn't display anything. ☐
5. The function of arrow keys is to move the cursor in different directions. ☐



Critical Thinking

A. Circle the odd one out.

-    
-    
-    
-    

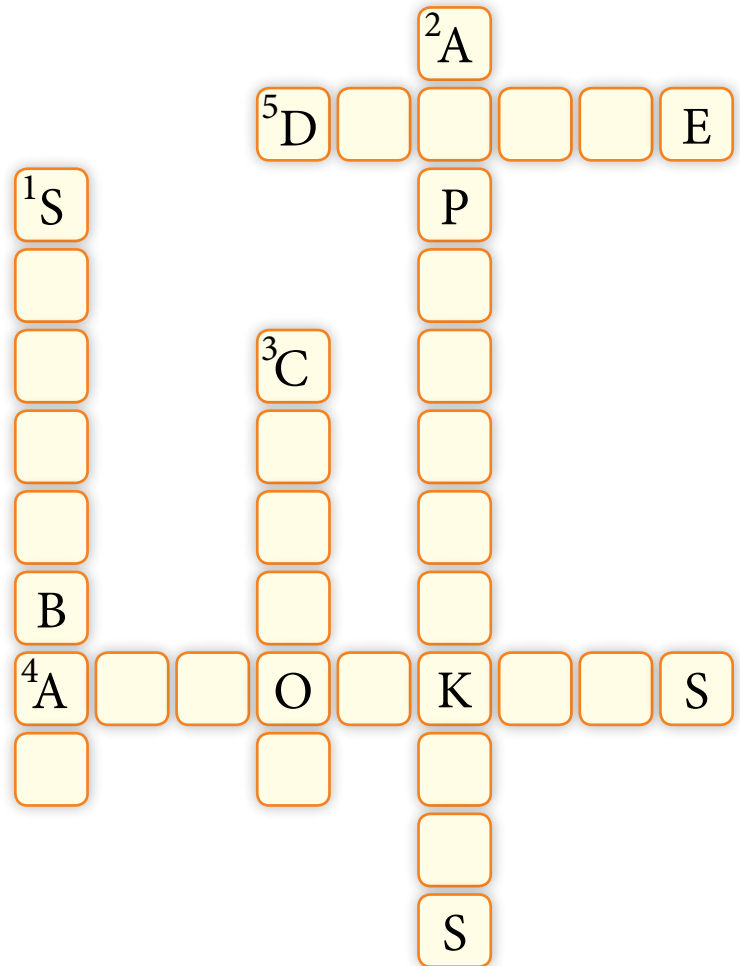
B. Solve this crossword with the help of given hints.

Down

1. I am the longest key in the keyboard.
2. You use these keys to type 'computer', 'hi', etc.
3. Arrow keys help to move me in different directions.

Across

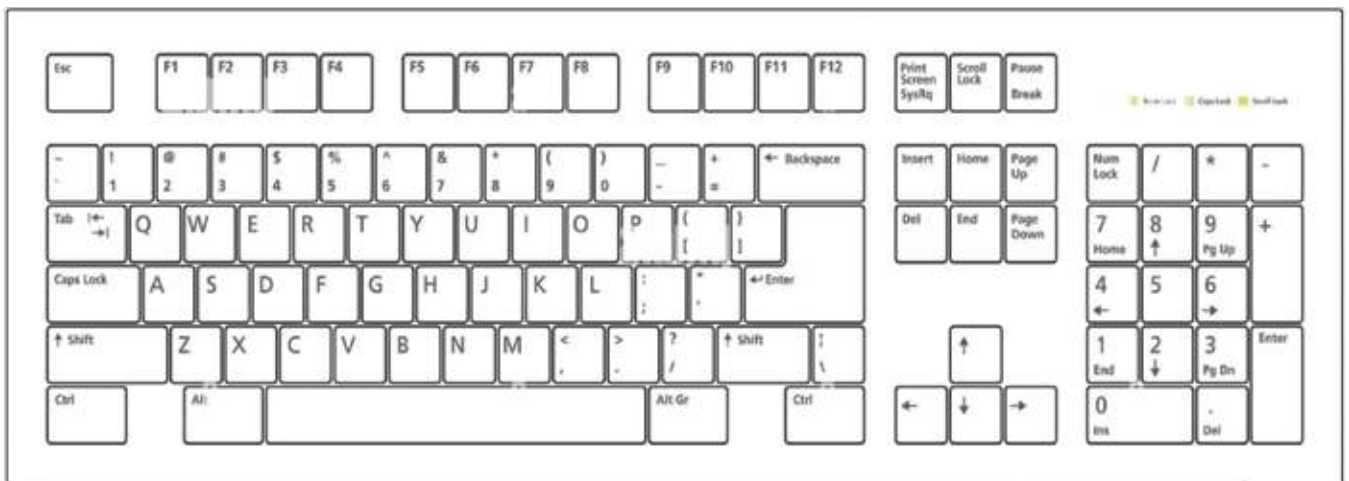
4. We are four together.
5. If you want to delete any character, you press me.



Team Work

A. Colour the keys.

1. Alphabet Keys - Yellow
2. Caps Lock Key - Blue
3. Number Keys - Red
4. Space Bar Key - Green



Operating a Mouse



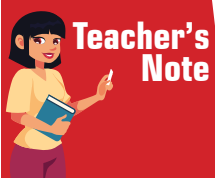
Learning Outcomes

At the end of this lesson, the students will be able to:

- ♦ Understand the various characteristics of a computer mouse.
- ♦ Recognize the different parts of a mouse.
- ♦ Know the functions of the mouse buttons .



The mouse wants to nibble the old newspapers, help it find the way .



Teacher's Note

- ♦ Apprise the students that there's a lot of difference between a computer mouse and a mouse.
- ♦ A mouse runs very fast and carries diseases but the computer mouse cannot run and does not carry diseases.



Hello friends! Let's learn about the crucial component of the computer which is a mouse.



Computer Mouse

The computer mouse is used to drag, draw pictures and select things on the monitor. It is attached to the CPU box with a wire.



Yes, you read that correctly. It is referred to as a mouse since it resembles an actual mouse.



The computer mouse has the following qualities:

- It is a small input device.
- It has buttons on it and a wheel in the centre.



Let me Answer

Are a computer mouse and mouse really the same?

Mouse Buttons

The computer mouse is used to drag, draw pictures and select things on the monitor. It is attached to the CPU box with a wire.





Various Parts of a Mouse

A computer mouse has two buttons and a scroll wheel. It is kept on a mouse pad and moves properly on it only.



Do You Know?

The computer mouse was invented by Douglas Engelbart and Bill English.



Right button

Scroll wheel

Left button



You should never keep the mouse upside down on the mouse pad.

REMEMBER IT!



The Mouse cursor is the pointer on the screen which the person using the computer can move using the computer mouse. 



Types of Mouse

There are various kinds of computer mouse:

- **Wired Mouse:** The mouse which is attached to the CPU BOX with a wire.
- **Wireless Mouse:** The mouse which doesn't have a wire and works on batteries.



Actions of a Mouse

You can use the mouse in different ways:

Click: It means to press and leave the mouse button quickly. You can click the mouse in three ways:



Left click: It selects an object present on the monitor.

Right click: It opens a shortcut menu.

Double click: It is used to select and open a program.

Drag: It means to press the left button and move the mouse while keeping the left button pressed.



Kids' IQ

Does a tablet have a mouse attached to it?

Ans.



Let's Recall

- The mouse is used to drag, draw and select things on a monitor.
- A mouse can be wired or wireless.
- Double click opens a program.
- Left click selects an object present on the monitor.
- A computer mouse has two buttons and a scroll wheel.



A. Tick the correct answers.

1. A mouse has a in the centre.
☐ a. Button ☐ b. Wire ☐ c. Wheel
2. click opens a shortcut menu.
☐ a. Double ☐ b. Right ☐ c. Single
3. A mouse has buttons.
☐ a. Two ☐ b. Three ☐ c. Four
4. A computer mouse diseases.
☐ a. Carries ☐ b. Transfers ☐ c. Doesn't carry
5. A mouse is used to
☐ a. Type letters ☐ b. Draw pictures ☐ c. Type numbers

B. Answer in one word.

1. The white arrow which moves on the monitor.
2. A small input device of a computer.
3. A mouse that works on batteries.
4. The thing on which the mouse is to be kept .

C. Write 'T' for True statements and 'F' for False statements.

1. A computer mouse has all the qualities of a mouse. ☐
2. A computer mouse has four buttons. ☐
3. A mouse moves on a mouse pad. ☐
4. A mouse can be wired or wireless. ☐
5. You can play games using a mouse. ☐

D. Match the following :

A

Mouse

Mouse actions

Pointer

Scroll

B

Arrow

Page Up

Draw

Click



Critical Thinking

A. Who am I?

1. I have two buttons and a wheel.
2. I am the small wheel on the mouse.

B. Unscramble the words :

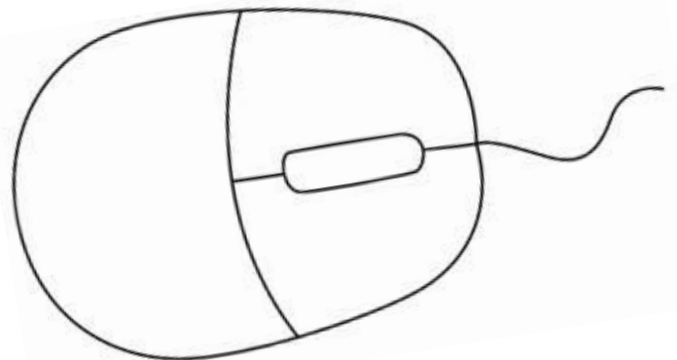
1. P T I N U -
2. E U M S O -
3. R O C S U R -
4. B D L U E O -



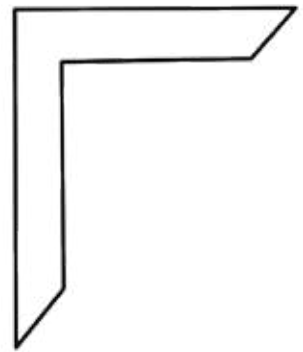
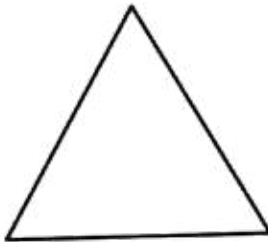
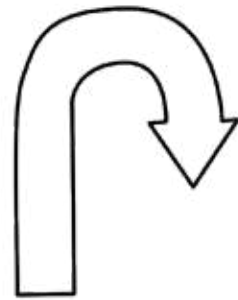
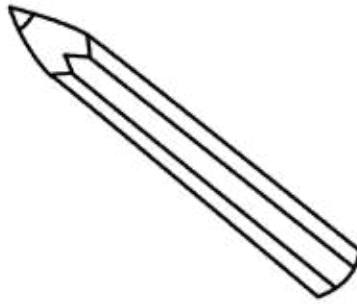
Team Work

A. Use crayons to fill the colour and name the buttons in the given picture.

.....
.....
.....



B. Find out the mouse pointer from the pictures and colour it.



C. Collect the information of the following :



.....

.....

.....

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.....

.....

Computer lab étiquettes



Learning Outcomes

At the end of this lesson, the students will be able to:

- ♦ Know the protocols to be followed in a computer lab.
- ♦ Learn what they should do in a computer lab.

Warm-Up

Connect the pictures to the correct word.



Good
manners



Bad
manners



- ♦ *Elucidate the students about good and bad manners. Further, tell them to always follow the good behaviour everytime.*



Hello friends! We have so far learned how to operate a computer. It's time to learn how to maintain your computer lab.

A computer is a smart man made machine. It can help us to do many things like play games, draw pictures, solve sums, listen to music and do many more things.

We must abide by the rules at school when using the computer lab.

Let's see what we should and shouldn't in a Computer Lab.



Do's (✓)

- Remove your shoes before you enter the Computer lab.
- Always wait in line to enter the computer lab.



- The computer lab is not a place to run.
- Touch the computer with clean hands only.
- Talk gently.
- Always listen to your teacher.

- Press the keys of the keyboard very gently.
- Keep your back straight while sitting. Ensure that your eyes are at the right distance from the computer screen.



REMEMBER IT!



Always save your work.

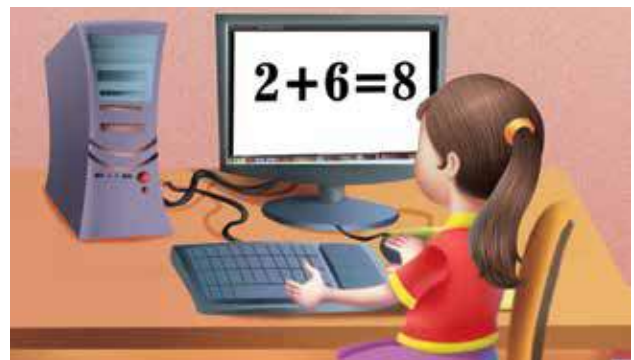
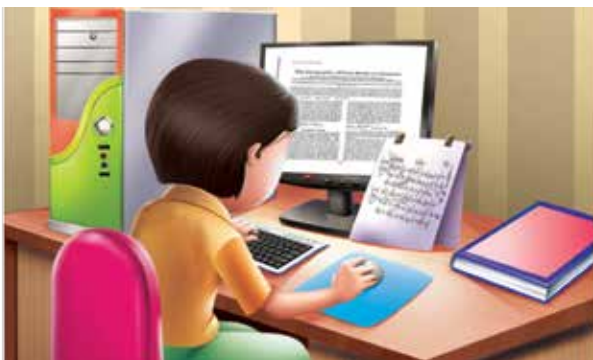


Don'ts (x)

- Do not throw litter in the Computer lab.
- Never touch the wires.
- Do not eat or drink anything in the computer lab.
- If there's a problem with your computer, take help from your teacher.
- Do not shout.



Kids' IQ



In the above pictures of Raman and Vinita, who do you think is sitting correctly?

Ans.



Let's Recall

- Remove your shoes before you enter the computer lab.
- Never touch the wires.
- Do not eat or drink in the lab.
- Press the keys on a keyboard gently.
- Always follow what your teacher tells you



Upskill Your Intelligence



A. What are the protocols to be followed in a computer lab?
Colour the box green  for Do's and red  for Don'ts.



B. Answer the following in Yes/No.

1. A computer is a smart machine.
2. We should talk loudly in a computer lab.
3. A Computer lab is a place where we can run.
4. We should always take the teacher's help in case there's any problem in the computer.

C. Write 'T' for True statements and 'F' for false statements.

1. We must listen to the teacher in the Computer Lab. ☐
2. We should throw litter in the Computer Lab. ☐
3. A computer lets us listen to songs. ☐
4. We should maintain proper distance between our eyes and the computer screen. ☐
5. Press the keys on the keyboard gently. ☐

D. Write four things you do in your school's computer lab.



.....
.....
.....
.....

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.....
.....
.....



Critical Thinking

A. Arrange the given words and find it in the given grid.

IRWES —

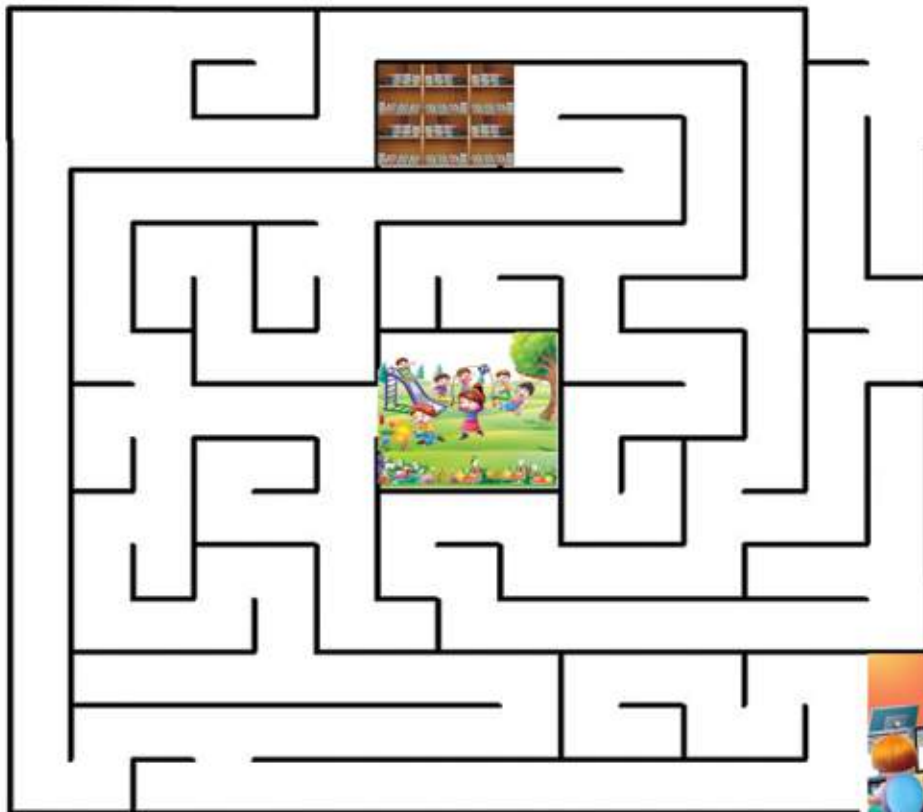
MORUPECT —

YSKE —

BLA —

X	K	E	Y	S	T	Q	P
Y	C	N	O	L	A	B	T
A	Z	W	I	R	E	S	S
C	O	M	P	U	T	E	R

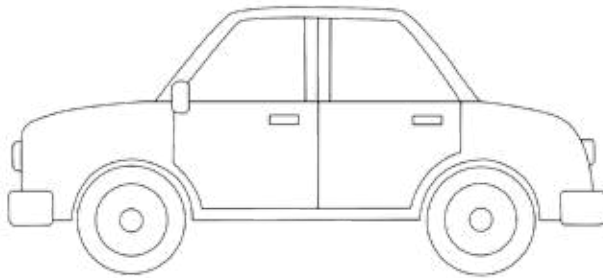
B. Sam is having his Computer period. He wants to reach the Computer Lab. Help him reach the Lab so that he can attend his Computer class.



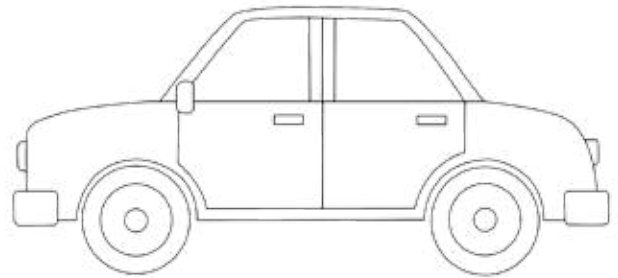


Team Work

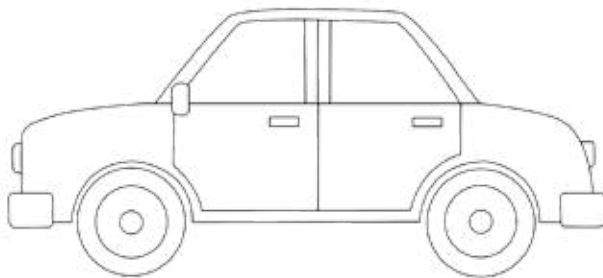
A. Colour the cars which show the rules to be followed in the Computer Lab.



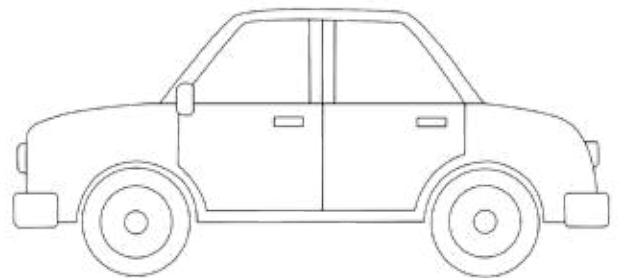
Maintain silence



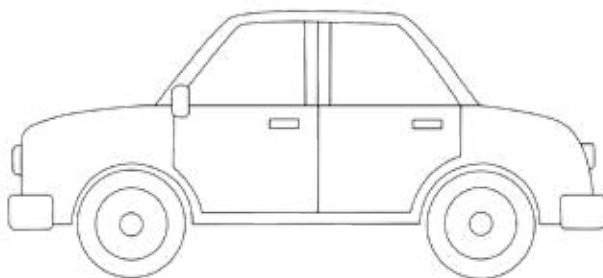
Play



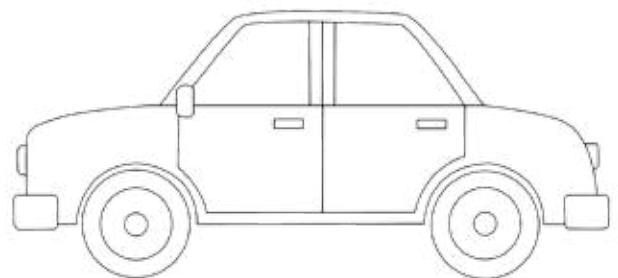
Maintain distance
from a computer



Remove shoes before
entering



Touch the wires



Do not listen to the
teacher

B. On a notepad, make a list of the rules to be followed in the Computer Lab. Ask your teacher to help you in saving the file.

Storage Devices



Learning Outcomes

At the end of this lesson, the students will be able to:

- ♦ Know about data and how a computer gets it.
- ♦ About different storage devices.

Warm-Up

Match the following objects with the things where they can be stored.



Teacher's Note

- ♦ Apprise students that storage is the space or a place for putting things for future use or for safekeeping.



Hello friends! We learned about the Computer lab etiquettes in the previous chapter. Now, let's get on the journey of learning about storage devices.



What is Data?

Data refers to all the names, images, numbers and even sound.



The teacher marks your attendance in her register. This is also data.



The grades and marks that you get for your test are also data. Your school has many record books of parents' information - that is also a data.



How is data obtained by a computer?

Only after receiving the data from you, the computer performs various tasks such as:

- when you type using the keyboard.
- when you use the mouse to click on something on the screen to select it.



When, for example, you want the computer to type a letter. You must type the alphabets from the keyboard. Only then, the computer will type it.



Where do you keep your belongings?

We require a location to keep or store the information or objects!



Let me Answer

How does a computer get data?

The important papers are kept in folders.



Folders are kept in a cabinet.



Vegetables, fruits, curd, milk and many other things are stored in a refrigerator.



The books are kept in the library in book shelves.



You keep your toys in a cupboard.





Where do computers keep their data?

How do you remember things?

It's because of your memory!

The computer also remembers everything because it has different storage devices where computer data is stored.



Let me Answer

Where do you keep your school bag?



Storage Devices.

A storage device is an integral part of the computer hardware which stores information or data to process the result. Without a storage device, a computer would not be able to function.

Hard Disk

- The data inside the computer is stored in a Hard Disk.
- The hard disk is kept inside the CPU Box.



Do You Know?

The first computer used punched cards to store data!



Pen Drive

- Data can be stored in Pen drives.
- These can be easily carried every where.

Data Card

- Data cards can be used to store data.
- These are used in mobile phones, laptops, cameras, etc.



REMEMBER IT!



A computer's memory storage unit is known as a "byte."



If you would have to remember the series of the following objects. How would you do it?

Car Bird Human Books Computer Water bottle Bag Pencil Teacher

Ans.
.....



Let's Recall

- Data refers to all the names , images, numbers and even sound.
- A storage device is a device used to store data or information.
- Data is stored inside the computer in a Hard Disk.
- Pen Drive is a small storage device and can be taken anywhere.
- The hard disk is kept inside the CPU Box.



Upskill Your Intelligence



A. Fill in the blanks.

1. can be taken anywhere.
2. Your mother stores the food in
3. Without a, a computer would not be able to run.
4. A storage device is a device used to store or
5. The data inside the computer is stored in a

B. Write 'T' for True statements and 'F' for False statements.

1. Only names form data.
2. Data cards are used in the refrigerators.
3. Clothes are kept in the refrigerator.

☐☐☐

4. Data stored in pen drive can be carried to another place. ☐
5. You can not store data in a hard disk. ☐

C. Match the following :

These are used in mobile phones, laptops, cameras, etc.

The data is stored inside the computer here.

It can be taken easily anywhere.



D. Tick the correct answers.

1. Data can be words or
☐ a. Files ☐ b. Folders ☐ c. Pictures
2. You keep your toys in the
☐ a. Refrigerator ☐ b. Cupboard ☐ Shoerack
3. Computer works on the given by you.
☐ a. Data ☐ b. Files ☐ c. Books
4. The hard disk is kept inside the Box.
☐ a. Laptop ☐ b. CPU ☐ c. PCU
5. Storage unit of a computer's memory is called a
☐ a. Byte ☐ b. Bite ☐ c. Bit



Critical Thinking

A. Write the missing letters:

1. a a
2. o u r

3. e o y
4. I o a i
5. e i

B. I am a storage place or a device, guess my name.

1. I am an integral part of the computer software.....
2. In school, people keep many books
in my room.
3. You keep your books inside me.
4. While coming to school, you put
your notebooks in me.



Team Work

A. Take your teacher's help to play a memory game.

Divide the class into 4-5 groups. Ten unique items can be placed in a tray by the leader. Cover the tray with a cloth. The teacher will show the items in the tray for 30 seconds to the first group. Students in the first group are required to write down all the names they can recall in a minute. The one who remembers the most items is the winner!



B. Take help and collect pictures of storage devices. Make a collage in an A3 size chart paper.

Introducing Tux Paint



Learning Outcomes

At the end of this lesson, students will be able to:

- ♦ Start the Tux Paint
- ♦ Know the parts of the Tux window
- ♦ Open a file
- ♦ Colour, save and open a drawing.
- ♦ Use Undo tool



Mention the activities following penguins are doing and colour them.



- ♦ Elucidate students that the penguin (Tux) is the cartoon mascot who assists students with utilising the program (Tux Paint) efficiently

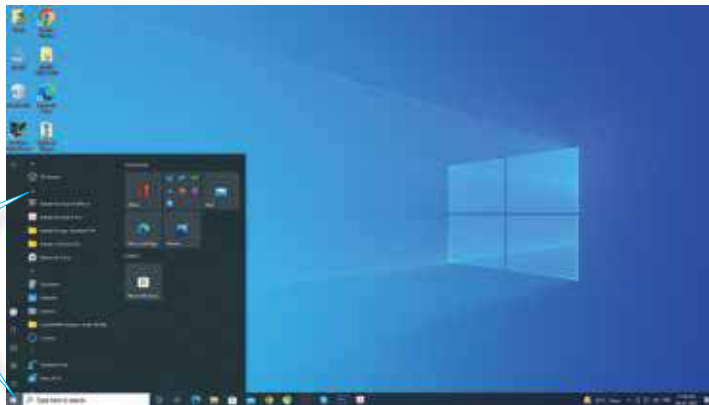


Hello friends! You already know how to draw on paper. But in this chapter, we will learn how to draw on a computer using fun sound effects. Let's go!



Starting Tux Paint

- **Step 1:** Go to Start.
- **Step 2:** Click on the little penguin (Tux).



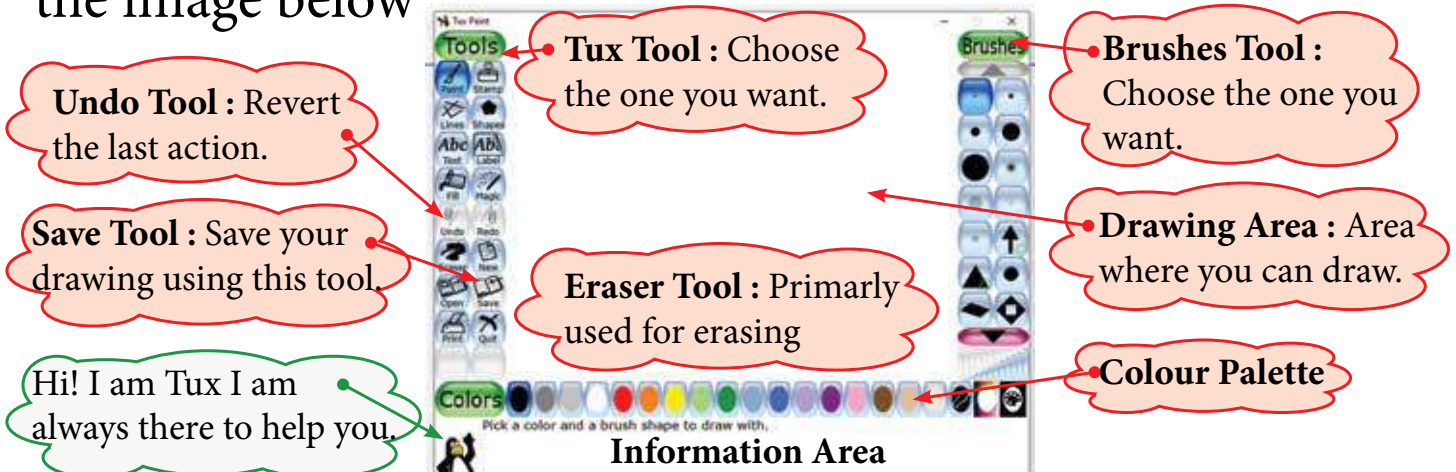
Let me Answer

- What is the logo of Tux Paint?
- Do you like that bird?



Components of the TUX Window

When we open the Tux Paint window, it appears as seen in the image below



Opening a New File

For your drawing, you are free to select any colour, image or background.

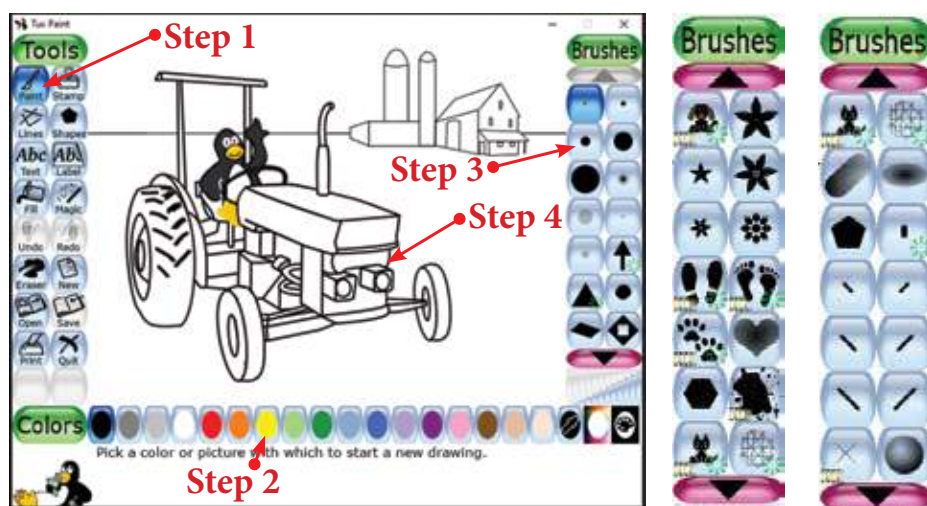


Colouring a picture

Let's begin adding colour to a picture.

- **Step 1** : Select the  paint tool.
- **Step 2** : Choose the colour you want.
- **Step 3** : Choose the size and type of the brushes.
- **Step 4** : Click and move the cursor over the area you wish to colour.

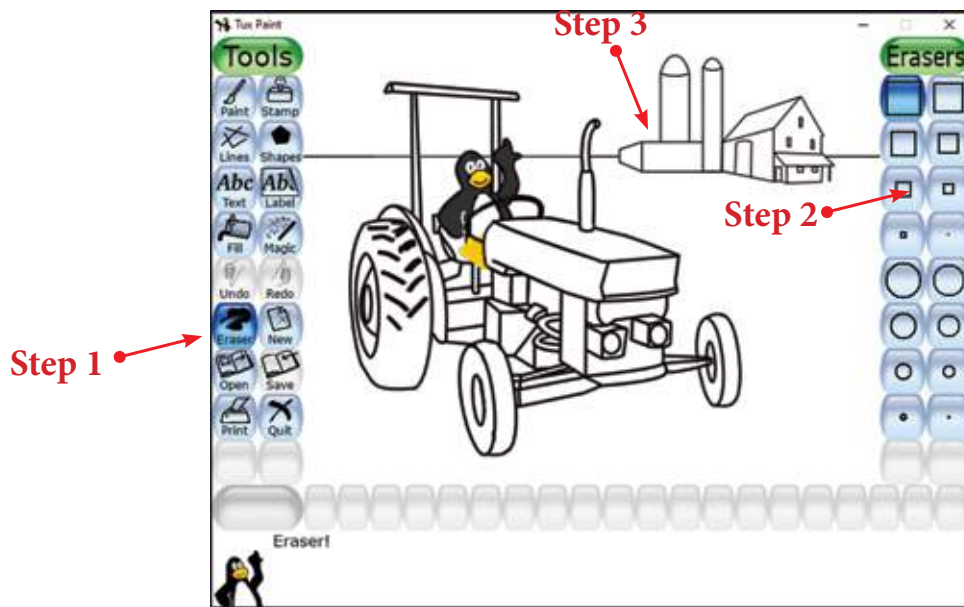
REMEMBER IT! 
The drawing area is the largest part of the screen in the centre.



Eraser or Undo Tool

The Eraser tool or Undo tool in the toolbar can be used to fix mistakes you make while colouring.

- **Step 1** : Click on the  Eraser tool.
- **Step 2** : Choose the size and shape of the eraser from the Erasers on the right side.
- **Step 3** : Click and erase the colour from the Drawing Area.



Let me Answer

Which tool should we click to go back one step?

Or

To reverse one step, simply click the undo button. You can click it as many times as necessary.

Saving a Drawing

To save a drawing, click on the  save button. The file is saved. Tux paint will automatically display a dialogue box asking you to save your file if you accidentally  close the software. Click 'Yes,  save it!' click  Tick button to save or select 'No, don't bother saving!' Click  Cross if you don't want to save it.

Opening a Drawing

The saved drawings in Tux Paint appear as thumbnails in a virtual picture book.

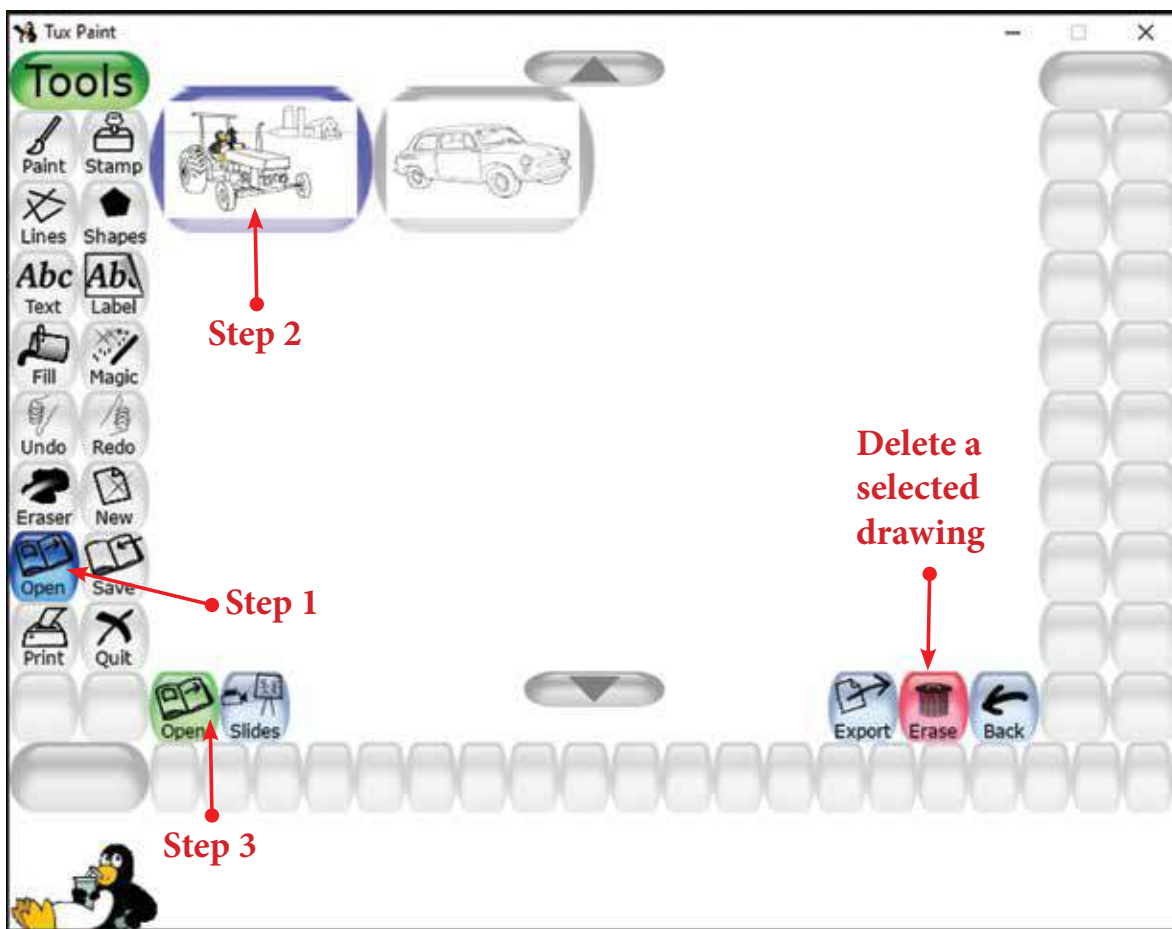
You can reopen your drawing to finish colouring the picture.



Do You Know?

Bill Kendrick was the developer and designer of Tux paint.

- **Step 1** : Click on the  Open button.
- **Step 2** : Select the Thumbnail of the drawing you want to open.
- **Step 3** : Click on  Open button to open the selected drawing.



If you want to delete a drawing, select it and then click on the  Erase button.



Choose the shapes from the shapes tool and draw a Car in Tux Paint. Mention the shapes used:

Ans.
.....
.....



Let's Recall

- Tux Paint is a free drawing program with fun sound effects.
- You are free to choose any shape and size of the eraser.
- To reverse one step, simply click the Undo button.
- The saved drawings in Tux Paint appear as thumbnails



Upskill Your Intelligence



A. Fill in the blanks.

1. You can delete a drawing by clicking on the tool.
2. Tux Paint is a drawing program.
3. To start a new drawing, click on the tool.
4. The tool is selected to draw and fill colour.
5. button is used to reverse one step.

B. Write 'T' for True statements and 'F' for False statements.

1. Different sizes of brushes are there. ☐
2. The information area is where you can draw. ☐
3. There is only one size of eraser available. ☐

4. Tux is the name of a penguin. ☐
5. You can reopen your drawings. ☐

C. Match the following :

1. Paint Tool
2. Open Tool
3. New Tool
4. Eraser Tool



D. Answer the following in one word:

1. The tool used for erasing.
2. The Tool which has different colours.
3. The largest part of the screen in Tux paint.
4. This tool is used to delete the picture.



Critical Thinking

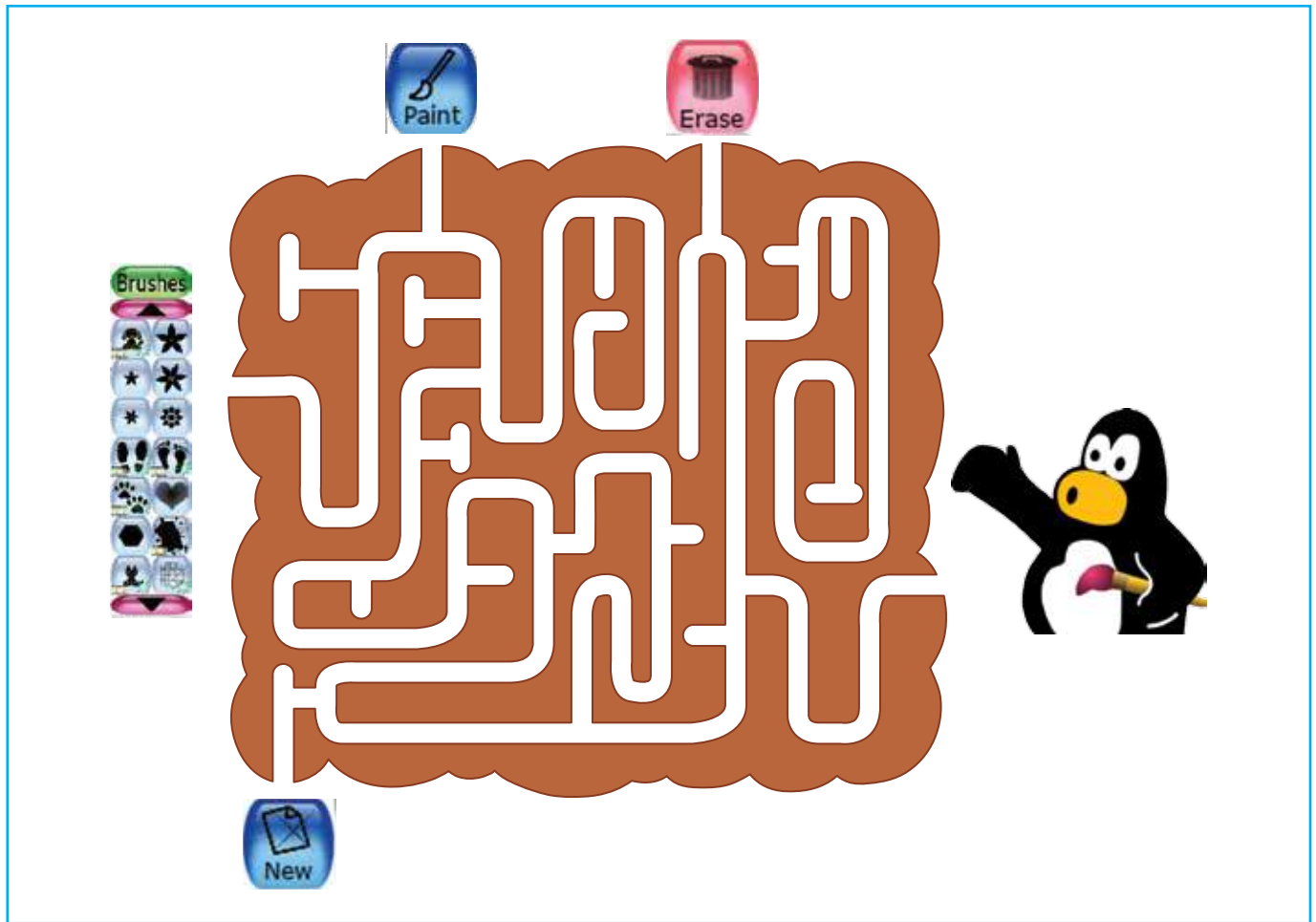
A. Rahul wants to undo an action but he doesn't remember the steps for the same. Arrange the following in order to help Rahul to erase the colour from the drawing.

Click and erase the colour from the Drawing Area. ☐

Choose the shape and size of the eraser. ☐

Click on the Eraser tool. ☐

B. Help the Tux to find the paint tool.



Team Work

A. Draw a card for your friend to thank him/her for giving such a wonderful birthday treat. Use your imagination to draw with the help of tools learnt in the class.



Model Test Paper-1

(Based on Chapter 1-4)

A. Multiple Choice Questions. (MCQ)

Tick (✓) the correct option.

- is difficult to carry.
(a) Humans ☐ (b) Dog ☐ (c) Computer ☐
- A computer is used in for scheduling a meeting.
(a) Library ☐ (b) Bank ☐ (c) Office ☐
- Buttons on the keyboard are called
(a) Accessories ☐ (b) Words ☐ (c) Keys ☐

B. Fill in the blanks with correct words given in the box.

Costomer's Keys Flash Games

- can be played on a computer.
- A pen drive is also called as drive.
- Keyboard has many buttons which are called as
- In a bank, we use computers to track account information.

C. Write 'T' for True statements and 'F' for False statements.

- A laptop can be carried any where. ☐
- We can perfrom multiple tasks with the computer. ☐
- A monitor is called a CPU. ☐
- The function of arrow keys is to move the cursor in different directions. ☐

D. Match the following.

A

- Enter key
- Alphabet keys
- Number of keys on a keyboard

B

- 26
- Two
- 104

Model Test Paper-2

(Based on Chapter 5-8)

A. Multiple Choice Questions. (MCQ)

Tick (✓) the correct option.

1. A mouse has buttons.
(a) Two ☐ (b) Three ☐ (c) Four ☐
2. A mouse is used to
(a) Type letters ☐ (b) Draw pictures ☐
(c) Type numbers ☐
3. The hard disk is kept inside the
(a) Laptop ☐ (b) CPU ☐ (c) PCU ☐

B. Fill in the blanks with correct words.

1. Without a, a computer would not be able to run.
2. The data inside the computer is stored in a
3. To start a new drawing, click on the tool.
4. Tux paint is a drawing program.

C. Write 'T' for True statements and 'F' for False statements.

1. A mouse moves on a mouse pad. ☐
2. You can play games using a mouse. ☐
3. We should maintain proper distance between our eyes and the computer screen. ☐
4. You cannot store data in a hard disk. ☐

D. Answer the following in one word.

1. The white arrow which moves on the monitor.
2. The tool which has different colour.
3. The tool used for erasing.
4. The largest part of the screen in Tux Paint.