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C<>deBot

Windows 10 with Office 2016

Davinder Singh Minhas

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PREFACE

Technology is one of the biggest catalysts in transforming and improving education process while playing a vital role in the progress of a country. As we know, the world is changing at a fast pace and so is the technology. Hence, it is imperative for us to make our students match this pace, and also to help them inculcate futuristic skills and mindset.

To make students ready to face the uncertain challenges and to stay tuned with the unprecedented journey of technology, **National Education Policy 2020** has suggested certain skills that should be learnt by them. These skills will help them in becoming successful, innovative, adaptable, and productive human beings in the various fields such as **Digital Literacy, Coding, Computational Thinking** and **Artificial Intelligence** in the rapidly changing tech-savvy world.

Envisaging the same vision of National Education Policy 2020, we have created **CodeBot**, a comprehensive, exhaustive computer series for classes 1 to 8. This series is based on the latest software packages and operating system such as **Microsoft Office 2016** and **Windows 10**.

This series contains **five** sections:

- **Digital Literacy:** This section would discern students the use of computer technology in day-to-day life. It would also help them comprehend the computer subject as a tool, which can be **integrated** with other subjects.
- **Computational Thinking:** To inculcate the skills of problem-solving among the students, we have introduced Computational Thinking from class 1 to 5. It consists of interesting and engaging activities on Patterns, Decomposition, Abstraction, Algorithm, etc.
- **Coding Junction:** Having children learn coding at an early age helps them organize their thinking and express their ideas to create programs using the computer. It empowers them not only to use technology, but also to create it. Keeping this in mind, we have introduced interactive fun-based coding for all levels such as **Scratch Jr** and **Scratch** from class 2 to 5; **Python** with gamification and GUI-based coding and **MIT App Inventor** from class 6 to 8.
- **Artificial Intelligence (AI):** Knowledge of Artificial intelligence is becoming more and more important as the students have to be AI-ready for the present and future. Therefore, we have introduced AI from class 1 onwards in a fun and engaging manner.
- **Cyber Zone:** This section covers Internet literacy and throws light on issues such as **cybercrimes** and **cyber security**, thereby encouraging students to be good digital citizens.

To produce a visually appealing and easy to understand book, we have artfully combined the latest technologies, pictures, drawings and texts in this series. Most of the topics in this series show a **step-by-step pedagogy** which simplifies the complex computer concepts. The terms and examples described in this series are those which every student will encounter while using computers.

To make the chapters exciting, **topic-relevant projects** have been added that encourage the students to try out for themselves, and to instill in them the confidence before they embark on making their own project using a particular software. Each project in the chapter presents practical problems and their complete solution in an easy-to-understand approach.

In a Nutshell section summarizes the whole chapter and the **Self-Evaluation** section examines the students and their understanding of chapter-wise computer concepts. **Exercises** and **Activities** have been included at the end of every chapter to assess the level of understanding of students.

We welcome constructive suggestions and feedback to make this series more comprehensive, relevant, updated and useful both for the teachers and the learners. You may mail us at editor@pmpublishers.in.

AUTHOR

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1

Computer – A Magic Machine

OBJECTIVES

After completing this chapter, you will be able to:

- Recognize natural and man-made things.
- Identify the different machines used at home.
- Identify computer as a machine.
- Understand the characteristics of a computer.



Introduction to Computer



Hi Kids! I am your new friend - Robo. I will help you learn and understand the computer as a machine.



Wow!



Computer is a smart machine. It can do many things for you.



There are many things around us. Some of these things are **natural** and some are **man-made**.



Natural Things

We see so many things around us, such as trees, flowers, animals, birds, clouds, and mountains.



Tree



Flower



Animal



Bird

Nature has created all these things.

That is why, they are called **Natural Things**.

Man-Made Things

We also see many other things around us, such as pencil, chair, ball, school bag, television, mobile phone, and bicycle.



Pencil



Chair



Ball



School Bag

Man has created all these things.

That is why, they are called **Man-Made Things**.

What is a Machine?

A machine is a man-made device that makes our work easy.



Given below are the pictures of some machines.



Television



Mobile Phone



Bicycle



Air Conditioner

There are two kinds of machines:

- (1) Manual machines
- (2) Electronic machines

- Manual machines are run by man.
- Electronic machines run on electricity.



Typewriter is a manual machine.



Laptop is an electronic machine.

Different Types of Machines

There are many types of machines that help you in one or the other way.



Some machines help you to **move** or **travel** faster.



Car



Bicycle



Bus

Some machines help you to do **work with ease**, at home.



Microwave Oven



Vacuum Cleaner



Washing Machine

Some machines **entertain** you.



Television



Music System



Video Game

Characteristics of a Computer

A computer is an **electronic machine**. It does many things and makes our work easier. Let the computer tell itself what all it can do for us.



I can sing a song for you.

I can show you a movie.

I can play games with you.

I can count.

I can tell you a story.

I can help you draw and paint.

I can work very fast and save time.

I never make mistakes and never get tired.

I can remember many things.

In a Nutshell



- A machine is a man-made device that makes our work easy.
- Manual and electronic machines are two kinds of machines.
- A computer is an electronic machine that works very fast.
- A computer never makes mistakes and never gets tired.



Exercises

A. Tick [✓] the correct answer.

- is a smart machine.
a. Computer ☐ b. Bicycle ☐ c. Human ☐
- Machines make our work
a. boring ☐ b. easy ☐ c. difficult ☐
- We can play on a computer.
a. machines ☐ b. flowers ☐ c. games ☐

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

- Nature has created natural things.
- Manual machines run on electricity.
- A computer can do many things.

C. Fill in the boxes.

- A computer is a

M		C		I		E
---	--	---	--	---	--	---

.
- A computer never makes

M		S	T		K	E	
---	--	---	---	--	---	---	--

.
- A computer can show you a

M		V		E
---	--	---	--	---

.

D. Application-based Question

Akash wants to create a drawing and at the same time he also wants to listen to music. Which electronic machine should he use?

Activity Section

Activity Tick

A. Tick [✓] the correct picture shown below.

1. Your father wants to reach office quickly. He should go by:



Car



Walking

2. Your brother wants to go to the sixth floor of the mall quickly. He should use:



Stairs



Escalator

B. Tick [✓] the machines used in our home.



Activity Write

Write the letters of English alphabet of the given number positions. Complete the word. One has been done for you.

3rd	15th	13th	16th	21st	20th	5th	18th
C							

Activity Fun

This is the picture of a computer. Colour it using crayons.



Art Integration

Students will learn to color as well as learn about computer system.




Lab Activity

GCompris is a free educational software suite comprising of many fun activities for children aged 2 to 10 years. You can download GCompris from the Internet by using the link:

<https://gcompris.net/downloads-en.html>



Open the Educational Suite GCompris [].

1. Click on this icon [] from the top of GCompris.
2. Click on Baby Puzzle [].



PLAYING METHOD



You can play this game by moving or dragging a piece of puzzle with the mouse to the gray-colored puzzle.

You can use the rotation button if you need to rotate the piece of puzzle. Your level in the game increases as you complete the puzzle.

Skill Formation

This activity increases the cognitive skills and spatial intelligence in students.

2

Computer – Its Parts and Uses

OBJECTIVES

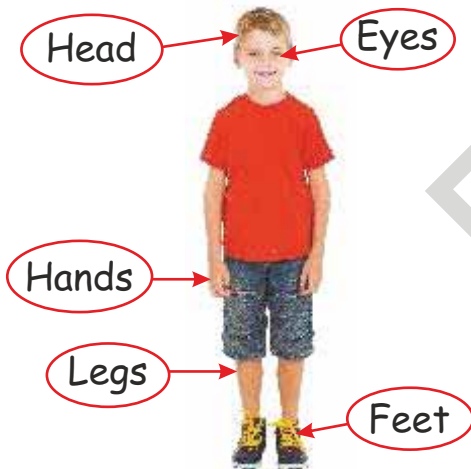
After completing this chapter, you will be able to:

- Recognize the four main parts of a computer.
- Identify the purpose of these parts.
- Understand the different uses of a computer.

Hello Friends! Would you like to know more about computers? Let us start.

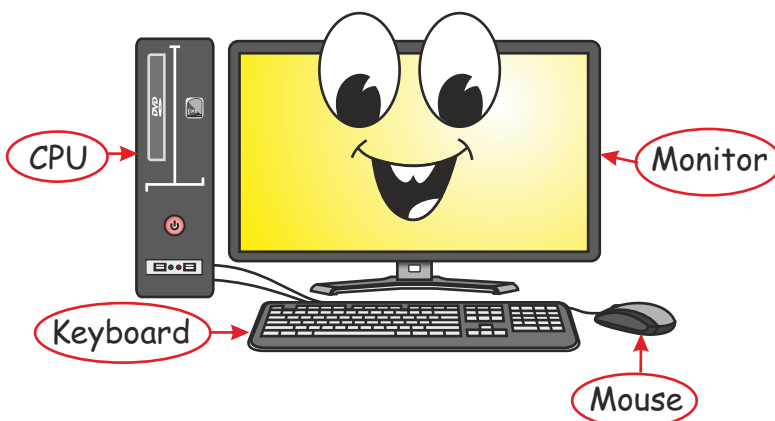


Parts of a Computer



Our body has different parts. Every part in our body has some special function to perform. For example—eyes are used for seeing, hands for writing, and legs for walking.

Similarly, a computer also has different parts.



A computer has **four** main parts.

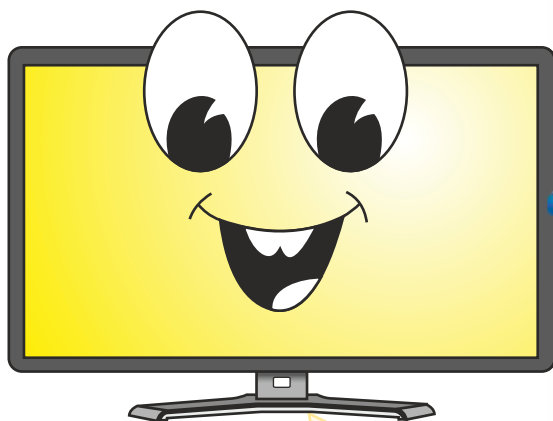
These are — **CPU, Monitor, Keyboard** and **Mouse**.

These parts together help a computer system to work.

Functions of Computer Parts

Now, you will learn about the functions of different computer parts. These parts will tell you about their functions themselves!

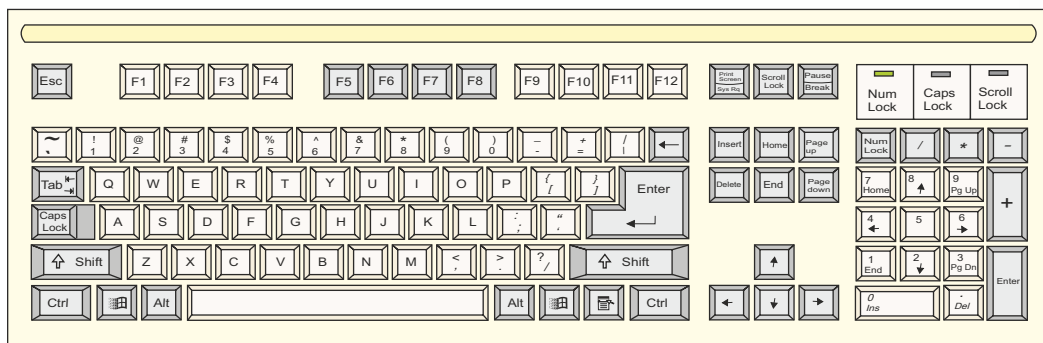
1. MONITOR



Who are you?

I am the **monitor**. I look like a **television screen**. I display everything that you do on a computer. I can display drawings, words, numbers, games, cartoons, and much more.

2. KEYBOARD



Who are you?



I am the **keyboard**. I have many buttons called **keys**. I am used to type words and numbers on a computer.

3. CPU



Who are you?

I am the **CPU**, which stands for **Central Processing Unit**. I am the **brain of a computer**. I control all the parts of the computer.



4. MOUSE



Who are you? You look like a creepy mouse!

Oops! Do not compare me with the mouse that spoils your food and other things.

I am the **computer mouse**. I have two **buttons** and a **scroll wheel**. I help you to draw, paint and play games on a computer.

Hello Kids! Now, I am going to tell you about the uses of a computer.



Drawing and Coloring



A computer can help you draw and paint.



You can draw and paint anything very easily just by using the mouse.

Playing Games



A computer can play games with you.



You can play lots of games on a computer. Games such as **boxing, cricket, tennis** and many others can be played on it.

Watching Movies and Cartoons

A computer can show you movies and cartoons.



Computer can be used for watching movies and cartoons. You can watch movies and cartoons such as **Superman** and **Donald Duck**.

Playing Music

A computer can play music for you.



You can listen to songs and rhymes with the help of speakers attached to the computer.

Typing

A computer can type words, sentences and numbers.



You can type your name, class, roll number and anything on the computer by using a keyboard.

Searching on the Internet



A computer can search any information for you.



You can search information on any topic on the computer by using the Internet.

Chatting

A computer can help you in chatting.



You can chat with your friends and family members by exchanging typed messages on the computer.

Saving



A computer can save your work.



You can **store** your work in a computer for future use. It is also called **saving**. Once you save your work properly, it never gets lost. You can review your work anytime later.

In a Nutshell

- A computer has four main parts that help it to work.
- Monitor displays everything we do on a computer.
- Keyboard is used to type words and numbers on a computer.
- CPU controls all the parts of the computer.
- We can draw and paint quickly and easily on a computer.
- A computer can entertain us by showing movies and cartoons.
- A computer can store our work for future use.



Exercises

A. Tick [✓] the correct answer.

- The monitor looks like a screen.
a. CPU ☐ b. mobile ☐ c. television ☐
- Keyboard is used to type and numbers.
a. words ☐ b. songs ☐ c. videos ☐
- A computer mouse has buttons.
a. two ☐ b. three ☐ c. four ☐
- You can listen to songs with the help of
a. keyboard ☐ b. speakers ☐ c. mouse ☐

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

- A computer has three main parts. ☐
- The CPU has many buttons called keys. ☐
- You can play games on a computer. ☐
- A computer can help you in chatting. ☐
- A computer can store your work for future use. ☐

C. Who am I?

1. I have many buttons which are used to type numbers and words.

Y A D

2. I help you to draw lines, paint shapes and play games.

O E

3. I am the brain of a computer.

P

D. Fill in the boxes.

1. You can watch M V S and cartoons on a computer.

2. You can draw and P I T shapes using mouse.

3. You can play many G M S on a computer.

4. You can T P your name and class on a computer.

5. You can S A C information on a computer.

E. Write the use of a computer by looking at the picture.





F. Application-based Question

The computer teacher asked Rahul if he has seen anything at home which resembles the computer monitor. What is it?

Activity Section

Activity Find and Write

Find the missing part of each of the following computers and write its name in the space given below.








Lab Activity

Open the Educational Suite GCompris [].

1. Click on this icon [] from the top of GCompris.
2. Click on Find your left and right hand [].

Skill Formation

- This activity enhances
- the cognitive skills of
- students.



PLAYING METHOD

You can play this game by clicking on **Left hand** or **Right hand** button, depending upon the displayed hand on the screen.

You have to identify right and left hands from different points of view.

3

The Keyboard and Mouse

OBJECTIVES

After completing this chapter, you will be able to:

- Understand the various features of a keyboard.
- Identify the different types of keys and their functions.
- Learn about the different parts of a mouse.
- Understand the different functions of a mouse.

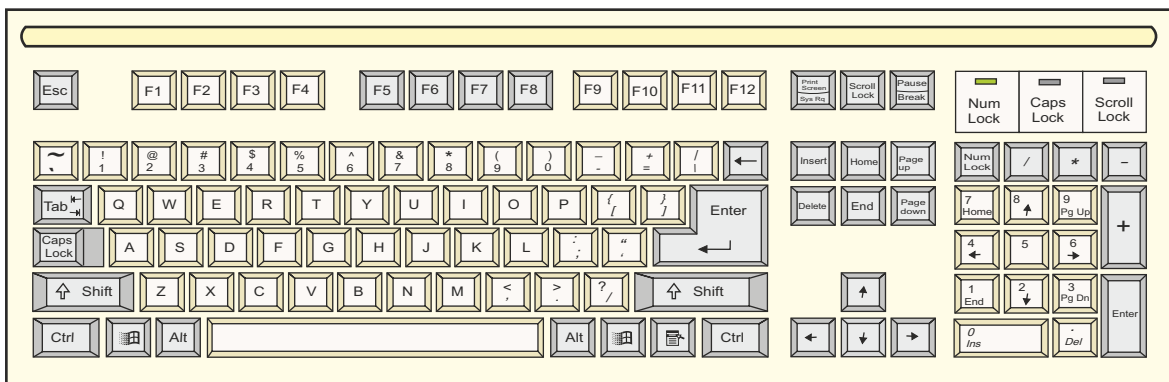
Hey Kids! You have already learnt about computer parts. Now, you are going to learn to work with keyboard and mouse.



Keyboard

You use pencil to write in your notebook. In the same way, a **keyboard** is used to write on a computer.

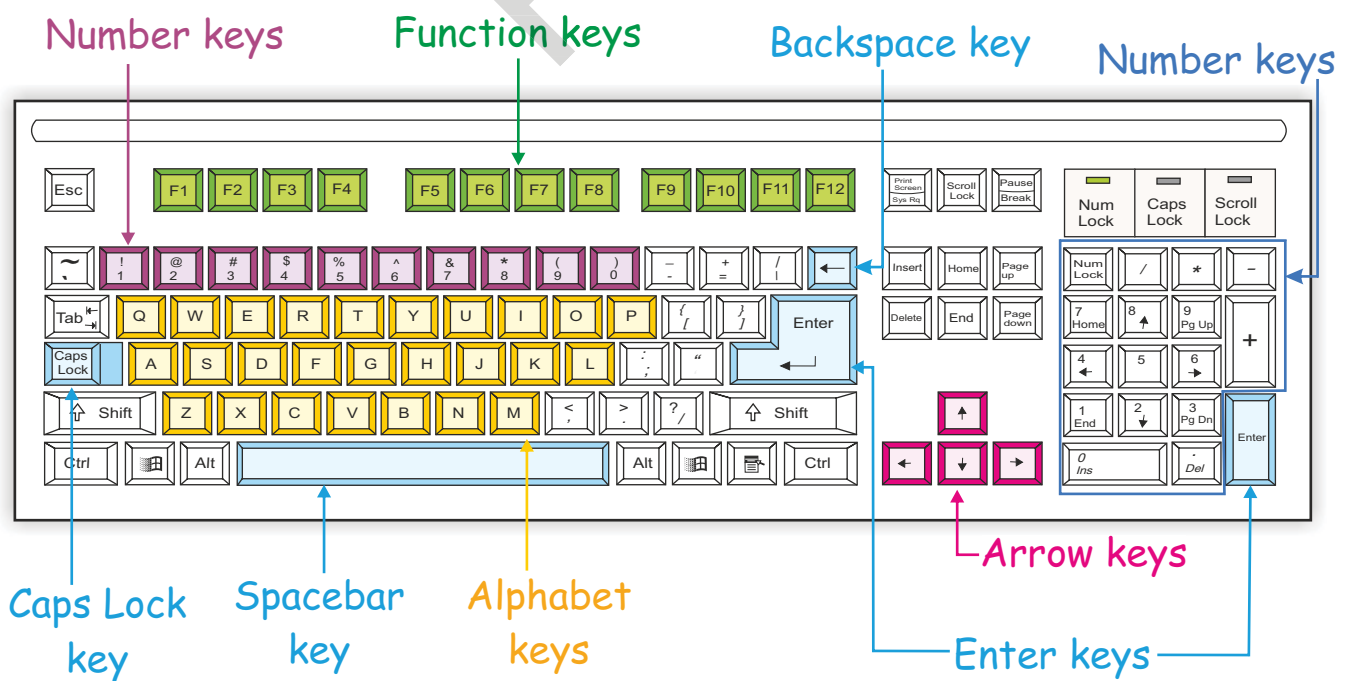
Writing on a computer using the keyboard is called **typing**.



A Keyboard

FEATURES OF KEYBOARD

- Keyboard is one of the main parts of the computer, which is used to type on it.
- It has many buttons, which are called **keys**.
- There are **101 to 105** keys on the keyboard.
- The keys on the keyboard are mainly divided into five groups:
 1. **Alphabet keys** — (a to z or A to Z)
 2. **Number keys** — (1, 2,, 9, 0)
 3. **Special keys** — (Enter, Spacebar, Caps Lock, Backspace, etc.)
 4. **Function keys** — (F1 to F12)
 5. **Arrow keys** — (Up, Down, Left, and Right)



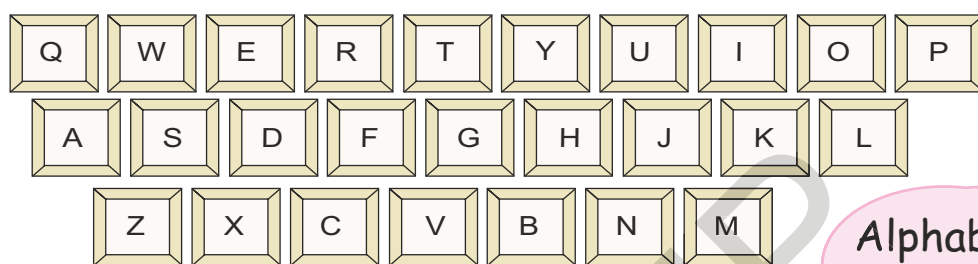
Keys on a Keyboard

Now, you will learn about these keys and their functions in detail.

Alphabet Keys

There are 26 **Alphabet keys** with the letters **A** to **Z** marked on the keyboard. These keys help you type words and sentences.

The keyboard does not have keys in an alphabetical order like **A, B, C** and so on.

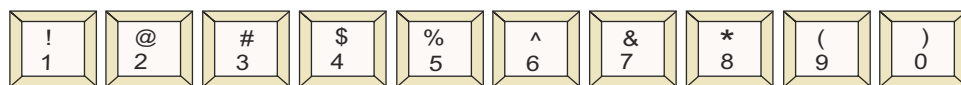


Alphabet keys



Number Keys

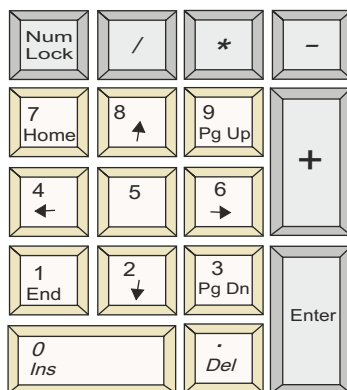
The keys marked with digits **1, 2,, 9** and **0** are the **Number keys**. They are ten in number. They are used to type numbers and digits.



Number Keys

Number keys are present at two places on the keyboard:

1. Above the upper row of the Alphabet keys
2. On the far right of the keyboard, also called the **Numeric keypad**



Numeric Keypad

Number keys



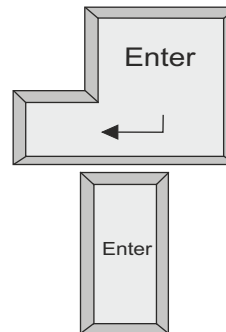
Special Keys

ENTER KEY

Enter key is used to move the cursor to the next line while typing.

Enter key is also called **Return key**.


There are **two** Enter keys on the keyboard.



Enter keys



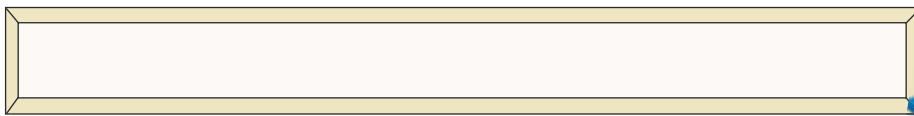
What is a cursor?

A cursor is a small blinking line  on the monitor.



SPACEBAR KEY

Spacebar is the **longest** key on the keyboard. It is used for giving a blank space to the right of a character.






Spacebar key



Type a sentence-**'I love my country'**.

Without using the Spacebar, it will look like, 'Ilovemycountry'.
Now, type the sentence using the **Spacebar** key.

I  love  my  country.

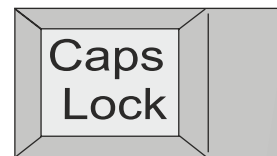
↑ ↑ ↑
space

First type **I**, then press the **Spacebar** key. Type **love** and press the **Spacebar** again. Then, type **my**, press the **Spacebar** again, and then type **country**. In this way, you have typed a complete sentence correctly with proper space.

CAPS LOCK KEY

Caps Lock is an On/Off key. If the Caps Lock key is **On**, capital letters (A, B, C) are typed. If the Caps Lock key is **Off**, small letters (a, b, c) are typed.

Caps Lock key

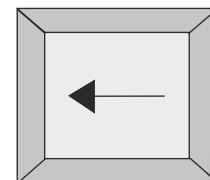


BACKSPACE KEY

Backspace key is used to erase the letters or numbers to the left of the cursor.

This is the last key in the row of Number keys, marked with **backward arrow**.

Backspace key

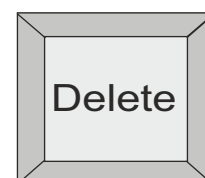


DELETE KEY

Delete key is also used to erase the letters or numbers, but to the right side of the cursor.

You can also erase the selected text or graphics, using this key.

Delete key



Function Keys

There are twelve **Function keys** marked with **F1** to **F12**. These keys are used to perform different functions.

Function keys are located on the topmost row of the keyboard.



Function keys



Arrow Keys

There are four **Arrow keys** which are used to move the cursor **up**, **down**, **left** and **right** on the monitor.



It is used to move the cursor **up**.



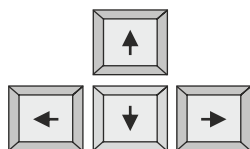
It is used to move the cursor **down**.



It is used to move the cursor **one character right**.



It is used to move the cursor **one character left**.



Arrow keys



Update Your Knowledge

The **QWERTY** keyboard has the first top row's alphabet keys as Q, W, E, R, T, Y. You can also see QWERTY keypad layout on a smartphone.

Kids! After learning about keyboard, let us learn about the Mouse, which is another important part of a computer.



Mouse

A **mouse** is a **pointing device**, which is used to point, select or move items on a monitor.

A mouse is also used to **draw** and **paint**.



Mouse



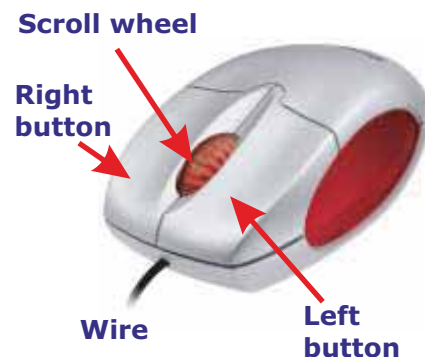
Mouse Pointer

Whenever you move the mouse, a small arrow also moves on the monitor. This small arrow is known as **mouse pointer**.

PARTS OF A MOUSE

A mouse commonly has two **buttons** and a small **scroll wheel** on it.

It also has a long wire attached to it.



HOLDING A MOUSE

- Keep your **palm** gently on the mouse.
- Keep your **index finger** on the **left button**.
- Keep your **middle finger** on the **right button**.
- To move the scroll wheel of the mouse, use your **index finger**.
- Always keep the mouse on the **mouse pad** to move it smoothly.

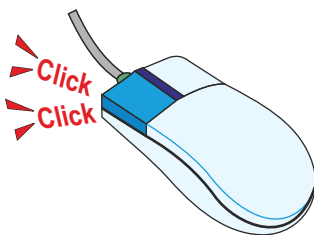
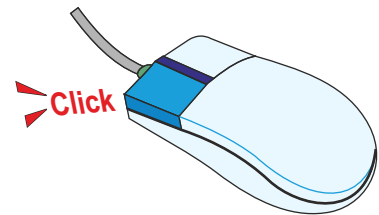


FUNCTIONS OF A MOUSE

Pressing the mouse button is called **clicking**. You can click a mouse button in different ways to perform different functions.

Single-Click

Pressing the **left** mouse button once is called **single-click**. It is used to select an item.

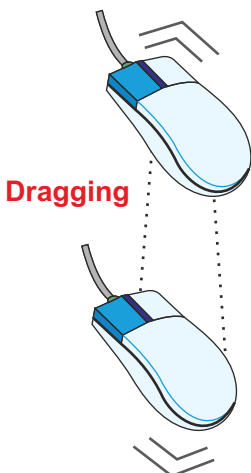
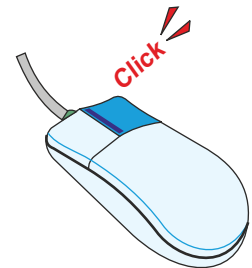


Double-Click

Pressing the **left** mouse button two times (twice) quickly is called **double-click**. It is used to open a file or folder.

Right-Click

Pressing the **right** mouse button once is called **right-click**. It is used to open a pop-up menu.



Dragging

Clicking and holding the left button while moving the mouse is called **dragging**.

You can drag the mouse to move the object from one place to another on the monitor.

You can also drag the mouse to draw shapes and pictures.

SCROLL WHEEL

Scroll wheel is located between the left and right mouse buttons. It is used for scrolling up and down on the monitor.



Scroll Wheel

In a Nutshell

- A keyboard is used to type on the computer screen.
- There are 26 Alphabet keys used to type words and sentences.
- There are ten Number keys used to type numbers.
- There are four Arrow keys for moving the cursor.
- Function keys are used to perform different functions.
- Mouse is a pointing device which is used to draw and paint.
- A mouse has two buttons and a small wheel on it.
- Single-click, double-click, right-click and dragging are different functions of the mouse.



Exercises

A. Tick [✓] the correct answer.

1. A is used to type into a computer.
a. keyboard ☐ b. printer ☐ c. mouse ☐
2. There are Alphabet keys on the keyboard.
a. 12 ☐ b. 20 ☐ c. 26 ☐
3. Enter key is also called key.
a. Exit ☐ b. Return ☐ c. Function ☐
4. Backspace key is used to erase the letters to the of the cursor.
a. middle ☐ b. right ☐ c. left ☐
5. A mouse is a device.
a. holding ☐ b. pointing ☐ c. typing ☐

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

1. Alphabet keys are used to type words.
2. Spacebar is the shortest key on the keyboard.
3. There are ten Function keys on the keyboard.
4. We keep index finger on the left mouse button.
5. You cannot drag pictures using a mouse.
6. Pressing the left mouse button once is called single-click.

C. Guess and complete the name of the following key(s).

1. We can type your name.

A		P		A			T
---	--	---	--	---	--	--	---
2. When I am ON, I type capital letters.

C		P				C	
---	--	---	--	--	--	---	--
3. I can move the cursor to the next line.

E		T		R
---	--	---	--	---
4. I can erase the letters and numbers.

B		C		S			C	
---	--	---	--	---	--	--	---	--

D. Application-based Question

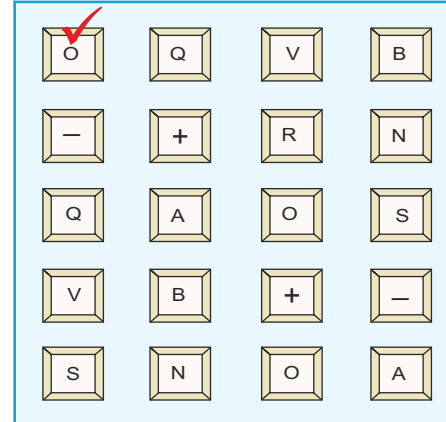
The computer teacher asked Raghu to identify and name the longest key on the keyboard. He could easily identify it but was unable to tell the name. Help Raghu to name it.

Activity Section

Activity Tick

Tick [✓] the correct key. One has been done for you.

1. C.....MPUTER
2. 5 5 = 10
3. MOU.....E
4. KEY.....OARD
5. MONIT.....R



Activity Unscramble

Unscramble the following words by using the clues. Write letters to complete the words.

1. N G T P I N O I E V D I E C

Clue: A Mouse

P I N N D I C

2. I D L D M E G I E N F R

Clue: It is kept on right mouse button.

M D L F N E

3. E S O U M I R P T N O E

Clue: A small arrow on the screen

M U E P N T



4. A N D G R I G G

Clue: Pressing, holding and moving a mouse

D A G I G

Lab Activity-1

Open the Educational Suite GCompris [].

1. Click on this icon [].
2. Click on Simple Letters [].





PLAYING METHOD

To play this game, type the falling letters from the sky before they reach the ground. Your level in the game increases when you type all the letters correctly.

Lab Activity-2

Open the Educational Suite GCompris [].

1. Click on this icon [].
2. Click on Click and draw [].



Skill Formation

These activities aid in developing cognitive and fine motor skills among students.

PLAYING METHOD

Draw the picture by clicking on each blue point which appears in a sequence. When you click on the blue point, a line gets drawn to complete the picture.

The next picture appears only when you click all the blue points.

Group Discussion

Divide the students into two groups and discuss the topic – 'Computer Mouse vs Real Mouse'.

4

Paint – Introduction

OBJECTIVES

After completing this chapter, you will be able to:

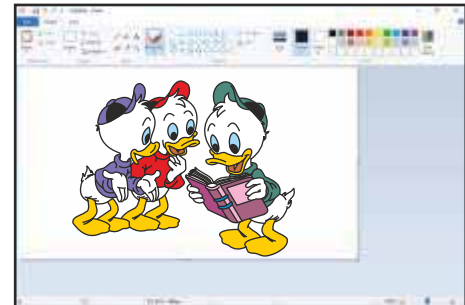
- Start Paint program.
- Understand various tools in the Tools group.
- Draw different shapes using Shapes group.
- Save your work for future.



Hi Kids! I know all of you like drawing and coloring. Now, I will tell you how to draw and color on a computer. Let us start.

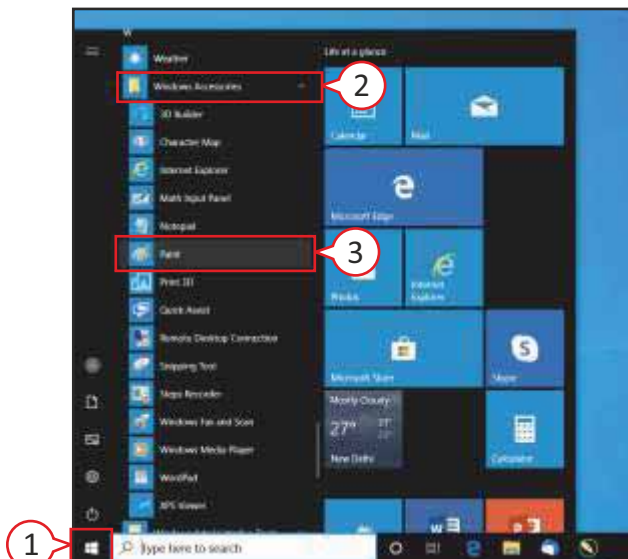
Paint

Paint or MS-Paint is a colorful drawing program developed by Microsoft. It is used to draw, color and edit pictures and shapes.



STARTING PAINT PROGRAM

To start Paint, follow the steps given below.



The Paint program appears.

1. Click on **Start** icon.

The Start menu appears.

A list of all programs appears on the left.

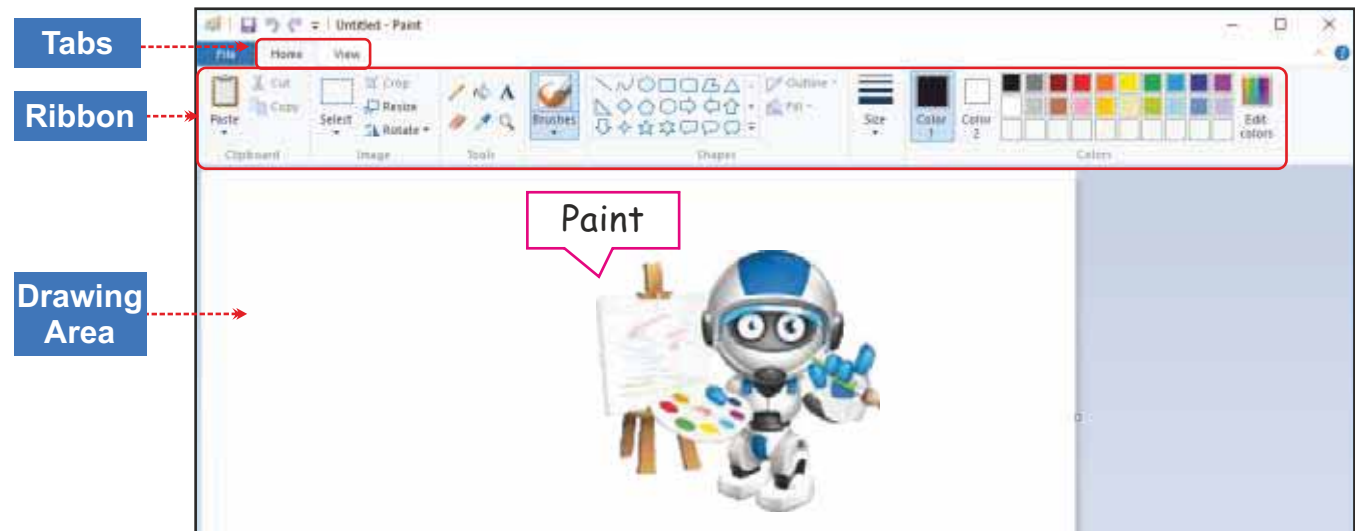
You can scroll down to see **Windows Accessories**.

2. Click on **Windows Accessories**.

3. Now, click on **Paint**.

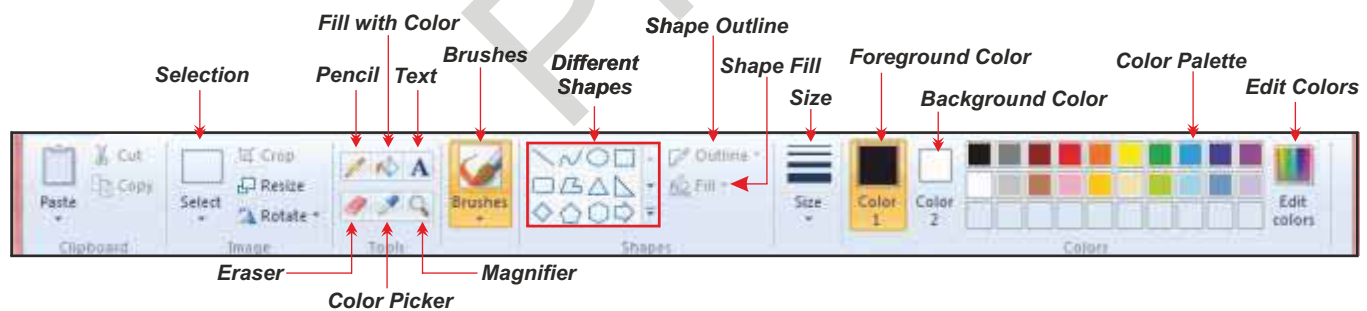
PARTS OF PAINT PROGRAM

The Paint program consists of many parts as shown below.



Tabs: **Home** and **View** are two main tabs which contain different commands. When you click on any tab, a ribbon appears.

Ribbon: It contains different **groups**. Each group contains different **tools**. These tools are required to make a drawing.



Ribbon of Home tab

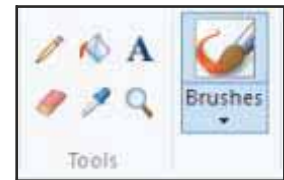
Drawing Area: It is the blank area where you draw and paint.

COLORS GROUP

Colors group is in the right side of the Ribbon. It is used to select the color you want to fill in your drawing.

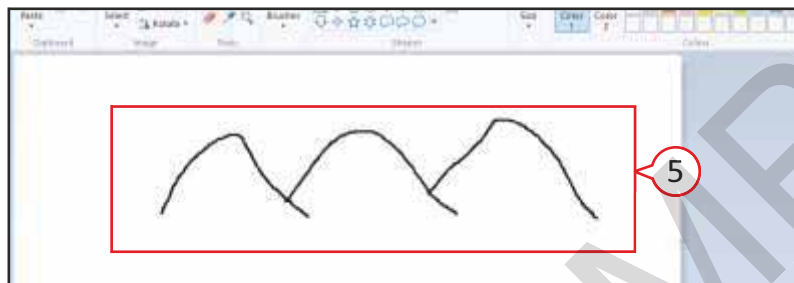
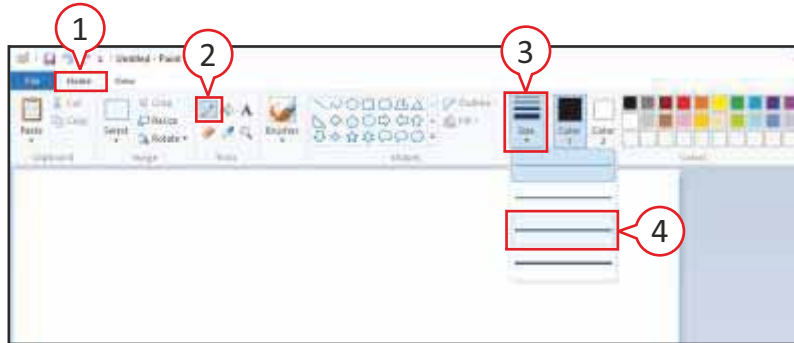


Tools in the Tools Group



PENCIL TOOL

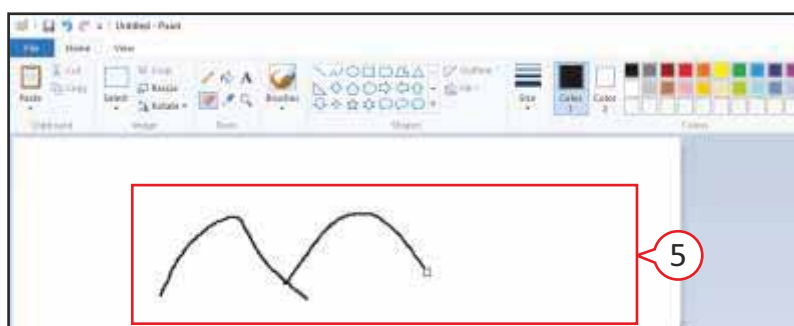
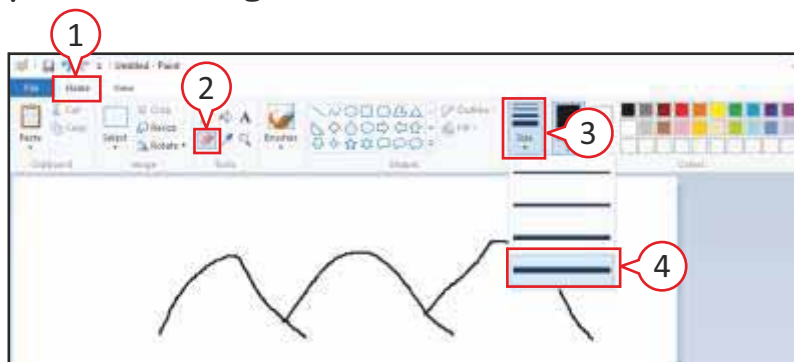
Pencil tool is just like a real pencil that you use for making drawings. You can draw straight, wavy or curved line with it.



1. Click on **Home** tab.
2. Click on **Pencil** tool.
3. Click on **Size** box.
4. Select the width of line.
5. In the drawing area, drag the mouse and start making your drawing.

ERASER TOOL

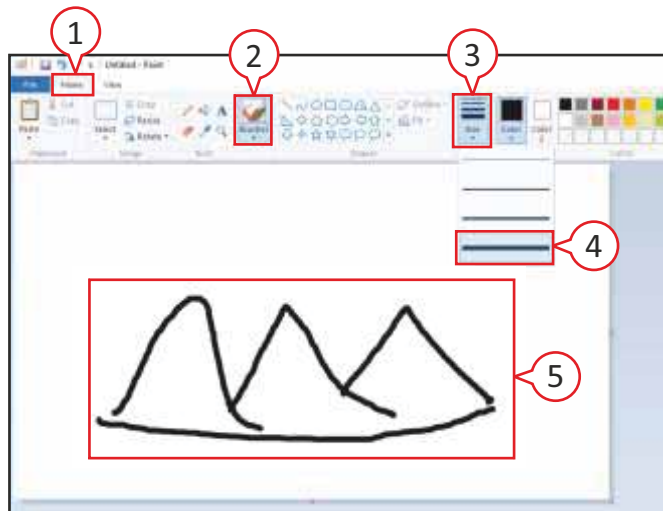
Eraser tool is just like a real eraser which you use to erase your drawings.



1. Click on **Home** tab.
2. Click on **Eraser** tool.
3. Click on **Size** box.
4. Select the width of the eraser.
5. Drag it on your drawing in the drawing area to erase the required part of the drawing.

BRUSHES TOOL

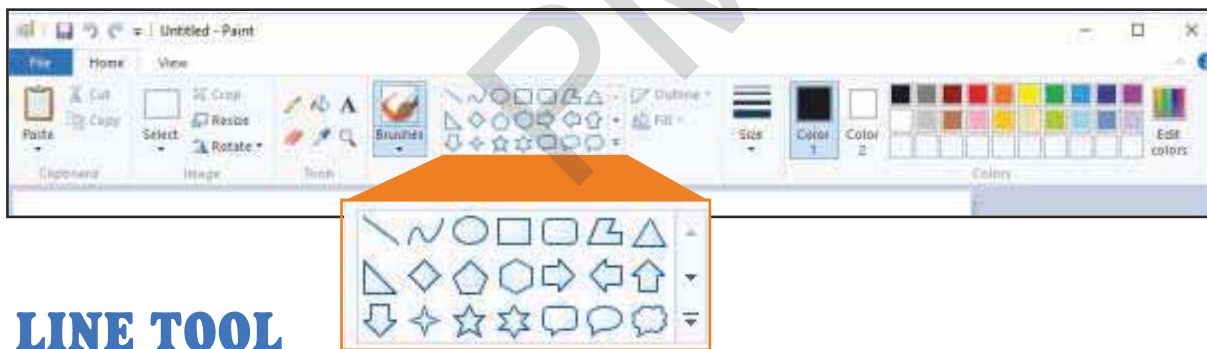
Brushes tool is used just like a real paint brush.



1. Click on **Home** tab.
2. Click on **Brushes**.
3. Click on the **Size** box.
4. Select the width of the brush.
5. Now in the drawing area, drag the mouse and start making your drawing.

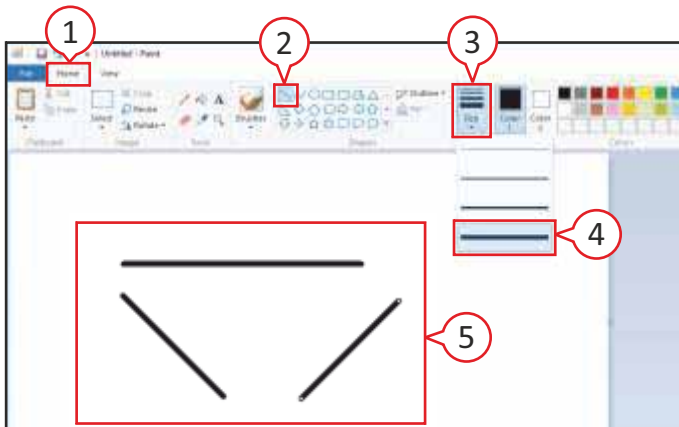
Shapes Group

You can use the **Shapes** group in Paint to draw different types of shapes such as rectangle, oval, triangle, arrows and many more.



LINE TOOL

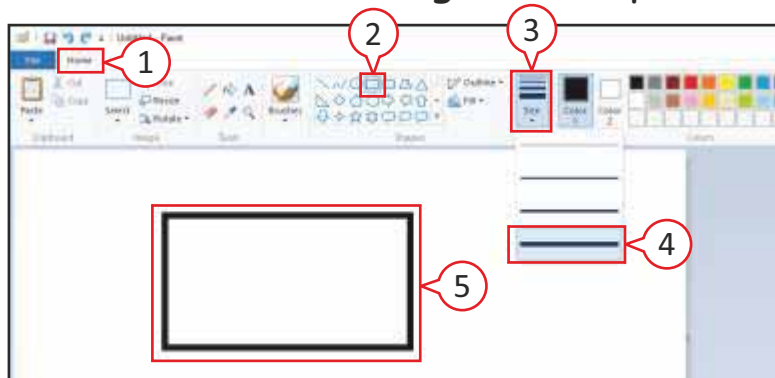
By using **Line** tool, you can draw straight and slant lines of varying thickness.



1. Click on **Home** tab.
2. Click on **Line** tool.
3. Click on the **Size** box.
4. Select the width of line.
5. Drag the mouse to draw the line in any direction.

RECTANGLE TOOL

You can draw rectangle and square with **Rectangle** tool.

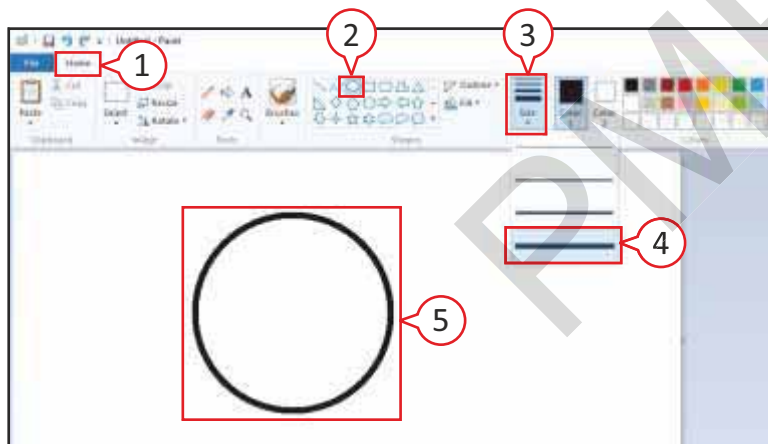


1. Click on **Home** tab.
2. Click on **Rectangle** tool.
3. Click on the **Size** box.
4. Select the border width of rectangle.
5. Drag the mouse to make rectangle.

You can also draw a rounded rectangle, triangle and other shapes by using this method.

OVAL TOOL

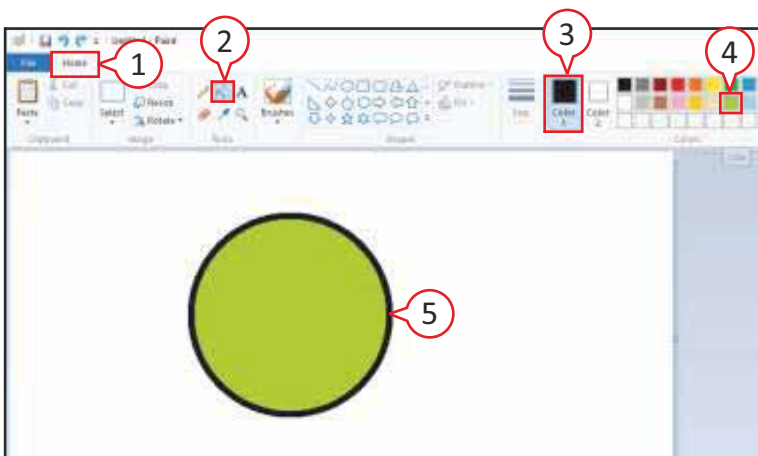
Oval tool is used to draw circle and oval shapes.



1. Click on **Home** tab.
2. Click on **Oval** tool.
3. Click on the **Size** box.
4. Select the border width of circle.
5. Drag the mouse to make oval or circle.

FILL WITH COLOR TOOL

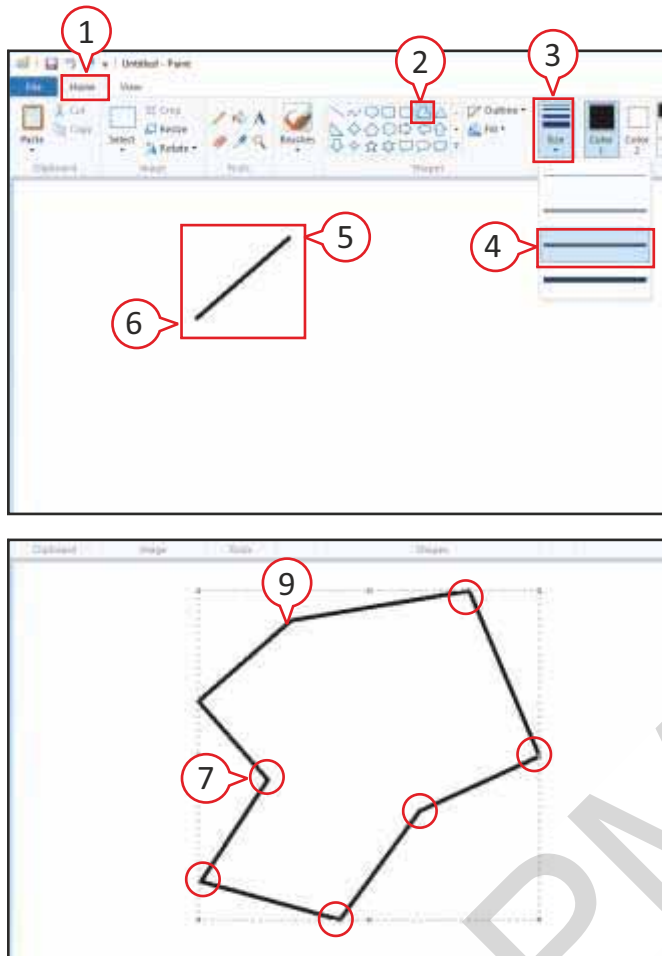
You can fill color in your drawing using **Fill with color** tool.



1. Click on **Home** tab.
2. Click on **Fill with color** tool.
3. Click on **Color 1** box.
4. Click on any color from the **Color Palette**.
5. Click inside the area where you want to color.

POLYGON TOOL

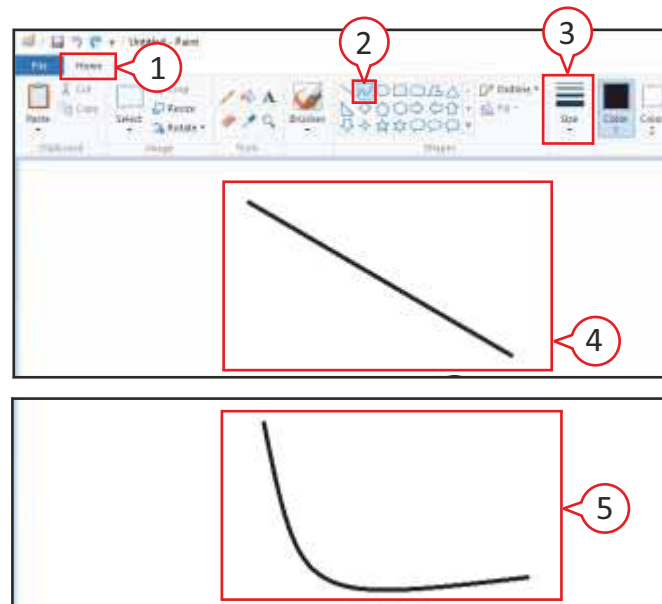
Polygon tool is used to make a shape with any number of sides.



1. Click on **Home** tab.
2. Click on **Polygon** tool.
3. Click on the **Size** box.
4. Select the width of line.
5. Press the left button and drag the mouse.
6. Release the mouse button to make a line.
7. Now, click anywhere in the drawing area.
A line appears attached to your previous line.
8. Repeat step 7 until you make the final shape.
9. Now, click on the starting point of the shape.

CURVE TOOL

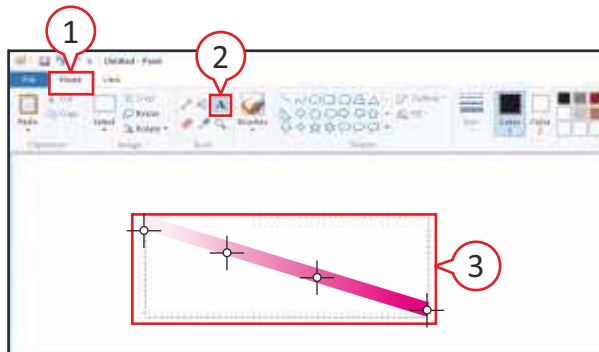
You can draw curved lines with **Curve** tool.



1. Click on **Home** tab.
2. Click on **Curve** tool.
3. Click on the **Size** box and select the line thickness.
4. Drag the mouse to make a line.
5. Now, click on the line and drag to make a curve.

TEXT TOOL

You can write in Paint with the help of **Text** tool.



1. Click on **Home** tab.
2. Click on **Text** tool.
3. Drag the mouse pointer in the drawing area.



A text box appears with the **cursor** blinking inside.

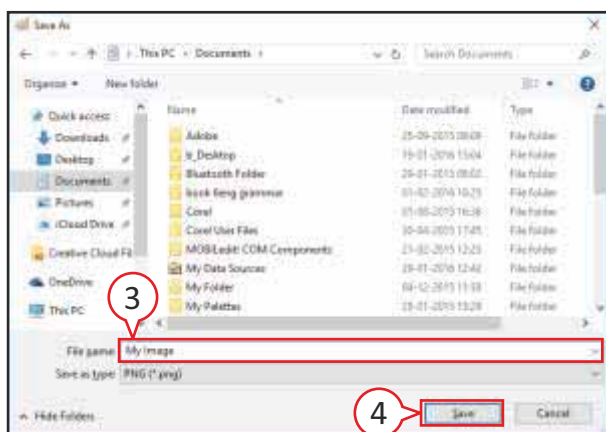
4. Type your text in the text box using keyboard.

Saving Your Work

While drawing, you must **save** it side-by-side for future use. Follow these steps to save your drawing.



1. Click on **File** option.
File menu appears.
2. Click on **Save** option.
The **Save As** dialog box appears.



3. Type the name for the drawing in **File name** text box.
4. Click on **Save** to save your drawing.



Do You Know?

Shortcut key to save a drawing is **Ctrl + S**.

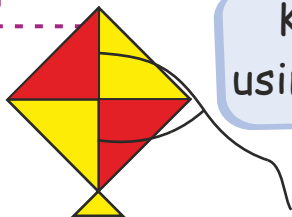
Project: Creating a Kite

Skill Formation

- This multidirectional activity will enhance spatial intelligence among the students.



Start



Kids! Let us draw a kite by using the various tools of Paint.



Fig. A

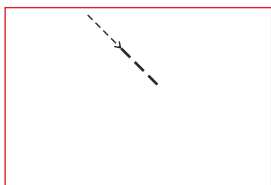


Fig. B

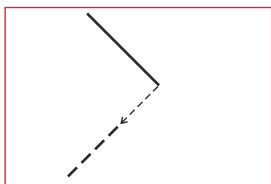


Fig. C

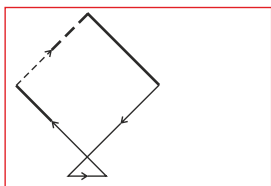


Fig. D

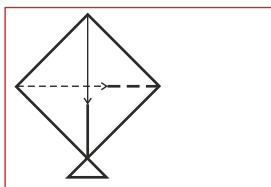


Fig. E

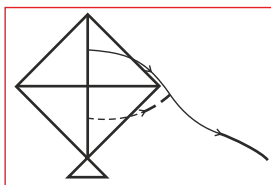


Fig. F

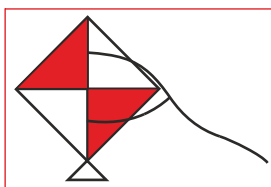
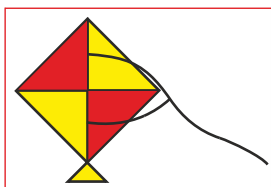


Fig. G



1. Click on the **Line** shape [\] with mouse pointer and bring the pointer to the drawing area.
2. Click and hold the left mouse button and drag it in the drawing area as shown in **Fig. A**.
3. Release the mouse button.
4. Now, drag the mouse in the other direction as shown in **Fig. B**.
5. Continue dragging the mouse to complete the outline as shown in **Fig. C**.
6. Now, draw lines in the middle to join opposite corners as shown in **Fig. D**.
7. Click on the **Brushes** tool in the toolbox.
8. Click and drag the mouse to make thread in the kite as shown in **Fig. E**.
9. Click on **Fill with color** tool and select **Color 1** box.
10. Select red color from the Color Palette.
11. Click on the opposite boxes to fill with red color as shown in **Fig. F**.
12. Similarly, fill yellow color in the other boxes as shown in **Fig. G**.

Your colorful kite is ready and your project is complete.



Finish




In a Nutshell

- Paint is a drawing program used to draw and edit objects.
- Ribbon contains different groups, which contain different commands required to make a drawing.
- Colors group is used to select the color to fill in the drawing.
- Pencil tool is used to draw straight, wavy and curved lines.
- Shapes group is used to draw different types of shapes.
- Text tool is used to write in Paint.



Exercises

A. Tick [✓] the correct answer.

- program is used to draw and color objects.
a. Paint ☐ b. Notepad ☐ c. Calculator ☐
- contains different groups.
a. Canvas ☐ b. Tab ☐ c. Ribbon ☐
- tool is used to draw straight and slant lines.
a. Line ☐ b. Circle ☐ c. Brush ☐
- tool is used to write your name within a drawing.
a.  ☐ b.  ☐ c.  ☐

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

- Colors group is at the left side of the ribbon.
- Oval shape is used to delete a drawing.
- Curve shape is used to draw straight lines.
- You can type text in Paint program.

C. Fill in the boxes.

1.

P		N			L
---	--	---	--	--	---

 tool is used to draw straight and wavy lines.
2.


E			S		R
---	--	--	---	--	---


 tool is used to erase any part of a drawing.
3.


S		A			S
---	--	---	--	--	---

 group is used to draw different types of shapes.

D. Write the names of the following tools.

1.  _____

2.  _____

3.  _____

E. Answer the following questions.

1. What is the use of Paint program?

2. Which tool is used to make a shape with any number of sides?

F. Application-based Question

In MS-Paint, Yash made a figure. Now, he wants to add his name and class in it. As he does not know which tool he should use to do it, he needs your help. Help him by telling the tool's name.

Activity Section

Lab Activity

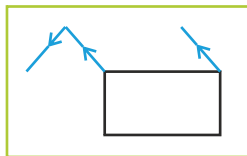
Art Integration

Students would learn about shapes and their use in creating a drawing.

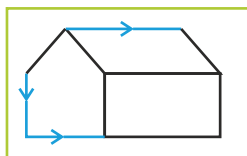
A. Draw a hut by following the given steps.



1. Click on the **Rectangle** tool and drag it in the drawing area to draw a rectangle shape.



2. Now, click on **Line** tool and draw three tilted lines as shown in the figure.



3. Using the same selection, draw three straight lines as shown.



4. Click on the **Rectangle** tool to draw the door as shown in the drawn figure.



5. Now, draw a small circle above the door using **Oval** tool.

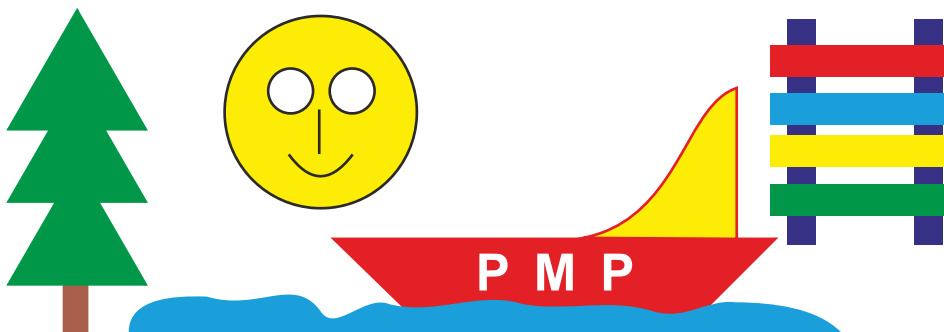


6. Now, color the door with **brown** and the circle with **red** color using Fill with color tool.

Skill Formation

This multi-step direction activity enhances the cognitive skills of the students.

B. Draw the following figure using different tools and shapes in Paint.



Skill Formation

This activity promotes creativity and innovation of the students and aids in developing fine motor skills.

Worksheet-I

Chapters 1 - 4

A. Tick [✓] the correct answer.

1. Natural things are created by
a. man ☐ b. animal ☐ c. nature ☐
2. controls all the parts of computer.
a. Keyboard ☐ b. Mouse ☐ c. CPU ☐
3. You can listen to on a computer.
a. songs ☐ b. sums ☐ c. colors ☐
4. Function keys are located on the row of the keyboard.
a. lower ☐ b. middle ☐ c. topmost ☐
5. contains different groups.
a. Canvas ☐ b. Tab ☐ c. Ribbon ☐

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

1. A computer works very slow.
2. Mouse has two buttons and a scroll wheel.
3. Computers cannot be used for playing games.
4. Oval tool is used to delete a drawing.
5. In Paint, you can make a curve from Curve tool.

C. Fill in the boxes.

1. Laptop is an EERN machine.
2. You can search any information using ITRT.
3. You can TP your name on the computer.
4. PLGN tool is used to make a shape with any number of sides.

5

Data and Memory

OBJECTIVES

After completing this chapter, you will be able to:

- Know how a computer works.
- Understand the concept of data and information.
- Understand the need of memory in a computer.
- Understand the difference between human memory and computer memory.



Hi Friends! After having fun with Paint, now you will learn how a computer works.

How Computer Works?

In school, when your teacher gives certain instructions like open your notebook, draw a line, etc., you follow them.



Similarly, the computer also needs some kind of instructions from you to work. The instructions given by you to a computer are in the form of **data**.

Computer follows those instructions, processes them and shows you the final result. The final work done by the computer is in the form of **information**.



You have learnt that to work with a computer, you need to give it some kind of data and instructions to get information. Let us understand it.

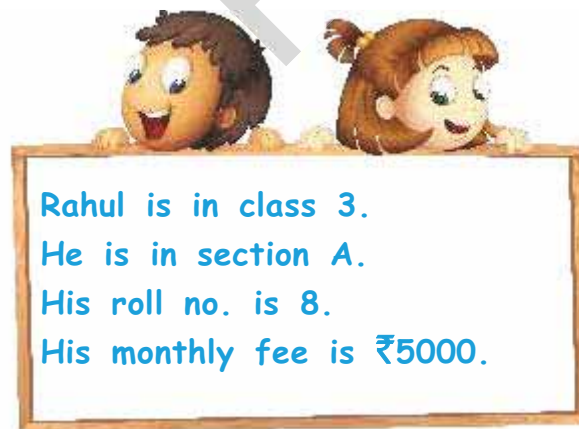


DATA AND INFORMATION

Data is a collection of unorganized words, numbers and images. For example:



Information is the meaningful and organized form of data. Given below is the information based on the data given above.



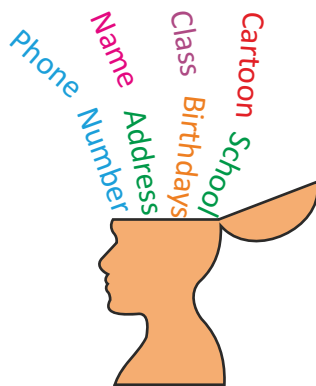
The main work of a computer is to accept **data** from you and convert that data into **information**. Finally, it stores that information in its **memory**.



Memory

You remember your name, address, contact number, etc. because this information is stored in your **memory** (brain).

Similarly, computer can also remember the data and information by storing them in its **memory**. Computer has a larger memory than humans and does not forget anything.



Human Memory



Computer Memory

In a Nutshell

- Computer takes instructions from us in the form of data.
- Data is a collection of unorganized words, numbers and images.
- Information is the meaningful and organized form of data.
- A computer remembers the data and information by storing them in its memory.



Exercises

A. Tick [✓] the correct answer.

- is a collection of unorganized words.
a. Data ☐ b. Memory ☐ c. Information ☐
- has a larger memory than humans.
a. Computer ☐ b. Table ☐ c. Microwave ☐

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

1. Data is used to store information in a computer.
2. Information is the final work done by the computer.
3. A computer does not forget anything.

C. Fill in the blanks after unscrambling the letters.

1. Organized form of data

R F A I O M N I T N O




2. Used to remember things

R M M O Y E

Activity Section

Lab Activity

Open the Educational Suite GCompris [].

1. Click on 123 [].
2. Click on Measures [].
3. Choose the game Calendar [].

Skill Formation

This memory game promotes critical thinking, concentration and attention.



PLAYING METHOD

Read the instruction, select the correct date on calender and then validate your answer by clicking on the OK button.

6

Tux Paint – Introduction

OBJECTIVES

After completing this chapter, you will be able to:

- Make drawings in the computer using Tux Paint.
- Know various components of Tux Paint.
- Use different tools to draw and color in Tux Paint.
- Open, Save and Quit Tux Paint.

Hi Kids! We will now work with another interesting and colorful drawing program, Tux Paint.



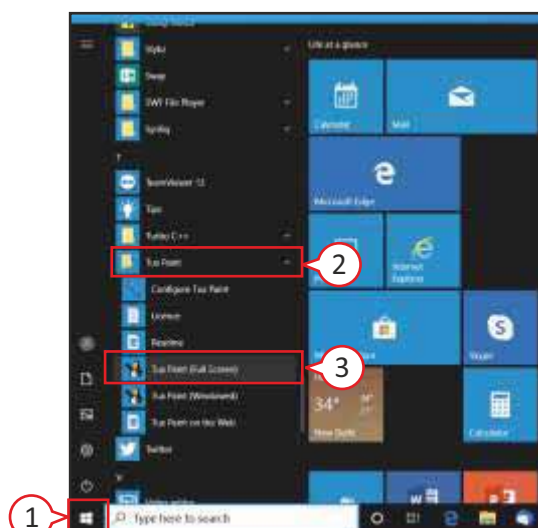
Tux Paint

Tux Paint is a free drawing and colouring program. It is used to make colorful drawings with the help of different tools present in it.



STARTING TUX PAINT PROGRAM

To start Tux Paint, follow the steps given below.



1. Click on **Start** icon.

The Start menu appears.

A list of all programs appears on the left. Scroll down to see **Tux Paint**.

2. Click on **Tux Paint**.

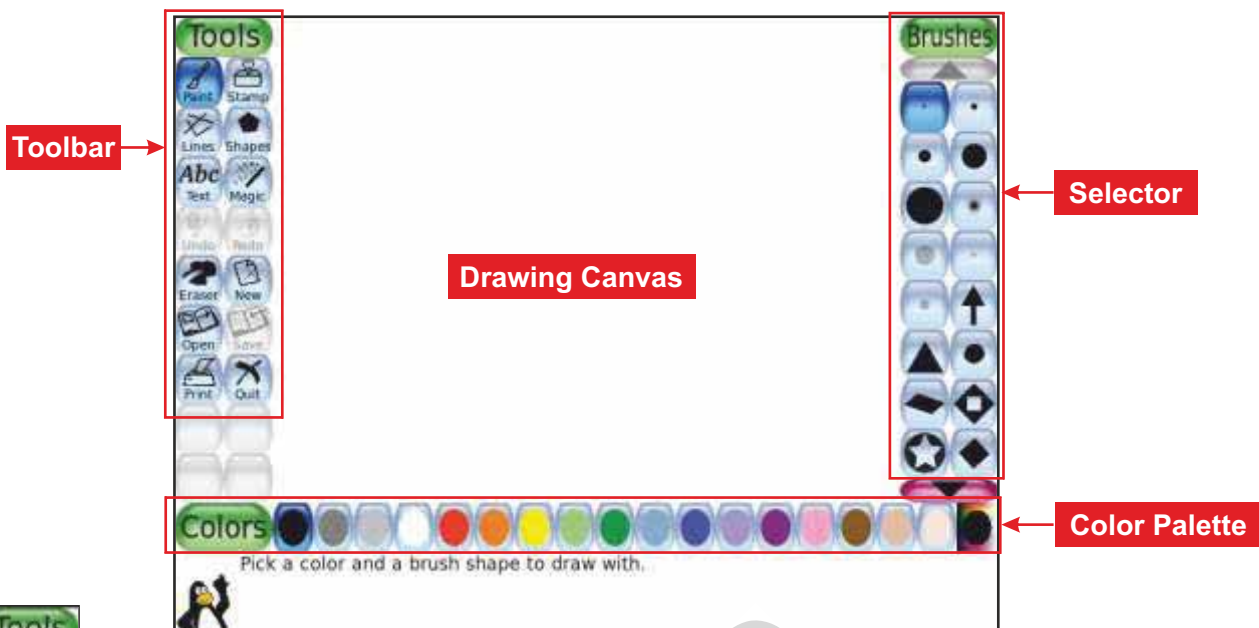
A sub-menu appears.

3. Click on **Tux Paint (Full Screen)**.

The **Tux Paint** program opens. You can now start working on it.

COMPONENTS OF TUX PAINT WINDOW

After opening Tux Paint, you get the following window.



Toolbar

The **toolbar** contains all the drawing and editing tools.

Drawing Canvas

It is the largest part of the screen where you draw.

Selector

Depending on the selected tool, the **selector** shows different options to choose from.

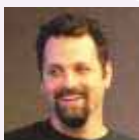
Color Palette

Color Palette helps you select and fill colors in your drawing.



Update Your Knowledge

Tux Paint was first created by **Bill Kendrick** for the Linux operating system. Now, it is available for Microsoft Windows, Apple Mac OS X and other platforms.



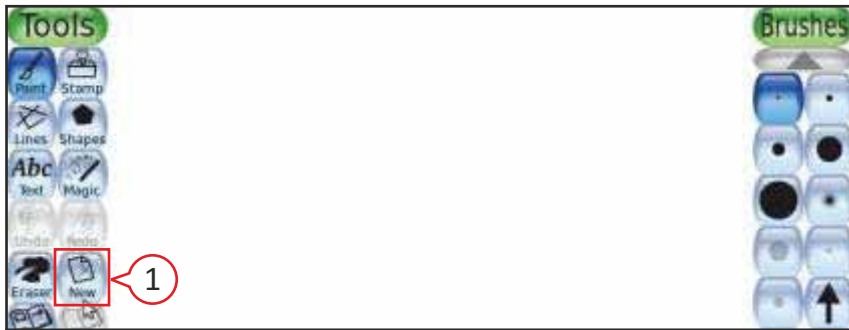
Update Your Knowledge

A cartoon version of Tux, the **Linux penguin**, appears at the bottom to give tips, hints, and other information.

Using Toolbar

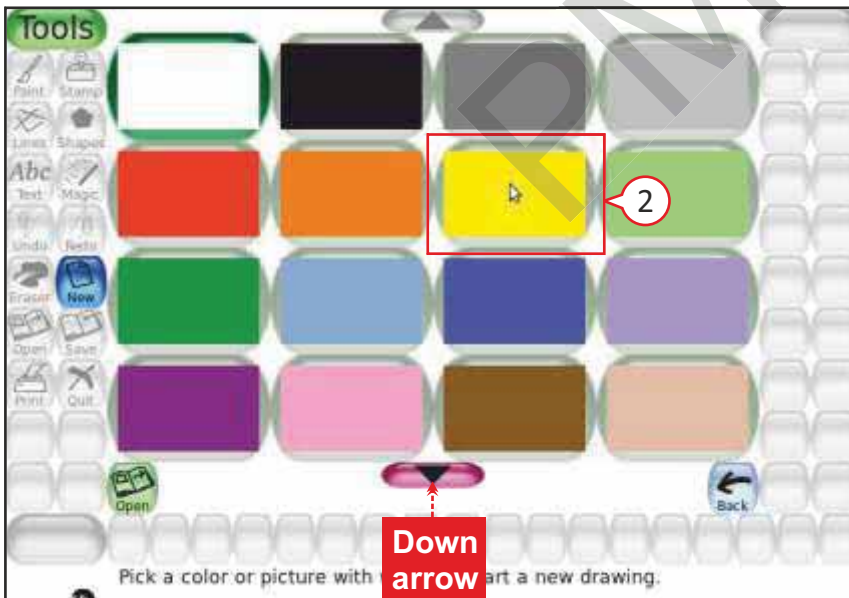
NEW TOOL

New tool is used to start a new drawing. To open a new drawing, follow the given steps.



1. Click on **New** tool from the toolbar.

The **color boxes** and **starter images** appear to start a new drawing. (To see more color boxes or ready-made images and backgrounds, click the **down arrow**  key.)



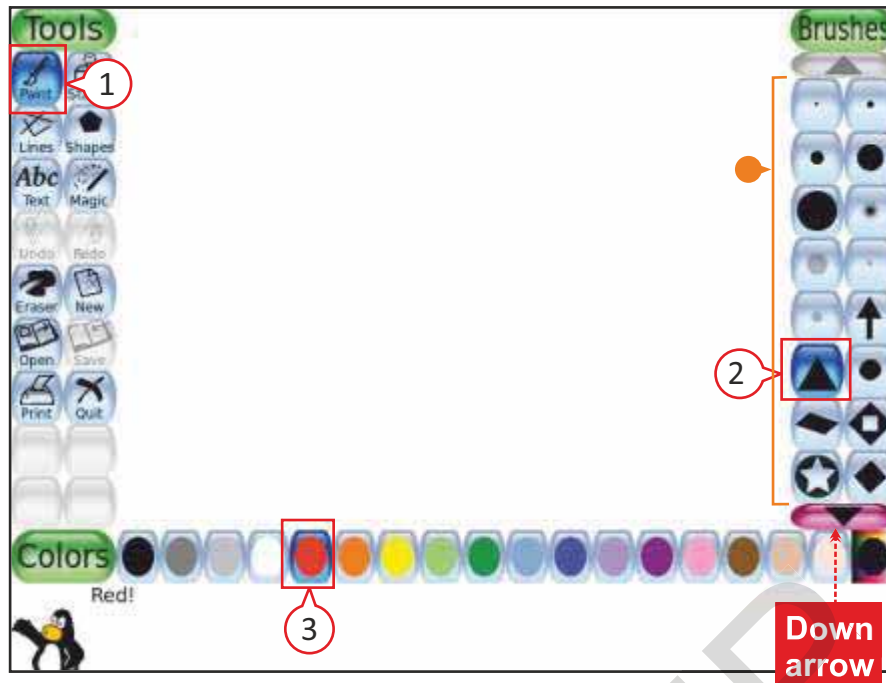
2. Double-click on any **color box** or **ready-made image** to make it appear on the drawing canvas.



The selected color or image appears on the drawing canvas.

PAINT TOOL

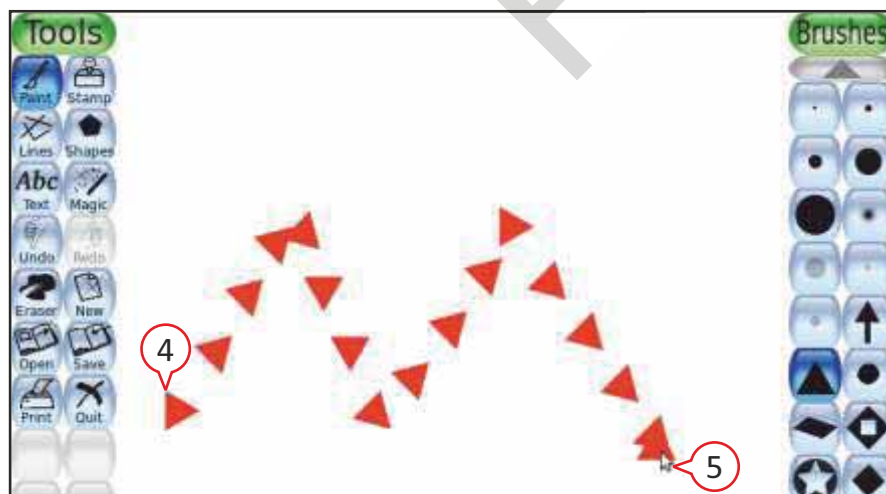
Paint tool is used to draw freehand drawing of your choice.



1. Click on **Paint** tool from the toolbar.
 - Different brushes appear in the **selector**.
2. Click on the **Brush pattern** of your choice from the selector.

You can click on the **down arrow**  of the **selector** to see more **Brush patterns**.

3. Click on any color from the **Color Palette**.



4. Now, drag the mouse to make the drawing.

You will see the pattern drawn.
5. Release the mouse when finished.

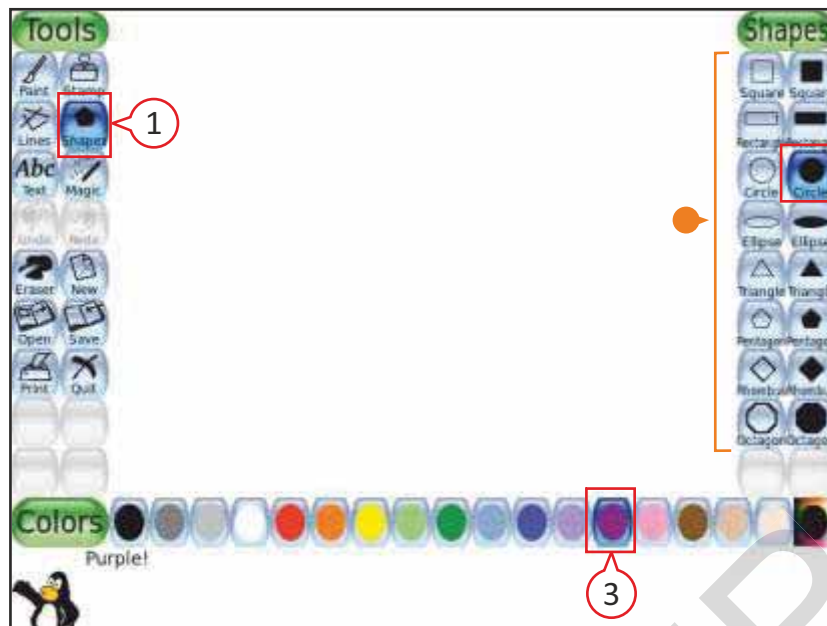
Draw Yourself

By using the above steps, you can draw different patterns.



SHAPES TOOL

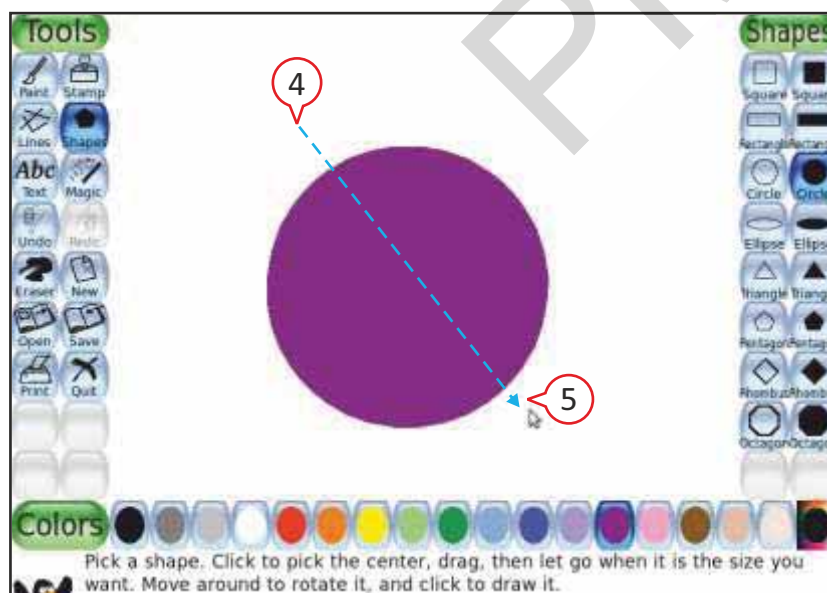
Shapes tool is used to draw different **filled** or **unfilled** shapes like circle, triangle, square, etc.



1. Click on **Shapes** tool from the toolbar.
2. Click on any desired **Shape** from the selector.

*In this example, we have selected **filled circle** shape.*

3. Click on any color from the **Color Palette**.



4. On the canvas, drag the mouse to make the shape.
You will see the shape drawn.
5. Release the mouse when finished.

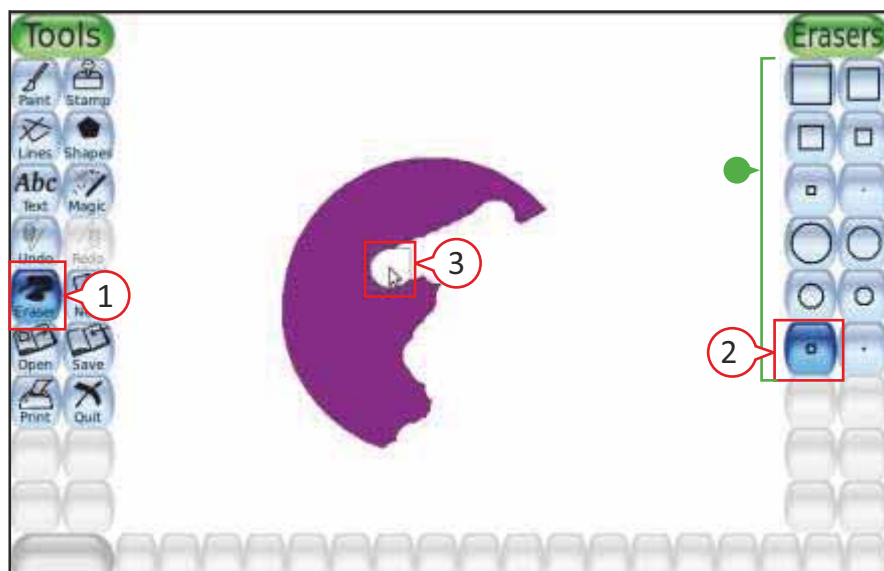
Draw Yourself

By using the above steps, you can draw different shapes.



ERASER TOOL

Eraser tool is used to erase any part of the drawing.

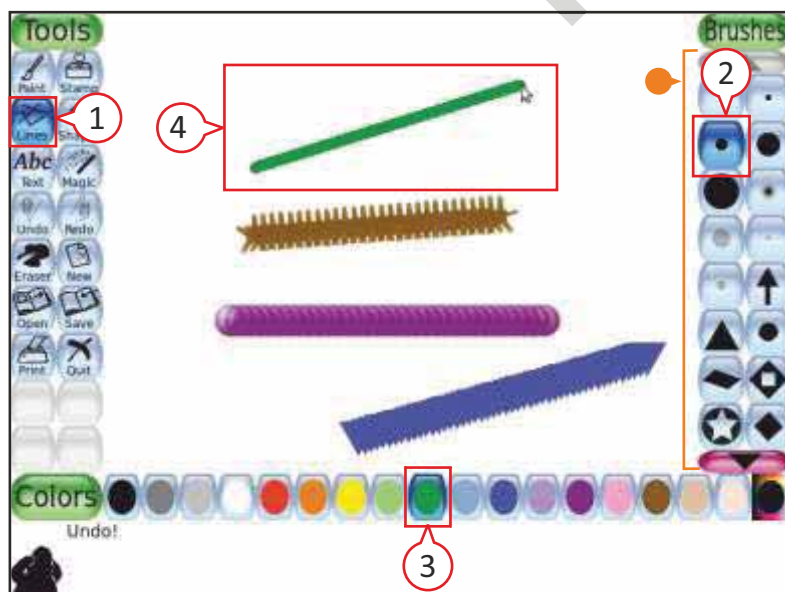


1. Click on **Eraser** tool.
2. Click on any desired **Shape** from the selector.

3. Drag the mouse on that part of your drawing which you want to erase.

LINES TOOL

Lines tool is used to draw straight lines.



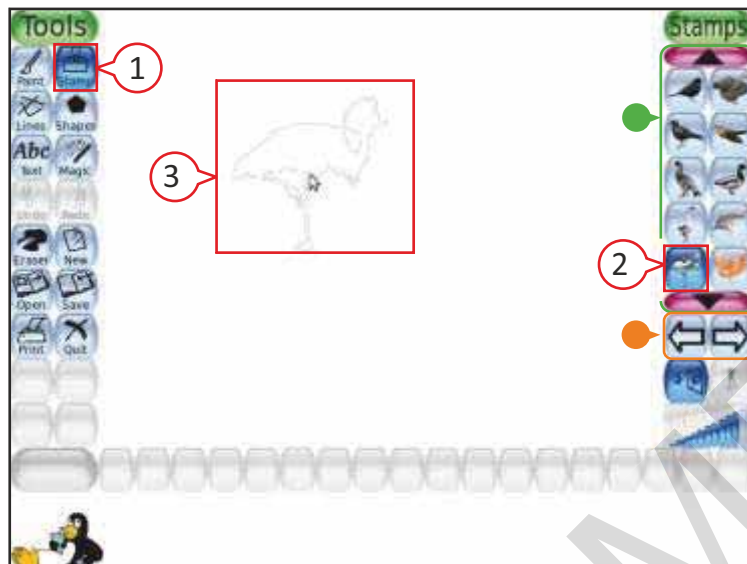
1. Click on **Lines** tool.
2. Click on the desired **brush**.
3. Click on any color from the **Color Palette**.

4. Press the left mouse button and drag it to make a line.


STAMP TOOL


Stamp tool is like a **rubber stamp** or a **sticker**. It is used to paste a pre-drawn picture, such as the picture of a cat, a flower, or a bird, on your drawing canvas.

Note: You need to install stamps from the official website of Tux Paint (www.tuxpaint.org) before working with stamp tool.



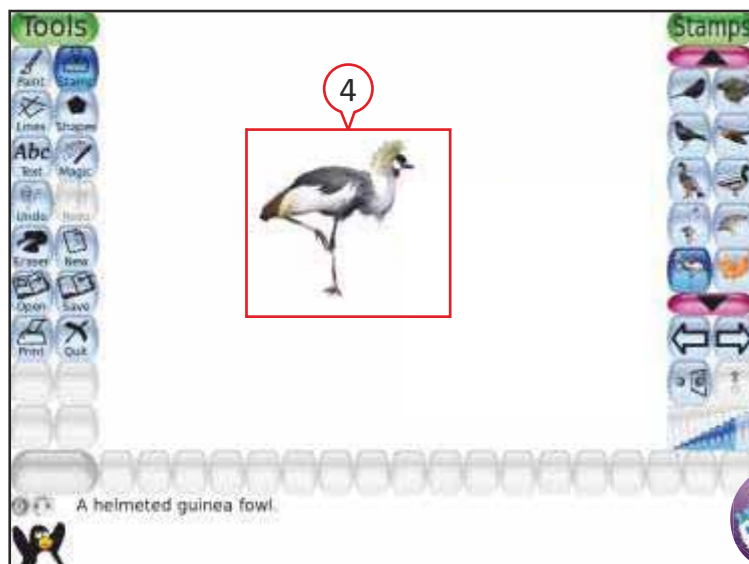
1. Click on **Stamp** tool.

- A list of stamps appears in the **selector**. You can click **arrows** [] to see more stamps.

- You can also click these **arrows** [] to see more categories of stamps like animals, birds, etc.

2. Click on any desired **stamp** from the selector.

3. Move your mouse on the canvas. An outline of the stamp follows the movement of mouse, showing where the stamp will be placed and how big it will be.



4. Click anywhere on the drawing canvas to place the selected stamp.

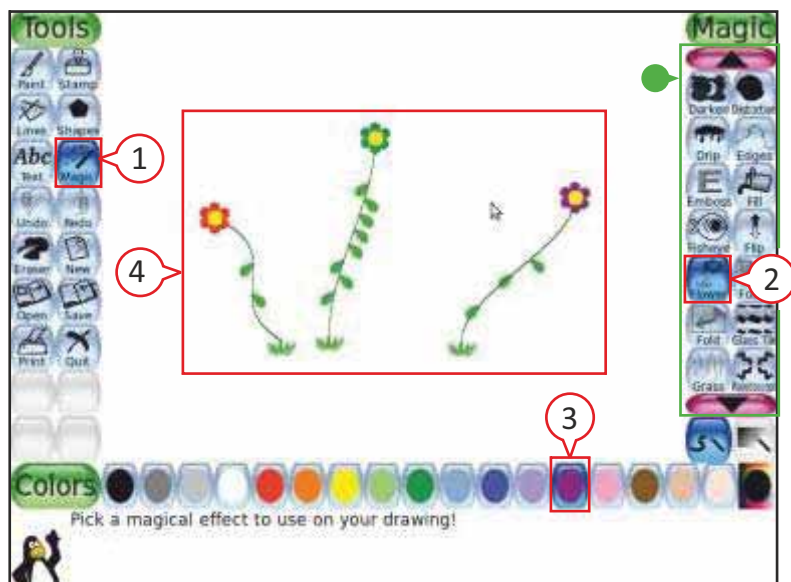


Update Your Knowledge

You can place multiple images of the same stamp or different stamps on the canvas.

MAGIC TOOL

Magic tool is used to add special effects to the drawing.



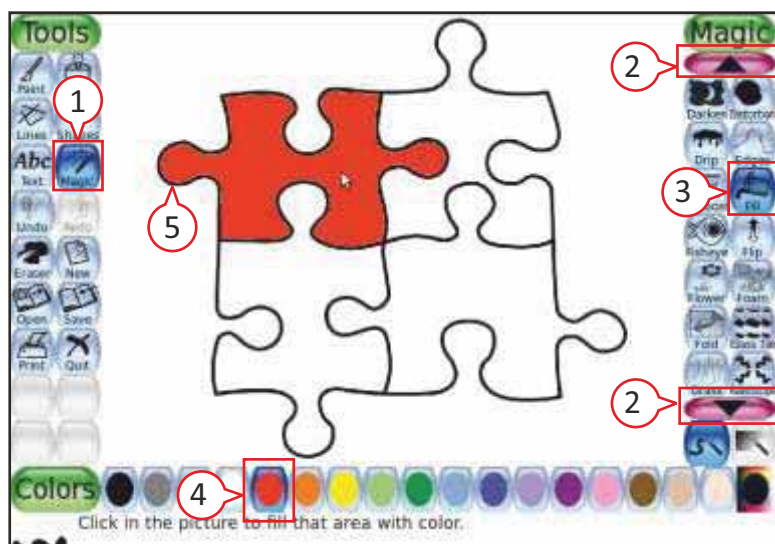
1. Click on **Magic** tool.
- A list of Magic tools appears in the **selector**.
2. Click on a Magic tool from the selector.
3. Click on any desired color from the **Color Palette**.

4. Now, depending on the selected Magic tool, you can either **click and drag**, or **simply click** the picture once.

The magic effect will be applied.

FILL BUTTON

Fill button is used to fill color in any closed shape. It is not available in the main toolbar. You must click on the **Magic** tool first.

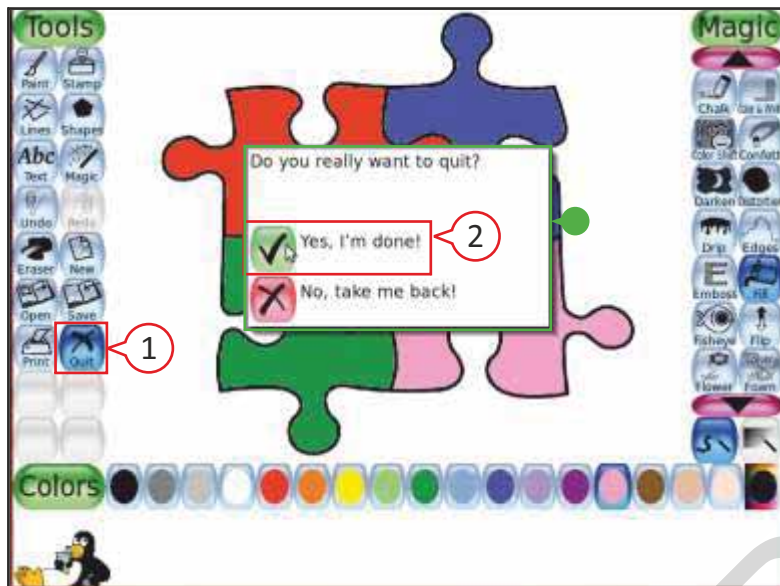


1. Click on **Magic** tool.
- A list of magic tools appears in **selector**.
2. Click on **arrows**  to find **Fill** button.
3. Click on **Fill** button.
4. Click on any color from **Color Palette**.

5. Take the mouse pointer inside the shape and click on it.
- The color will be filled.

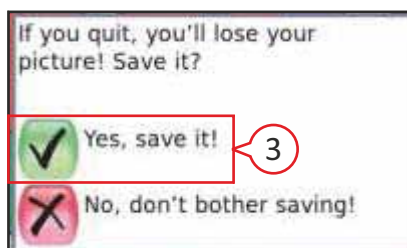
Quit Tool

After finishing your work, you must quit the program.



1. Click on **Quit** tool.
 - A box appears which asks you whether you really want to quit or stay in the program.
2. Click on **'Yes, I'm done!'** button.

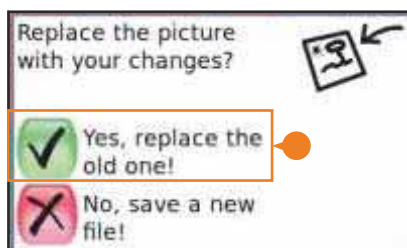
If you click on **'Yes, I'm done!'** button and you have not saved the current image, one more box appears which asks you whether you want to save the image or not.



3. Click on **'Yes, save it!'** button.

If it is a new image, then Tux Paint saves the image and quits.

If it is not a new image or already a saved image, a new box appears which asks you whether you want to replace the old one or create a new file.



- Click on **'Yes, replace the old one!'** button.

Tux Paint replaces the image and quits.

In a Nutshell

- Tux Paint is used to make colorful drawings with the help of different tools.
- The New tool is used to start a new drawing.
- Toolbar contains Paint tool, Shapes tool, Eraser tool, Lines tool, Stamp tool and Magic tool.
- Fill button is used to fill color in any closed shape.
- After finishing our work, we must quit the program.



Exercises

A. Tick [✓] the correct answer.

- is a free drawing and coloring program.
a. Tux Paint ☐ b. MS-Word ☐ c. WordPad ☐
- tool is used to draw different filled or unfilled shapes.
a. Paint ☐ b. Shapes ☐ c. Magic ☐
- tool is used to paste pre-drawn images on canvas.
a. Lines ☐ b. New ☐ c. Stamp ☐
- Fill button is present in the tool.
a. Paint ☐ b. Text ☐ c. Magic ☐

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

- Toolbar contains all the drawing and editing tools. ☐
- Paint tool is used to draw shapes. ☐
- Lines tool is used to make freehand drawings. ☐
- Quit tool is used to close the program. ☐

C. Match the names of the tools with their pictures correctly.



PAINT TOOL
SHAPES TOOL
FILL BUTTON
STAMP TOOL
MAGIC TOOL
LINES TOOL



D. Fill in the boxes.

1.

D		A		I		G
---	--	---	--	---	--	---

 canvas is the largest part of the screen where you draw.
2. The

S		L		C		O
---	--	---	--	---	--	---

 shows different options, depending on the selected tool.
3.

M		G		C
---	--	---	--	---

 tool is used to add special effects.
4.

F		L	
---	--	---	--

 button is used to fill color in any closed shape.

E. Answer the following questions.

1. What is Tux Paint?

2. What is the use of Shapes tool?

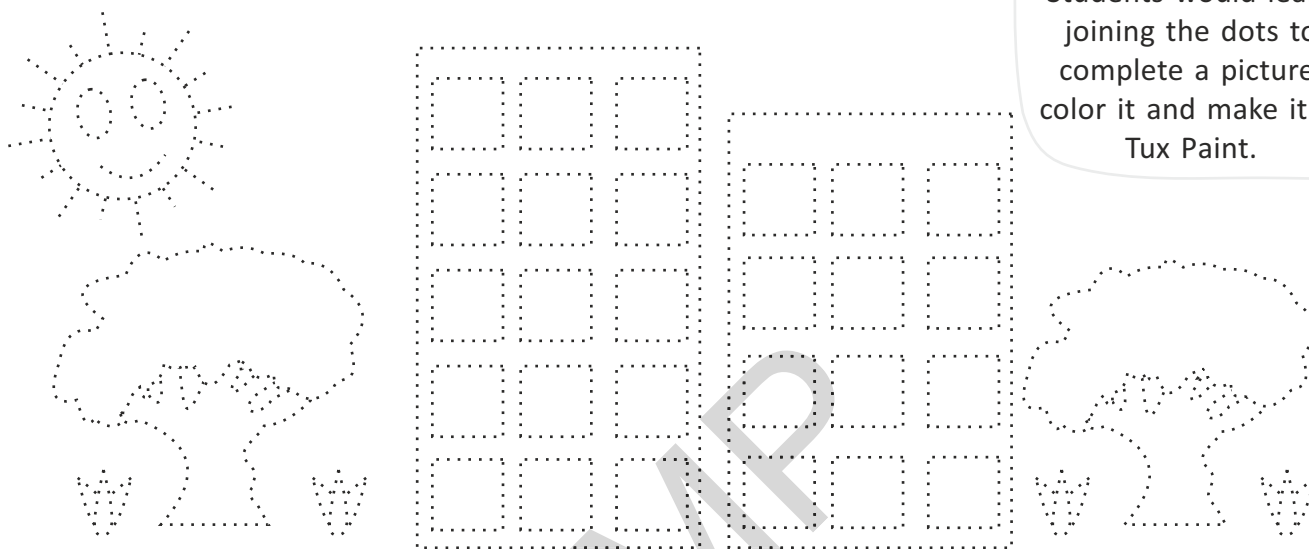
F. Application-based Question

In Tux Paint, Yash wants to draw a scene of jungle full of birds, animals and plants. Which tool should he use?

Activity Section

Activity Draw and Color

Join the dots to complete the picture given below and color it. Draw the similar picture in Tux Paint.



Skill Formation

This activity helps the students improve their fine motor skills and concentration power.

Art Integration

Students would learn joining the dots to complete a picture, color it and make it in Tux Paint.

Lab Activity

Draw the same picture in Tux Paint, using different tools.



Skill Formation

This lab activity promotes creativity and innovation of the students.

Patterns and Puzzles

OBJECTIVES

After completing this chapter, you will be able to:

- Understand and identify the patterns around us.
- Break down a task into smaller parts.
- Arrange objects or data in a particular order.

Hi Friends! Let us enhance your creativity and problem-solving skills through repetitive patterns and puzzles.



Pattern

Patterns are created when figures or shapes are arranged in a design. They are repeated over and over again.

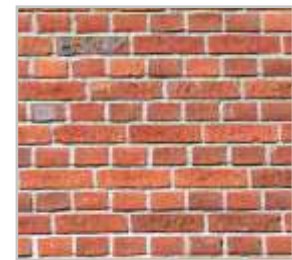
There are different types of patterns. Here are some examples.



Rangoli



Black and white
strips of zebra



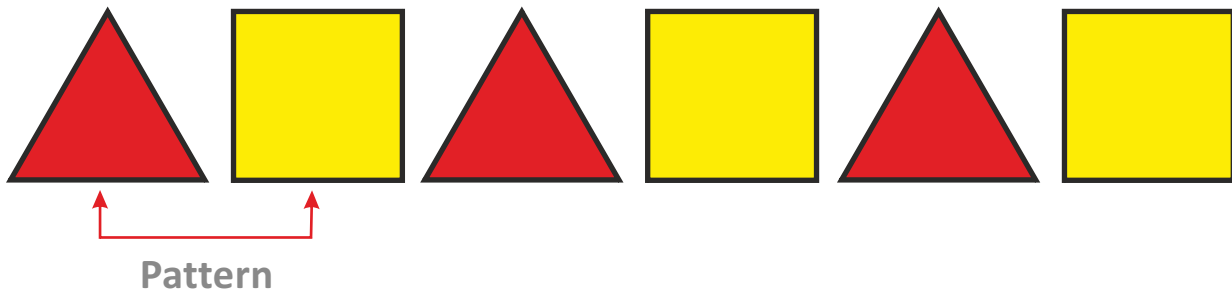
Bricks of wall

Design is the repetition of patterns of colors, shapes and lines.



Understanding the patterns helps you enhance your awareness about lines, shapes, numbers and colors.

Now, check the following design and observe the pattern.



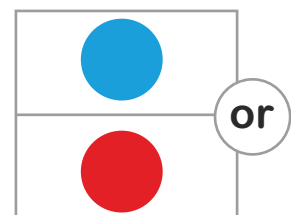
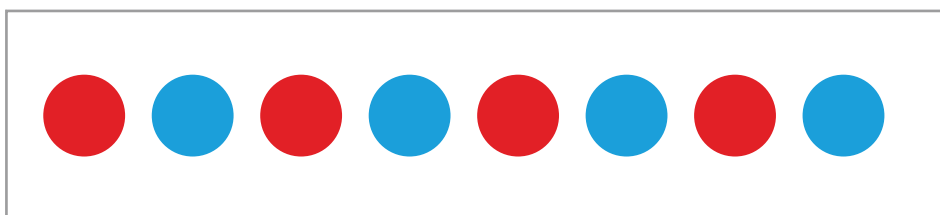
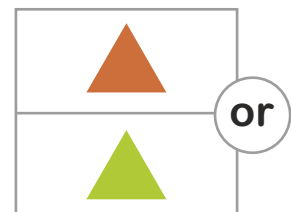
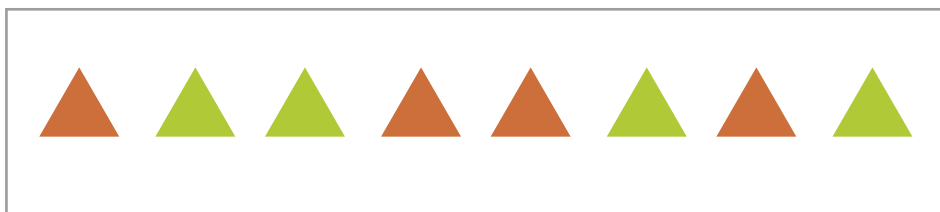
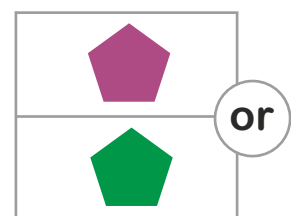
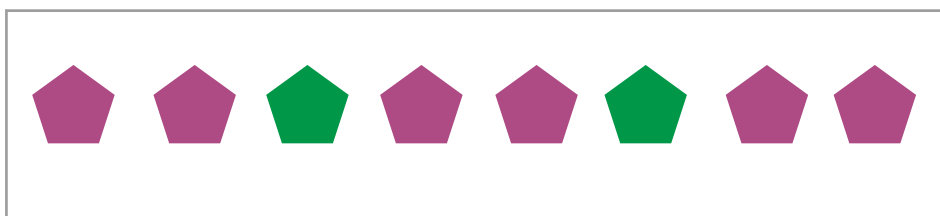
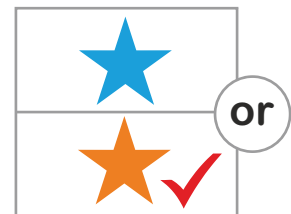
Here, you can see a **red triangle**, followed by a **yellow square** in repeat order. It leads to the formation of pattern.

Activity Identify

IDENTIFY THE COLOR PATTERN

What comes next?

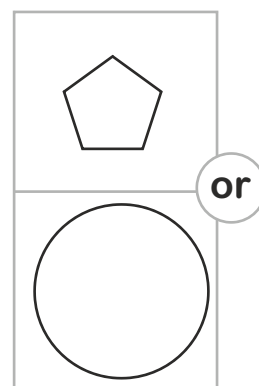
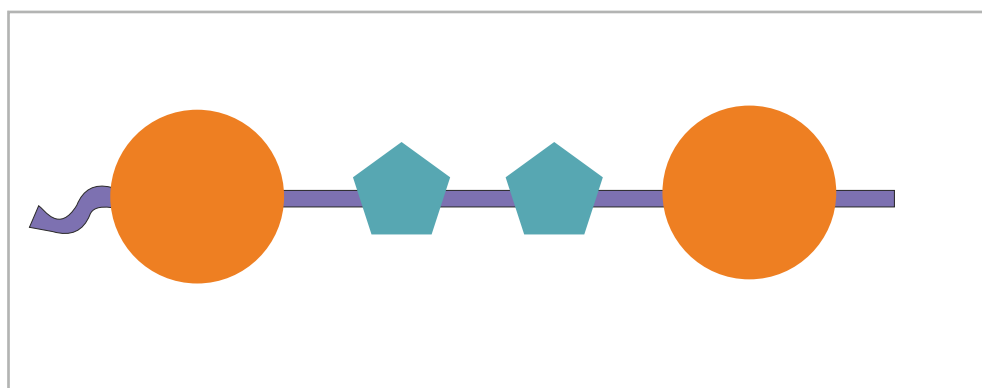
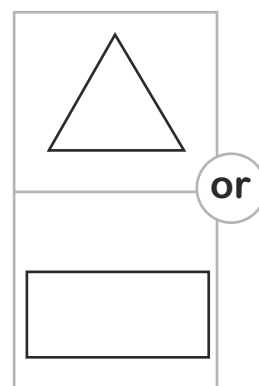
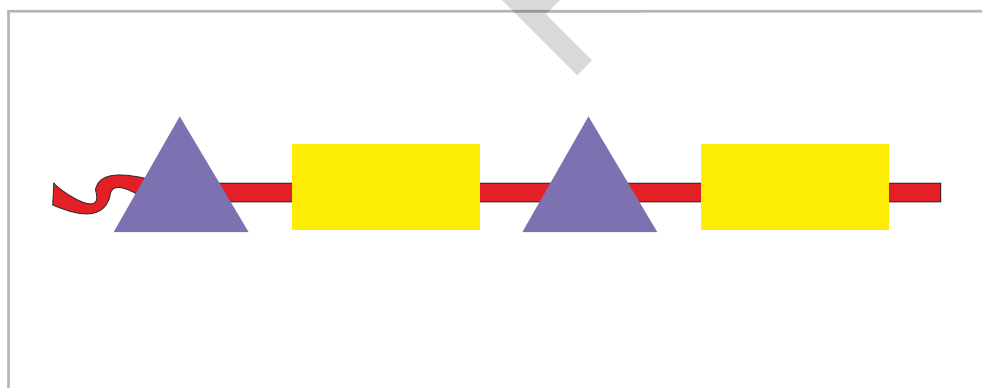
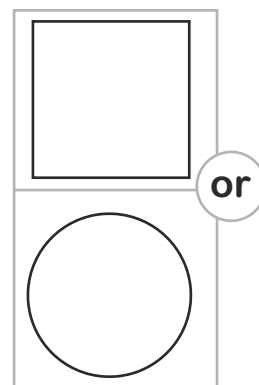
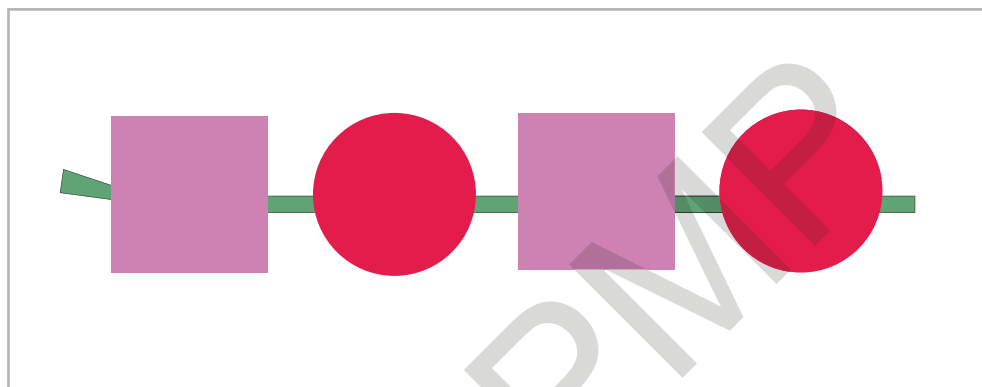
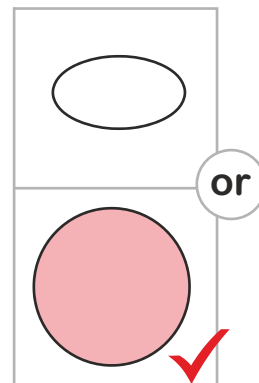
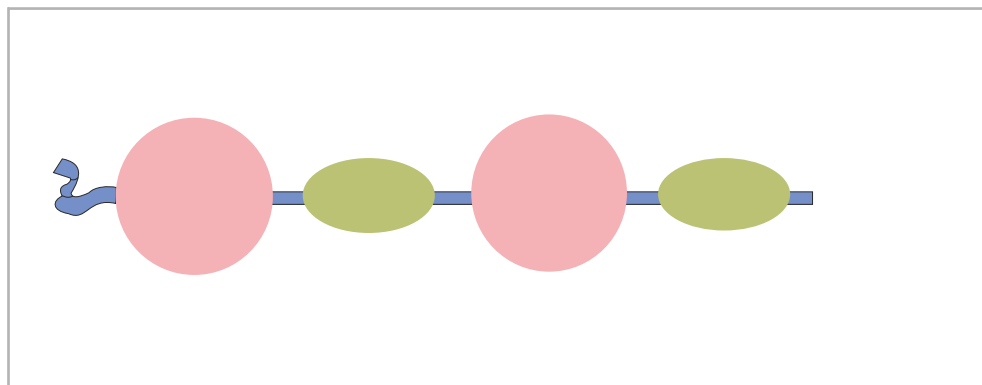
Tick (✓) the correct color. One has been done for you.



IDENTIFY THE SHAPE PATTERN

What comes next?

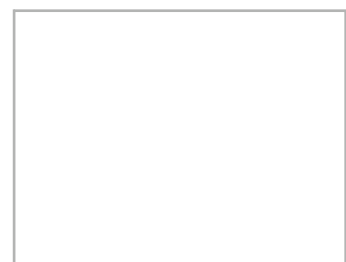
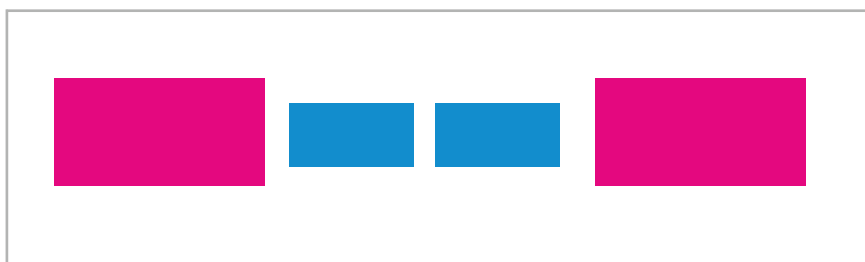
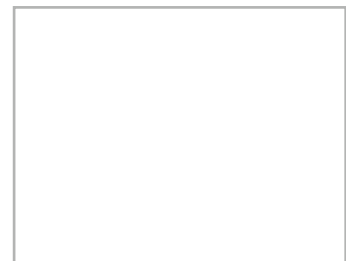
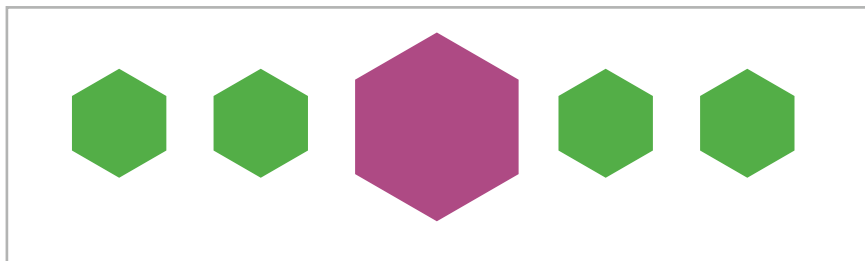
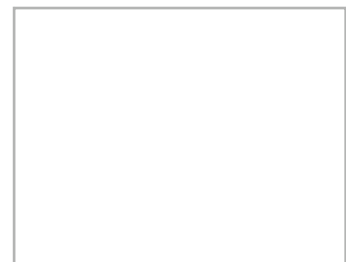
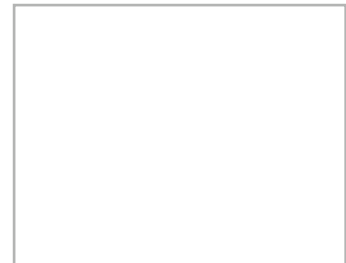
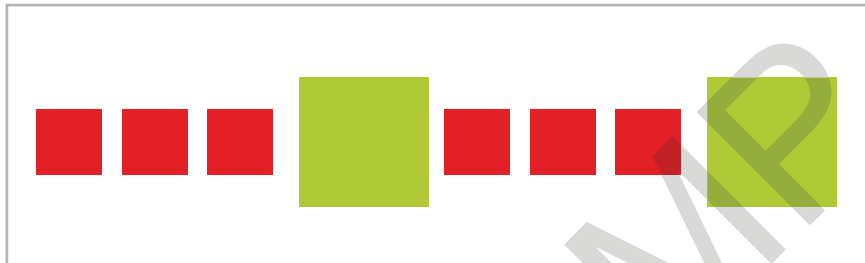
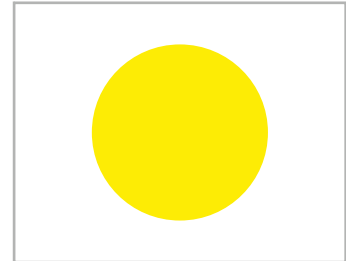
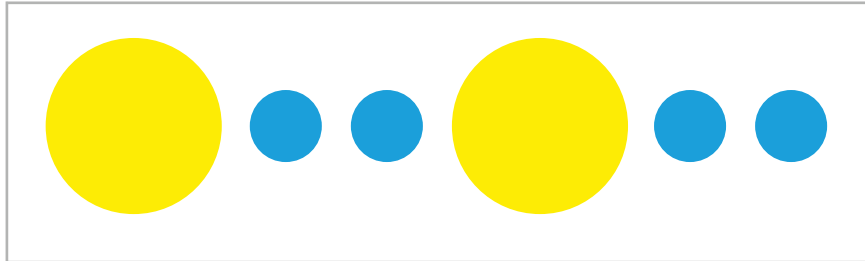
Identify and color the shape that comes next.
One has been done for you.



IDENTIFY THE SIZE PATTERN

What comes next?

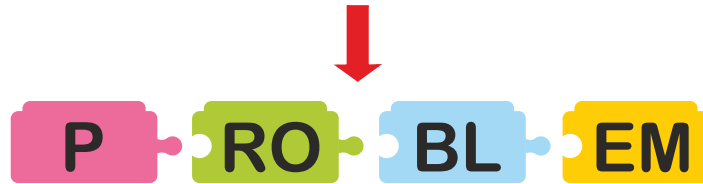
Draw and color the shape and size that comes next. One has been done for you.



Decomposition

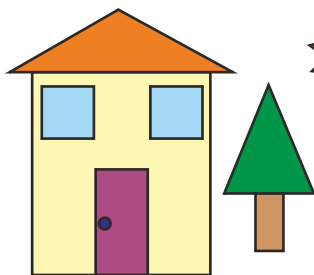
Decomposition means breaking up of a problem into smaller parts. Decomposition of a problem makes it easy to solve.

PROBLEM



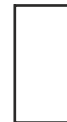
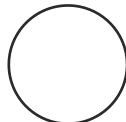
Children! You must have seen a picture made up of different shapes such as triangles, squares and circles. Let us understand how to draw the following using different shapes.

Here, we have a picture (house, sun and tree) which is made up of shapes only.



Let us decompose this picture into the shapes it is made up of.

The picture can be decomposed into the following shapes. Count and write the numbers of given shapes.



It is easy to draw the picture using these shapes. This is how decomposition helps us solve a problem.



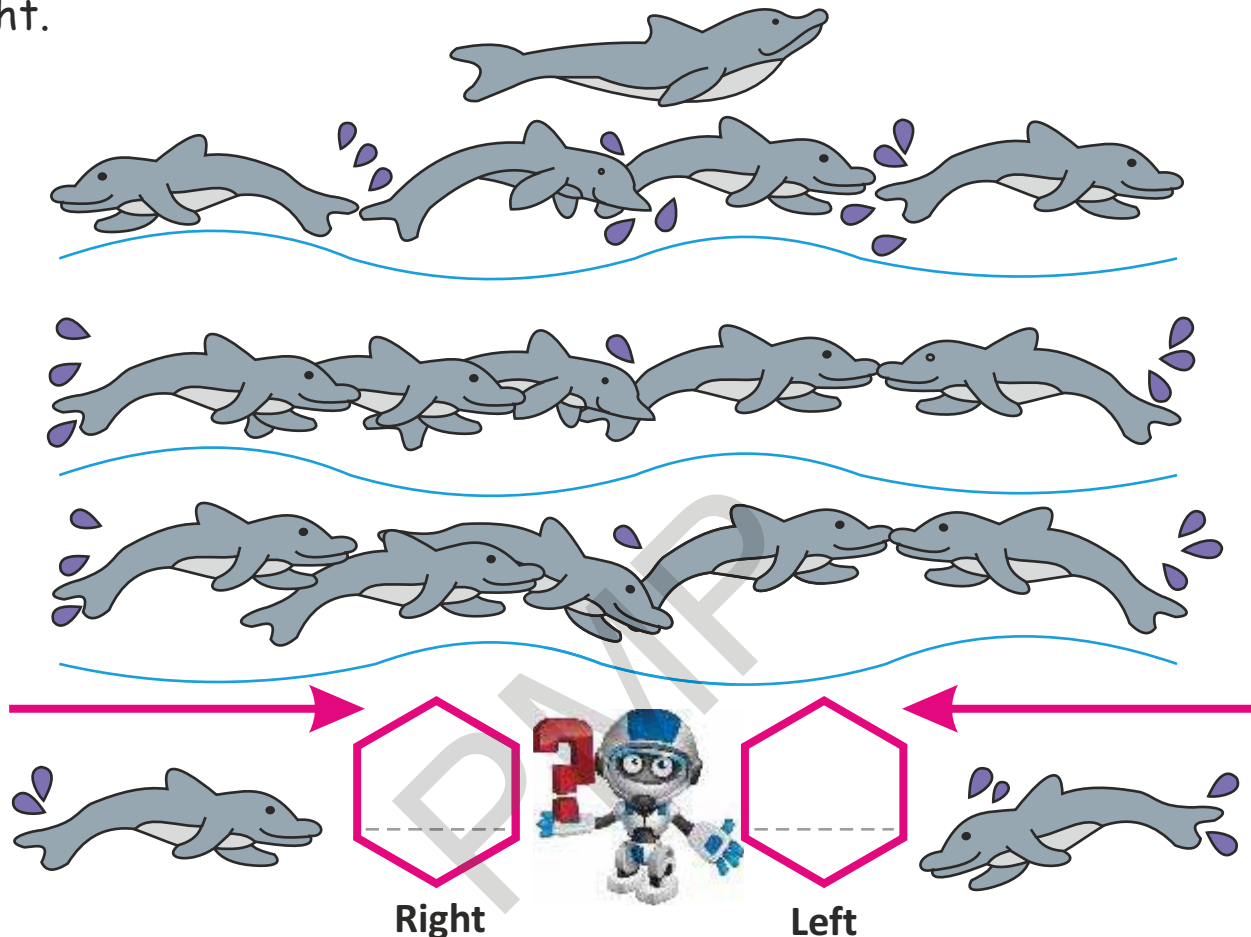
Decomposition makes your work easy and simple.

Activity Decomposition



HOW MANY?

Count and write how many fish are facing left and how many right.



Arranging

Placing a group of things at a proper place or in a particular order is called **arranging**.

Let us understand it with the following picture.

As you can see, everything is kept in a proper order. For example, all the shoes are put at the bottom-right corner and coats are hung on the left.

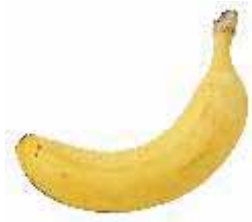


Arranging things makes it easy for us to locate them in future.

Activity Arranging

FRUITS IN THE BASKET

Match the fruits with the baskets of same color.



Red basket



Green basket



Yellow basket



NUMBER 1 to 10

Match the empty circles with numbers in the correct order from 1 to 10.



2

7

4

3

9

8



In a Nutshell

- Patterns are created when figures are arranged in a design.
- Design is repetition of patterns of colors, shapes and lines.
- Decomposition of a problem makes it easy to solve.
- Placing a group of things in a proper place or in a particular order is called arranging.



Exercises

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

1. Patterns do not repeat over and over again.
2. Decomposition means breaking up of a problem into smaller parts.
3. Arranging things makes them look tidy.

B. Fill in the boxes.

1.

P		T		E		N	
---	--	---	--	---	--	---	--

 are created when figures or shapes are arranged in a design.
2. The repetition of patterns of colors, shapes and lines form a

D		S		G	
---	--	---	--	---	--

.
3. Decomposition of a problem makes it easy to




S		L		E
---	--	---	--	---

.

Activity Section

Lab Activity

Open the Educational Suite GCompris [].

1. Click on Penguin icon [].
2. Click on Logic [].
3. Choose the Logical Associations [].



Skill Formation

This pattern-based lab activity helps enhance the computational thinking in the students.

PLAYING METHOD

Look at the two sequences. Each fruit in the first sequence has been replaced by another fruit in the second sequence. Complete the second sequence by using the correct fruit after studying the pattern.

Let's Draw with AI

OBJECTIVES

After completing this chapter, you will be able to:

- Learn about the terms 'Artificial' and 'Intelligence'.
- Understand about AI.
- Create drawing using AutoDraw.







Hi Kids! Today's computer has been transformed into a smart machine, called Artificial Intelligence, (AI) which copies human behaviour. Do you know how? Let us begin an exciting journey of AI.





Artificial

Artificial things are made or produced by **human beings**. These things are not found **naturally**.

In other words, artificial things are the **copy** of natural things.

DIFFERENCE BETWEEN NATURAL AND ARTIFICIAL THINGS

NATURAL	ARTIFICIAL
1 	
2 	

NATURAL	ARTIFICIAL
3 	
4 	

Intelligence

Intelligence is the ability to think, learn from past experience and act according to a situation.

You become intelligent when you start doing correct things by yourself. Let us understand it with the help of an example.

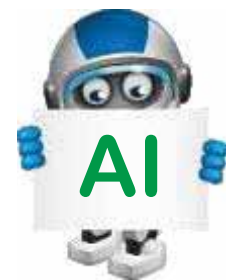
As soon as you **touch** a **hot iron**, you will yank your hand away immediately. When this happens to you for the first time, the event and the result (the burning of your hand) gets stored in your brain. This is called an **experience**.



When you see a hot iron next time, your intelligence will decide not to touch it based on your past experience.

Artificial Intelligence (AI)

Artificial Intelligence is a way of making a computer, a robot or a machine think intelligently like humans.



Imagine a car without a driver that drops you to school, says, "Good bye" to you and comes back in the afternoon to pick you up from school.

Wouldn't that be great?

All this can be made possible by the technology called **Artificial Intelligence (AI)**.



Through **Artificial Intelligence (AI)**, a computer can play, talk and do many other things.

Let us see how AI helps you in doing things faster and accurately.

AI Lab

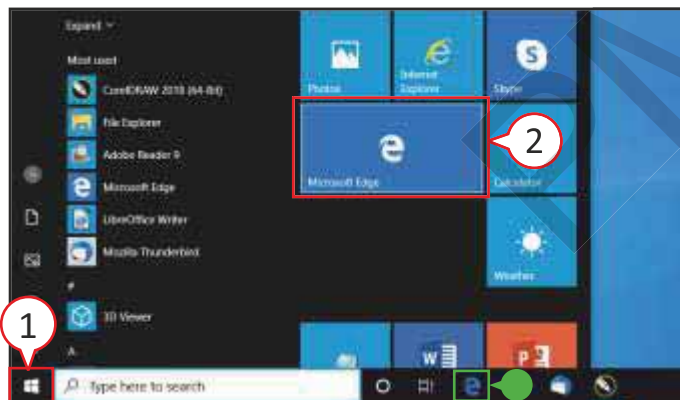
AUTODRAW

AutoDraw is a free online AI-based drawing program that transforms your rough drawing or sketch into meaningful images.



STARTING AUTODRAW

For using AutoDraw, you need a computer with Internet connection.

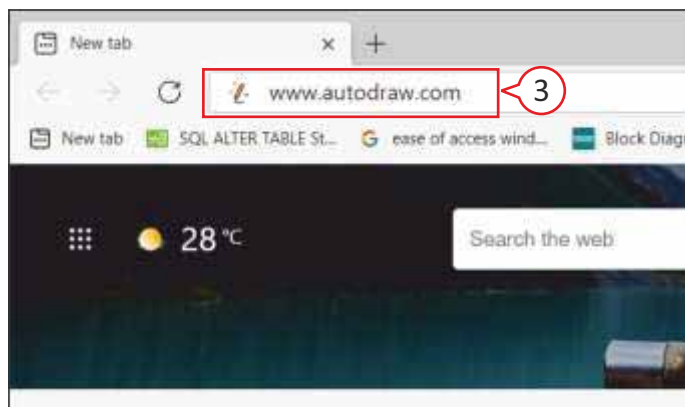


1. Click on **Start** icon to open Start menu.

2. Click on **Microsoft Edge**.

● You can also open Microsoft Edge by clicking on its icon on the **taskbar**.

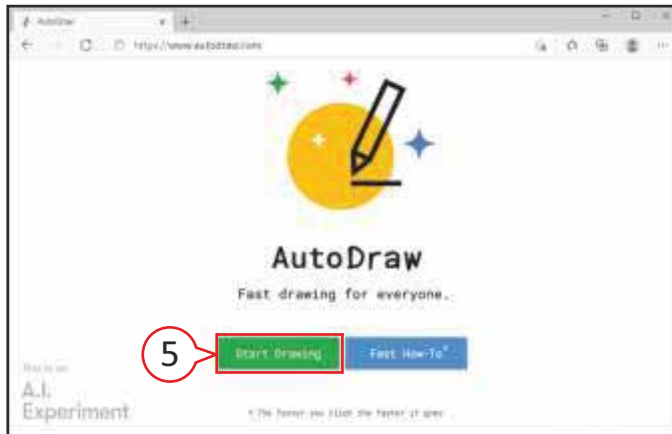
Microsoft Edge program appears.



3. Click on **address bar** and type **www.autodraw.com**

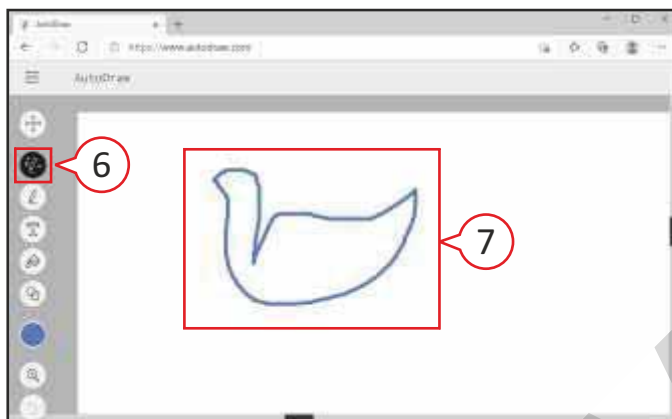
4. Press **Enter** key from the keyboard.

A.I. Experiment page of AutoDraw appears.



5. Click on **Start Drawing** button.

AutoDraw screen appears.



6. Click on **AutoDraw** button.

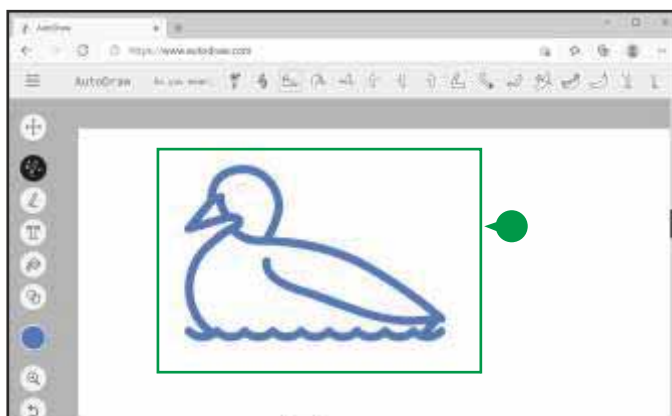
7. Draw any doodle, icon or shape with the mouse.

In this example, we have tried to make a duck.



- Now, **AI** observes your drawing and shows the small matching pictures on the top.

8. Click on the picture that you were trying to draw.



- Selected picture appears.

Art Integration

Students will learn to draw shapes and pictures from incomplete, raw sketches on the screen.

Skill Formation

- The ultimate goal of AutoDraw is to make your drawing skills better and show you how AI helps you in drawing quickly and accurately.

In a Nutshell

- Artificial things are the copy of natural things.
- Intelligence is the ability to think, learn from past experience and act according to a situation.
- Artificial Intelligence makes a machine think intelligently like humans.
- AutoDraw is an AI-based drawing program that changes rough drawings or sketches into meaningful images.



Exercises

A. Tick [✓] the correct answer.

- Artificial things are made by
a. nature ☐ b. human ☐ c. robots ☐
- You become when you start doing correct thing on your own.
a. young ☐ b. old ☐ c. intelligent ☐
- Through Intelligence, a computer can play, talk and do many other things.
a. Natural ☐ b. Simple ☐ c. Artificial ☐
- AutoDraw program transforms your rough drawing or sketch into meaningful
a. numbers ☐ b. images ☐ c. data ☐

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

- Artificial things are not found naturally. ☐
- You become ignorant when you start doing correct things by yourself. ☐
- AutoDraw is a free online program. ☐
- You do not need Internet connection to open AutoDraw. ☐

C. Fill in the boxes.

1. A T F C L things are made or produced by human beings.
2. I T L I E C is the ability to think, learn from experience and act accordingly.
3. AI makes a M C I E think intelligently like humans.
4. For starting AutoDraw, you need a computer with I T R E connection.

D. Application-based Question

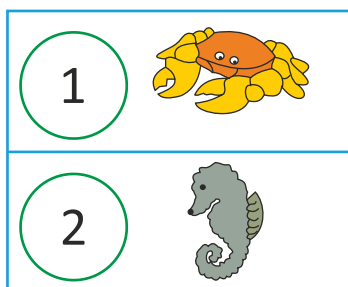
Rashmi is a teacher in a school. She needs to create coloring worksheets for the students, but her drawing is not so good. Which AI program should she use to prepare the worksheets?

Activity Section

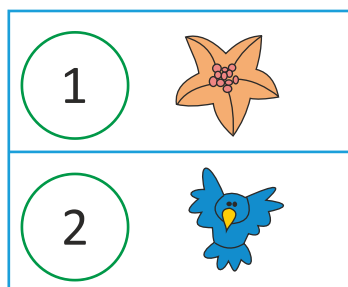
Activity Spatial Sense: Top and Bottom

Identify and color the correct circle.

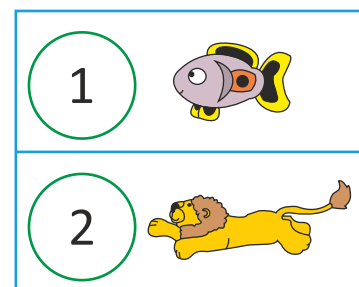
What is at the top?



What is at the bottom?



What is at the top?



Art Integration

Students will identify the object at the top or bottom and color its number.

Activity Marking

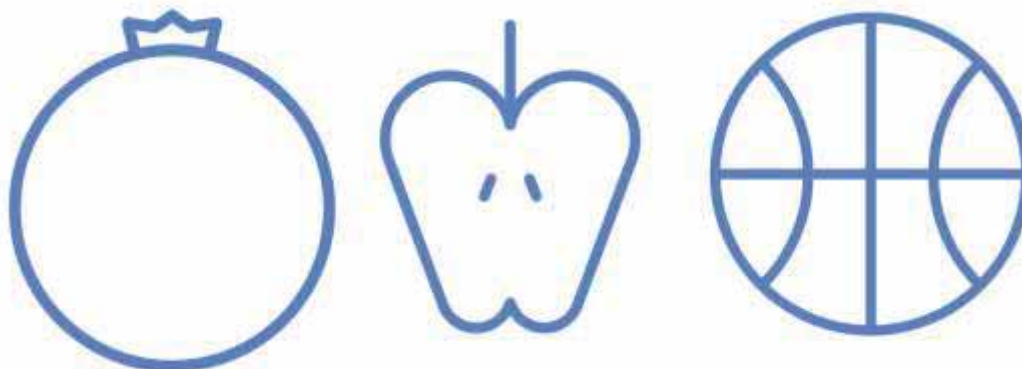
Mark the words given in the box in the word search puzzle. One has been done for you.

Fast Artificial **Natural** Internet Human AutoDraw

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

Lab Activity

- Give a demonstration of AutoDraw and familiarize the students with its different tools.
- Open AutoDraw and draw the following figures.



Skill Formation

- This activity enhances the cognitive and fine motor skills of students.

Worksheet-II

Chapters 5 - 8

A. Tick [✓] the correct answer.

1. Data is a collection of words, numbers and images.
a. simple ☐ b. organized ☐ c. unorganized ☐
2. tool is used to add special effects to the drawing.
a. Magic ☐ b. Stamp ☐ c. Shapes ☐
3. Arranging things makes them look
a. heavy ☐ b. tidy ☐ c. untidy ☐
4. You become when you start doing things correctly.
a. artificial ☐ b. natural ☐ c. intelligent ☐
5. is an AI-based drawing program.
a. Tux Paint ☐ b. AutoDraw ☐ c. MS Paint ☐

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

1. Computer has a larger memory than humans. ☐
2. Natural things are the copy of artificial things. ☐
3. Quit tool is used to close the program. ☐
4. Selector is used to view more patterns of current selected tool in Tux Paint. ☐
5. AI helps us in doing things faster and accurately. ☐

C. Fill in the boxes.

1. Computer stores the work in its MMR.
2. EAE tool is used to erase any part of a drawing.
3. DSG is the repetition of colors, shapes and lines.
4. ATDW is a free online drawing program.

Additional Information

(Do's and Don'ts)

Kids! Computer is a delicate machine. We should use it carefully. Let us learn some **do's** and **don'ts** while working on a computer.



✓ Do's

1. Press the keys of the keyboard gently.



2. Clean the computer with a soft and dry cloth every day.



3. Maintain the correct sitting posture while working on a computer.



4. Wait for your turn if you are sharing the computer.



✗ Don'ts



1. Do not push the computer. It can disturb the cable connections.

2. Do not make the computer room dirty.



3. Do not eat or drink near the computer.



4. Do not touch the wires and cables when the computer is on.

