



**INFORMATION & COMMUNICATIONS TECHNOLOGY**

**STANDARD**



**GOVERNMENT OF KERALA  
GENERAL EDUCATION DEPARTMENT**

---

**STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (SCERT), KERALAM**

**2024**

## NATIONAL ANTHEM

Jana-gana-mana adhinayaka jaya he  
Bharatha-bhagya-vidhata,  
Punjab-Sindh-Gujarat-Maratha  
Dravida-Utkala-Banga  
Vindhya-Himachala-Yamuna-Ganga  
Uchchala-Jaladhi-taranga  
Tava subha name jage,  
Tava subha asisa mage,  
Gahe tava jaya gatha.  
Jana-gana-mangala-dayaka jaya he  
Bharatha-bhagya-vidhata,  
Jaya he, jaya he, jaya he,  
Jaya jaya jaya jaya he!

## PLEDGE

India is my country. All Indians are my brothers and sisters.

I love my country, and I am proud of its rich and varied heritage.  
I shall always strive to be worthy of it.

I shall give my parents, teachers and all elders respect, and treat everyone with courtesy.

To my country and my people, I pledge my devotion. In their well-being and prosperity alone lies my happiness

---

## INFORMATION AND COMMUNICATIONS TECHNOLOGY - V

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## **PREFACE**

Dear children,

We have learnt a lot through computer games. We use computers for very many things these days. But we should be able to do even more serious things than gaming using computers. Our times demand it. It is to that end the activities in this book are designed.

Drawing pictures, preparing notices, drawing geometric figures, understanding topics with the help of computers, using the facilities of the internet, understanding the safe use of it and learning the basics of computer programming are some of the basic activities for us this year. Those activities will also help you in learning other subjects.

I wish you well.

**Dr. Jayaprakash R. K.**

Director, SCERT

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**Each chapters also contains illustrations**



**FURTHER READING**



**ASSESSMENT**



**FOLLOW UP ACTIVITIES**

# **THE CONSTITUTION OF INDIA**

## **PREAMBLE**

**WE, THE PEOPLE OF INDIA**, having solemnly resolved to constitute India into a <sup>1</sup>**[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

**JUSTICE**, social, economic and political;

**LIBERTY** of thought, expression, belief, faith and worship;

**EQUALITY** of status and of opportunity; and to promote among them all

**FRATERNITY** assuring the dignity of the individual and the <sup>2</sup>[unity and integrity of the Nation];

**IN OUR CONSTITUENT ASSEMBLY** this twenty-sixth day of November, 1949 do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec.2, for "Unity of the Nation" (w.e.f. 3.1.1977)

## Chapter 1

# Let's Draw and Paint



“A river carrying crystal clear water; woods on one of its banks; here and there in the sky small, puffy clouds; along the river, a boat with sails propelled by the wind...”

Dinu and his friends were discussing the landscape for the cover page of the magazine for their school's Haritha Club.

### Painting Software

To draw and paint pictures, there are many software programs which include Tux Paint, KolourPaint, Gimp, Krita and Inkscape.

The illustration for the cover is to be prepared on computer. What sort of software can we use to draw the kind of picture mentioned above? Do you have any idea?

Yes, there is a simple software called 'KolourPaint' to help us draw pictures. Let's see how we can use KolourPaint to draw.

We can try the same picture as discussed by Dinu and friends.

First, we have to open the KolourPaint. Let's open it on our computer. .

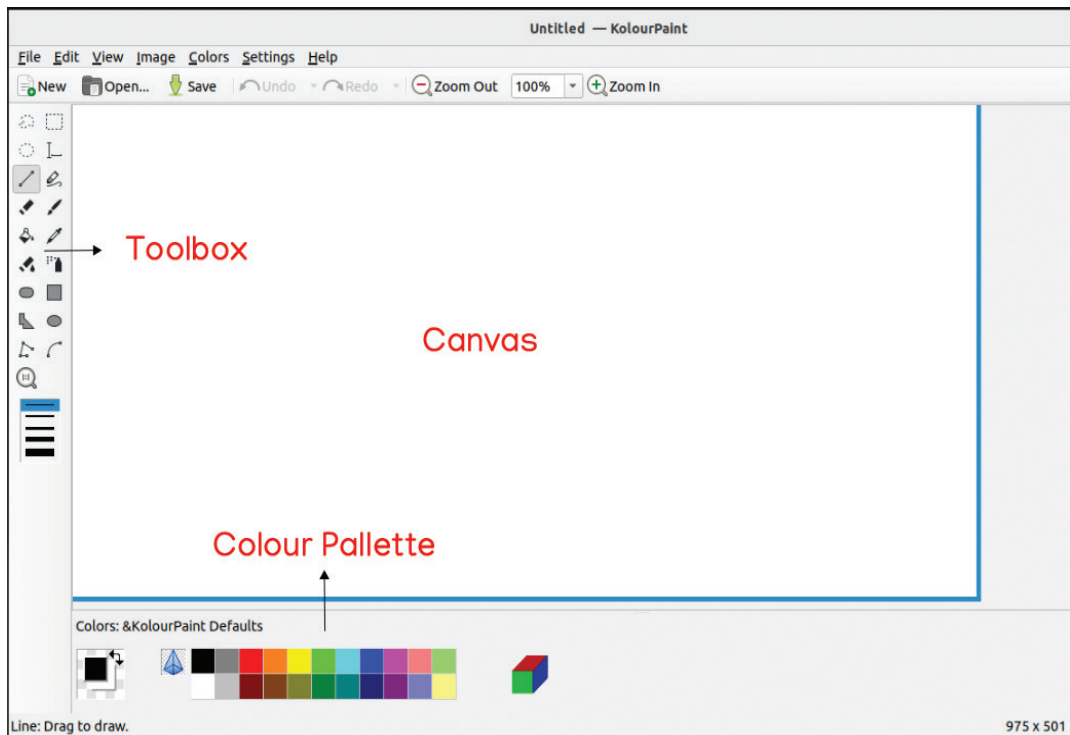


Fig. 1.1 KolourPaint Window

We have now opened the KolourPaint Window.

To draw a picture, what do we need first?

Yes, the space to draw. Let's call that space 'Canvas'. We can see the Canvas as soon as we open the KolourPaint.

Does your Canvas look smaller on your computer? Then, enlarge it as shown in *Figure 1.1*. You can enlarge it by dragging the bottom corner of the window as shown in *Figure 1.2*

What else do we see in the window?

### To Enlarge KolourPaint Canvas

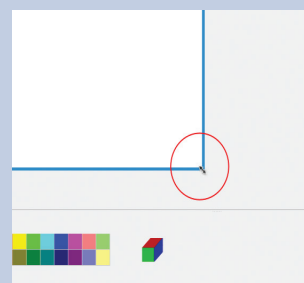


Fig.1.2 How to enlarge the KolourPaint Canvas


Did you understand the tools in KolourPaint?



Oh, yes!  
We can use the tools to draw things like circles and squares and paint them. We can spray the colours as well.



### To draw the frame in the KolourPaint

- Select the *Rectangle Tool*  from the *Tool Box*.
- Drag it and draw the frame in the *Canvas* in the size required

Place the mouse pointer on each tool in the *Tool Box*. We can see the name of each tool appearing.

Now, let's see if there are any tools for drawing and painting.

Also, find out other tools and their uses. You can also select some of those tools and try them on the *Canvas* and complete the table 1.1 below.






Icon	Tool	Use
	Rectangle (R)	To draw rectangles and squares
		To draw tetragons and polygons
	-----	-----
	-----	-----
	-----	To draw circles and ellipses

Table 1.1 KolourPaint tools and its uses.

Do we need the entire Canvas to draw our picture? If we draw it in a 'frame', won't it look better?

Moreover, it will be easier for us to fill colour and border the picture in a frame. The frame will also help us to align the lines closer to the border. Let's draw a frame and a picture inside it.

### Let's draw the 'Frame'.

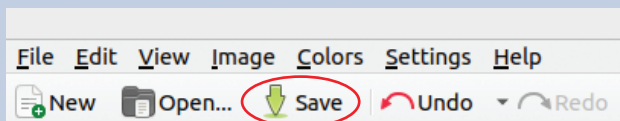
Have you found the tool to draw the frame?

If you have, draw a frame in the *Canvas* for our picture.

Is the frame ready?

Once it is ready, we know we have to save it. If we don't save it, it will be lost, once we shut down the system.

### To save the file in the KolourPaint



- Click on 'Save document' in the *Main Toolbar*.
- Type a name for the file in the window opened
- Click on 'Save'

Do you remember where you have saved your file?

You can seek your teacher's help to save it with a proper name in a proper place.

## Let's Draw the River and the Sky

Do you remember what we need to draw? Yes, a landscape – with a river, a sailing boat, woods and the sky.

What shall we draw first?

First, we need a line (the horizon) to separate the river and the sky.

Let's draw a horizontal line just below the middle of the frame. To draw it, select the 'Line Tool'.

When you draw, you have to draw from the border of the frame. If there are gaps, when you paint, colour will spread all over the *Canvas*. See *Fig. 1.3*.

### When we use the *Rectangle Tool*



When we select the *Rectangle Tool*, we can also adjust the size of the brush and the frames for 'No Fill', 'Fill with Foreground Color' and 'Fill with Background Color'. Here we have used the 'No Fill' frame and the linear brush. We can also use 'Brush Size 1' as well in the place of the linear brush.



### Different Shapes

To draw various shapes, the *Tool Box* has several tools like *Rounded Rectangle*, *Polygon* and *Ellipse*.

### When using the Line Tool

When using the line tool, press and hold the Shift key to draw your line vertically, horizontally or diagonally.




Fig. 1.3. The 'frame' to draw the picture

Now that the frame is ready, we can draw the sky above the line and the river below it. We need to fill the colour the sky and the river in the frame. But painting can wait. We can do that later.

### A Boat on the River

What do we draw next? Maybe, we can try the boat. The best tool for drawing a boat with a sail is the *Polygon Tool*. This tool helps us draw all sorts of closed polygons.

#### Using the Polygon Tool

- Select the *Polygon Tool*  from the *Tool Box*.
- Click the mouse on the spot where you want to start the drawing
- Then, as shown in Fig. 1.4, click on all the three sides
- Take the mouse pointer to the starting spot and deselect the tool by right clicking



#### Another Drawing Tool



We can draw a boat with *Connected Line Tool* as well. Select the tool and then click on where you want to start. As you click on the points where you want to draw, the line will start appearing. Complete the picture by clicking on the required points. Once the drawing is finished, right click the mouse to deselect the tool.



Don't forget to add the picture of the sailing boat to the river you've drawn.

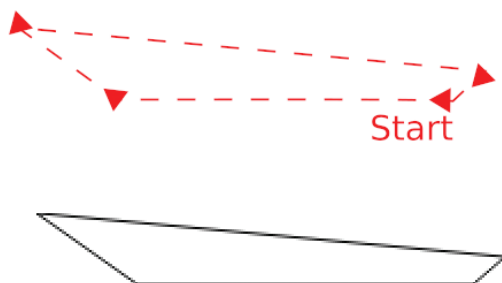


Fig. 1.4. The outline of the boat

We have now finished the illustration of the boat. Next, we have to draw the sail. We can use the same *Polygon* Tool for drawing the sail. Try drawing it as shown in Fig. 1.5.

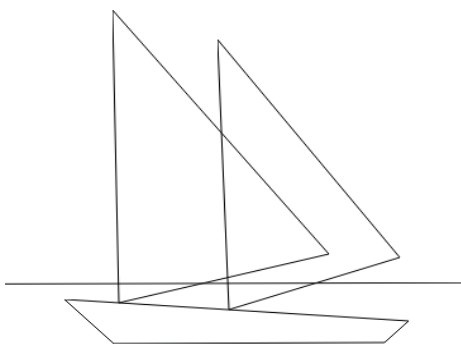



Fig. 1.5. Outline of the sail

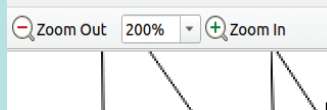
Once you complete your drawing, you can deselect the tool by right clicking. The first line (horizon) we have drawn can be seen in the sail of the boat. It may be a problem while we fill the colour in that part. To avoid it, we can erase that part using the *Eraser* Tool . Use the tool carefully, and you can see it disappearing.

When you use the *Eraser* Tool, be very careful. If you double click, the whole thing will disappear.

### To Erase

- Select **Eraser** Tool.
- Move the cursor carefully and click on the line to be erased.

### 'Zoom Out', 'Zoom in' Tool




While erasing, the *Eraser* may touch other lines and make them disappear. If we can enlarge the picture, we can pinpoint the part to be erased. Use 'Zoom Tool' for the purpose.

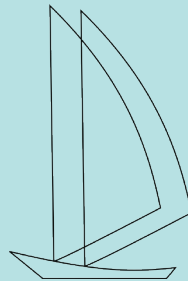
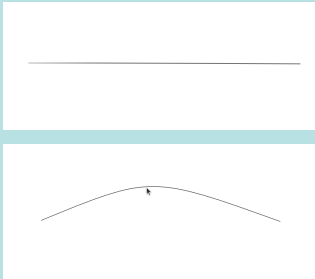




## We can draw the boat with the Curve Tool as well

We used the *Polygon Tool* to draw the boat and the sail. They can also be drawn using the *Curve*  Tool. It can be used to curve the top of the boat and the stretched part of the sail. For this ;

- Select 'Curve' from the Tool Box.
- Click and drag to draw a line.
- Click and drag to spot where you need a curve.
- Right click to deselect the tool.



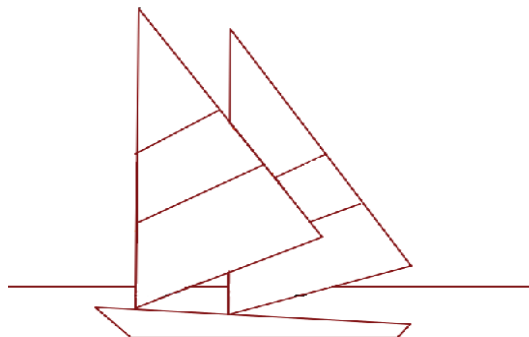
The boat drawn with the 'Curve Tool'

Use 'Undo'  to get the thing back.

Suppose we want to apply more than one colour to the sail. When we fill colour a closed space in the KolourPaint, it will get filled with that colour.

Let's see how we do that. See *Fig. 1.6*. Draw lines across the sail. Then we can fill each box with a different colour.

The sail boat is ready.  
Now, we can fill colour in it.



**Fig 1. 6.**  
When lines are drawn across the sail

You already know the tool you need to draw such lines, don't you? Using that tool, draw a few lines on the sail.

Now, the sky, the river and the boat are all ready. But landscapes are all colourful. As you know, colours make a picture more beautiful. So, let's paint our picture.

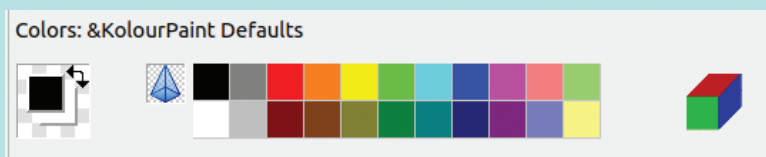
### Caution!

Before you paint, make sure that all the lines are properly drawn. Otherwise, colours will spread all over.

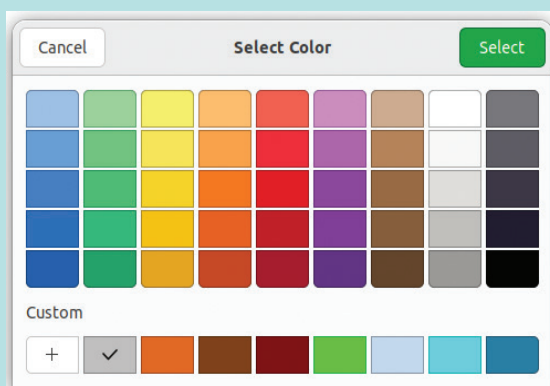
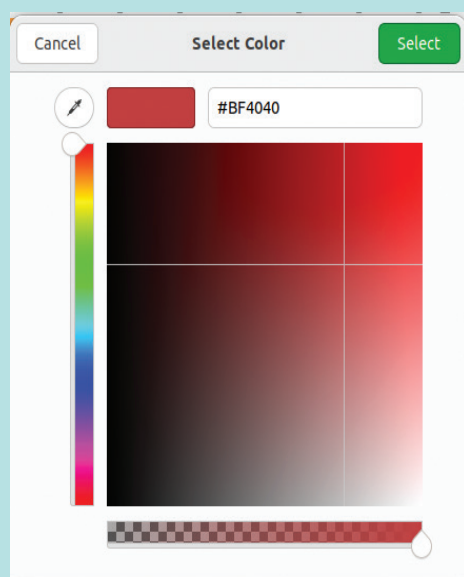
We've already saved our picture. But, every time we make a change, we have to save it. Please remember that. We can click on either the icon 'Save' in the *Main Toolbar* or press 'Ctrl + S' on the keyboard

## Colour Palette

In the drawing software, 'Colour Palette' is the window for selecting colours. When you first open the KolourPaint, the *Colour Palette* will show you the kinds of colors below. Double click on any colour, and you will see its different hues.



If you need a new colour, you can get it by clicking on it.




To get more colours, go to 'Custom' in the window and click on the sign '+'. Once you click, 'Select Colour' will open and you can choose the colour you want.

Have you filled the colour in the background and the boat with the appropriate colours? Don't you see the picture is looking pretty now?



Fig. 1.7 When the picture is painted

### Let' Paint the Shore and the Woods

To make the landscape look more attractive, let's draw the shore. To do so, we can use the 'Pen' tool .

Draw carefully the outline of the shore and the woods using the *Pen* tool. Then, select a suitable colour to paint them.

If you make a mistake, erase it using 'Undo' and re-draw.



### Shadow and Light

When people draw with a pencil, you see them shading it. Also, when they paint, they use light and shade. Have you ever thought why they do that? It is to make the objects look three dimensional. We use light colours where the light is strong, and strong colors where the light is weak for making light and shadow.

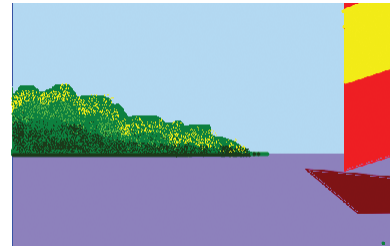


Fig. 1.8 When the shore and woods are coloured

Try applying light and shade to the woods, using the 'Spraycan'  tool .

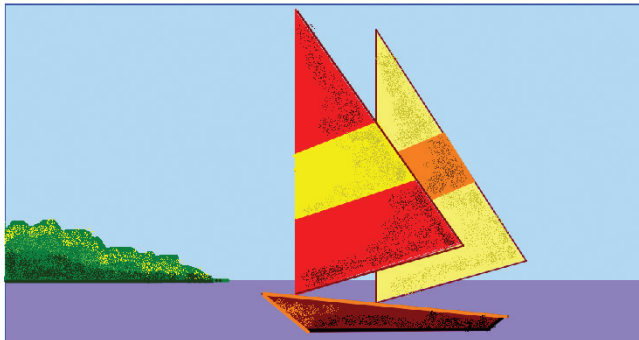
Look at *Fig. 1.9*. To paint like this, use the *Spraycan*. Use light colour where the light is more and strong colour where the light is less.

Similarly, we can use the ‘*Spraycan*’ to paint the sky and the boat with different colours.



**Fig. 1.9**

The landscape is made more beautiful, using light and shade

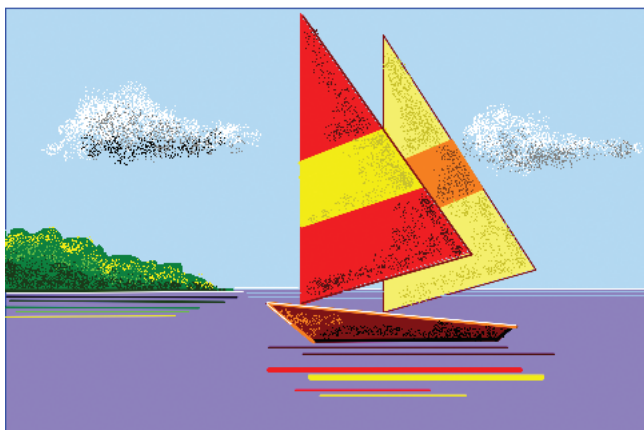


**Fig. 1.10** When ‘*Spraycan*’ is used to make the picture more beautiful

As you know, the river will reflect the land and boat. To draw those reflections, we can use ‘*Line*’ tool and ‘*Brush*’ tool.

Also, try whether you can create clouds in the sky using *Spraycan*.

See, how beautifully we have painted the picture!



**Fig. 1.11**

The finished painting of the sail boat.

Oh, I didn't know  
I can apply  
*Spraycan* Tool  
to paint like this.



Let's save our picture once more. Don't forget to give the picture for making the magazine cover.



## ASSESSMENT

- ♦ We have learned that light and shade can be used to make objects look three dimensional. Which is the appropriate tool available in the KolourPaint for doing this?
 

A. Eraser Tool	B. Polygon Tool
C. Spraycan Tool	D. Rectangle Tool

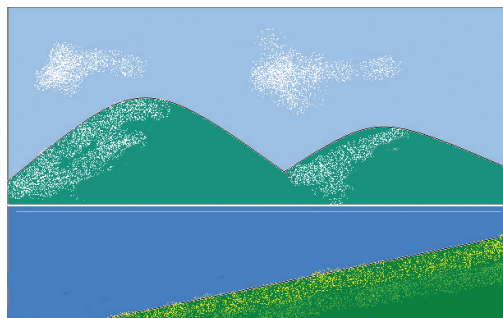


## FOLLOW UP ACTIVITIES

1. Draw the picture of a house and paint it using the KolourPaint software.

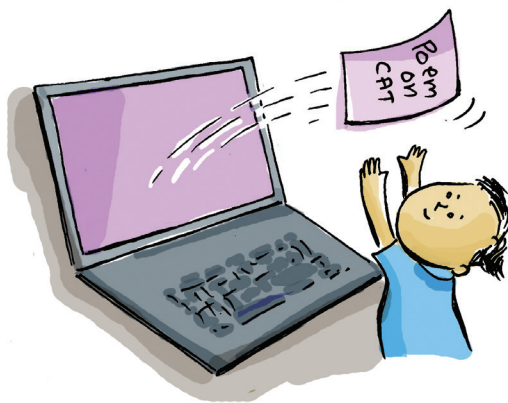


2. Using the KolourPaint software draw the landscape given below :



## Chapter 2

# Let's Write on the Computer



The school's English Fest is almost here. To spread the news of the fest, a notice is to be prepared. Suhana and Piyush are in charge of preparing the notice.

Fig.2.1. shows the notice they have made.

What can we do to make this notice better looking? Let's see.

- The title has to be bigger.
- .....
- .....



Fig. 2.1 English Fest Notice

We can also use our computer to prepare the notice, can't we? It will be then easier to make corrections and changes. We can also make as many copies as we need.



What are all the facilities we have in the computer for this purpose? Let's discuss.

- We can use various colours to make the notice more attractive.
- We can use different font styles for letters.
- .....
- .....

The software for typing and formatting documents is called 'Word Processor'. The word processor we use is a Free and Open Source word processor. It is called 'Libre Office Writer'.

You may already know the advantages of using a free software. Try to gather more information about it.

LibreOffice Writer enables us to prepare various forms of writing like essays, messages and notices. It helps us present them neatly and systematically.

### LibreOffice Writer

LibreOffice Writer is the Word Processor software in the LibreOffice package.

Look at some of the samples given in Fig.2.2



Fig. 2.2. Samples of notices prepared on the computer

Can you spot the different techniques used in these samples?

- Use of different font styles.
- Use of different font colours.
- .....
- .....

Let's prepare a notice using LibreOffice Writer.

### Preparing the Notice

Open LibreOffice. First, type the title of the notice, using the keyboard.

You may have already learned to type with the keyboard.

Now, complete the table below, after using the keys on the keyboard.

#### Cursor

'Cursor' is the symbol that indicates where the typing will appear. It looks like a 'short line' where you start typing.



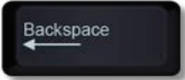
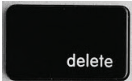
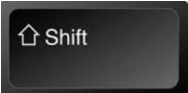
Key	Name of Key	Use
	Space Bar	To space words
	Enter/Return	.....
	.....	.....
	.....	.....
	.....	To type uppercase and to type the upper symbols on a key along with other appropriate keys.

Table 2.1 Some keys and their uses

Once you have typed the title of the notice, you are also supposed to type the content of the notice.

### Let's Make the Content more Attractive

You've typed the content, haven't you? Now, let's make it look more attractive. Take a look at *Fig. 2.3* and discuss what changes are needed.



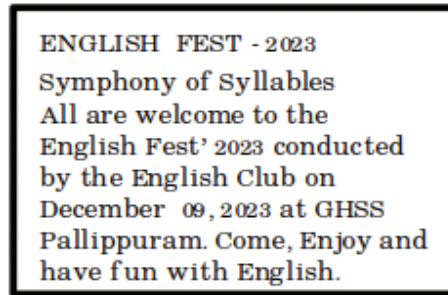


Fig.2.3 Notice Text

### To select a word

To select a word, place the cursor at either end of the word and drag it to the opposite side. Alternately, you can also use the 'Shift' and 'Arrow' keys.

- Place the title in the centre.
- Increase the font-size of the title.
- Use attractive font styles as shown in the sample.
- Change the font colours.
- .....
- .....

There are many tools in LibreOffice Writer to format the text and make it appear more attractive. Take a look at Fig 2.4. Using the tools make the notice more attractive.

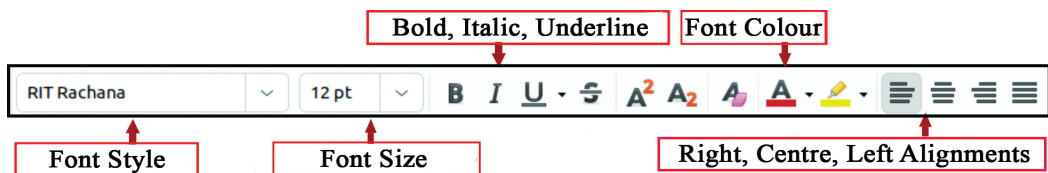


Fig.2.4 Formatting Tools

### Let's Save the Notice

In the previous chapter, you have already learned how to save a file. Once the notice is ready, save it in the '**Class**' folder of your '**Home**' folder. You can seek the help of your teacher to save it and name it appropriately.

LibreOffice Writer offers many other facilities. You will learn them in higher classes.



## ASSESSMENT

- ♦ Using LibreOffice Writer, type to chart a programme for English Fest participants. Include in the programme the phrases given below :
  - ♦ Recitation
  - ♦ One Act Play
  - ♦ Storytelling
  - ♦ News Reading
  - ♦ English Song
  - ♦ Book Review
  - ♦ Spelling Competition
- ♦ Prepare a participation card in LibreOffice Writer as the model given below :

### **ENGLISH FEST - 2024** **Participation Card**

Name of Student : .....

Name of School : .....

Name of Items :

1. ....

2. ....

3. ....

Club Convenor



## FOLLOW UP ACTIVITIES

Use LibreOffice Writer to prepare the following activities:

1. Prepare a notice inviting parents to attend Haritha Club's programme of 'No Plastic in School'.
2. Little KITEs IT Club is planning to offer 'Animation Training' for students of Standard V. Prepare a notice announcing the registration of students for the programme.



## Chapter 3

# Geometric Figures on the Computer



The figure on the left shows a picture drawn by Neena in the Drawing Class. The picture was still on the board when the Maths teacher came to the class. She posed a question to the class:

“Could you find out the familiar geometric figures in this picture?”

Anan got busy as he wanted to answer.

- ♦ Rectangle
- ♦ Circle
- ♦ .....

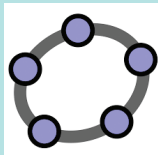
“Have you ever drawn these figures on your computer? Which software helps us draw them?”

“KolourPaint”, said Neena.

Of course, Kolour Paint can be used to draw some figures. But it has limitations. Could you note them down?

- ♦ The triangles and rectangles drawn by KolourPaint cannot be measured with precision.

### GeoGebra



GeoGebra is a free software that helps us draw geometric figures and observe their features.

- ♦ It is difficult to draw polygons having many sides with KolourPaint.

- ♦ .....

There is a software which helps us draw geometric figures with precise measurements and explain mathematical concepts. It is called 'GeoGebra'. Let's find out the facilities offered by GeoGebra.

### Let's Draw a Geometric House

Let's use the tools in GeoGebra to draw a house. Look at the house drawn by Ramu. Could you draw a house like this, using GeoGebra software?

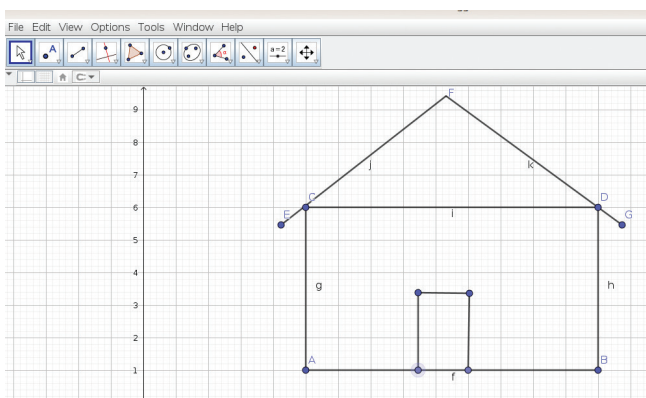
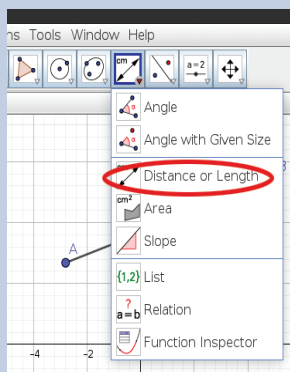


Fig. 3.1 Geometric Home

### Measure the length of the line

GeoGebra has tools to find the measurements of lines, angles and figures. *Distance or Length* tool helps to measure length. If you select this tool and click on a line, you can get its length.



### Drawing Lines Using GeoGebra

Go to the Toolbar in the GeoGebra window. Select the *Segment* Tool from the *third tool set*. Click on the starting spot and the ending spot. You can thus draw segments like this.

How do I find the height of the house, using *Distance or Length* tool?



## Let's Find the Height of the House

To find the length, width and height of the house you have drawn, you can use *Distance or Length* tool. Find the length, width and height of each side of the house to complete Table 3. 1. Below

Name	Length
Height of the wall	..... Unit
Height of the door	
Length of the house	

Table 3.1

The measurements of the house drawn by GeoGebra

## Let's Draw Triangles and Quadrilaterals

You can see many toolboxes in the GeoGebra window. It contains many tools. Check each toolbox to complete the table below.

### Polygon Tool

*Polygon* Tool helps us draw polygons like triangles and quadrilaterals. To draw polygons, select the *Polygon* Tool and click on the corners of the polygon you want to draw in the GeoGebra *canvas*.

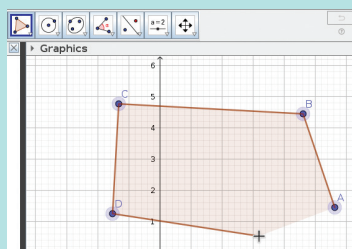


Image	Name	Use
	Point	To mark point
	Length and Distance	

Table 3.2. GeoGebra Tools

## Let's save

You can save the constructions created using GeoGebra in the order of **File → Save**. The file will be saved with the extension of ‘.ggb’.

Using the *Polygon* Tool in GeoGebra, try drawing triangle, quadrilateral, and pentagons as you learned in the math class (Fig.3.2).

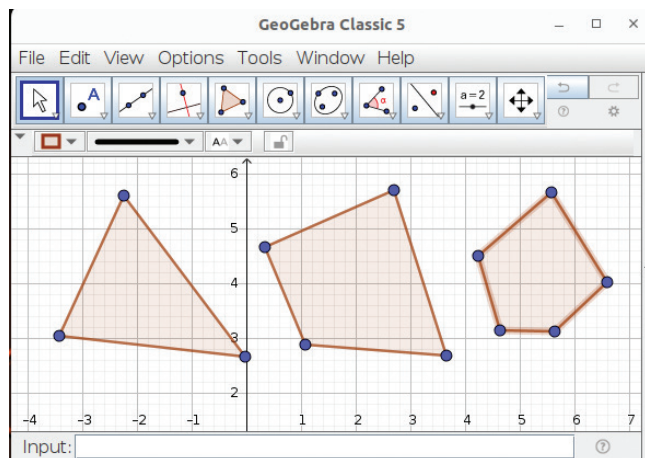


Fig. 3.2. Polygons

## Let's Colour and Label

Usually, we label, don't we, the figure we draw. For instance, a line is named AB, a triangle ABC, a quadrilateral ABCD and so on. GeoGebra also allows us to label thus. Let's see how it works.

First, select *Segment* Tool to draw a line. It usually appears as a black line. But we can change its colour as shown in Fig. 3.3.

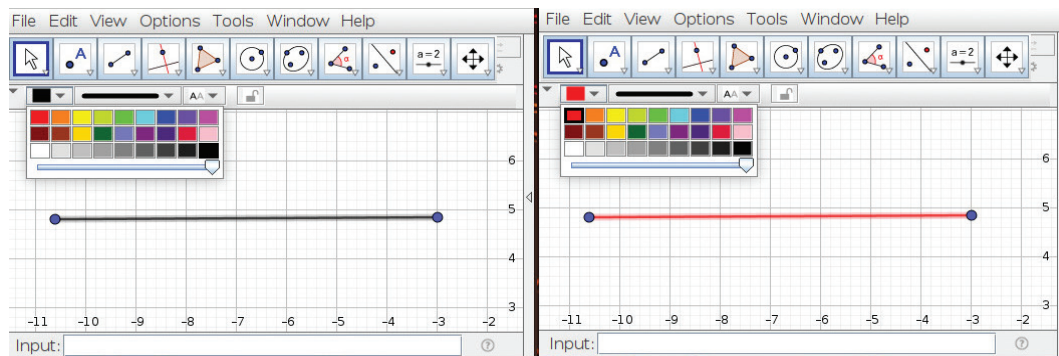


Fig 3.3. The window for colouring

Select a suitable colour and change the colour of the line.

Now, Let's label the line. First, select the point at the end of the line. Then, right click the mouse to open the menu (See Fig 3.4.). Select 'Show Label' from the menu. Why don't you try labelling on your own?

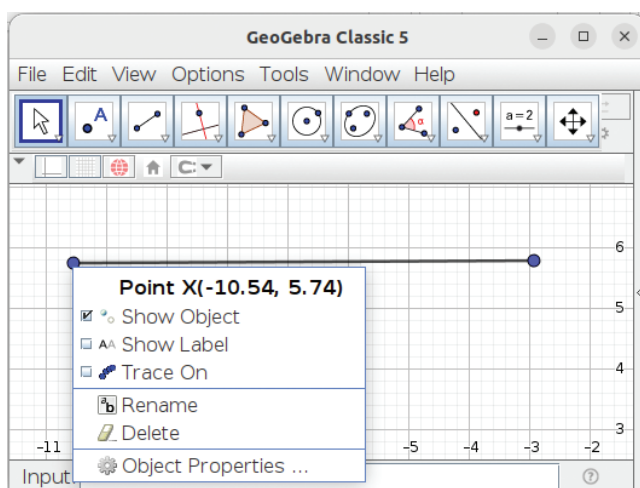


Fig. 3.4. The Window for labelling a line

## Let's Make the Rectangle More Attractive

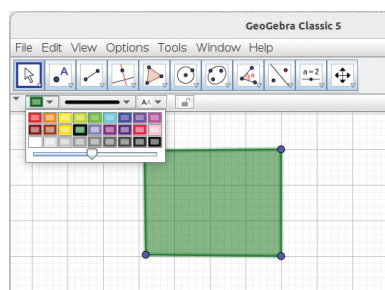


Fig. 3.5. The window for painting polygons

Draw a rectangle with the *Polygon* Tool. Then, as shown in Fig. 3.5, colour and label it to change its style. As you fill in with the colour, see what happens when you move the slider below the colours.

## Let's Draw a House

You have seen the house Neena has drawn. Using GeoGebra, draw such a house and make it beautiful by painting it as shown in Fig.3.6.



### When assigning colours in GeoGebra

We cannot colour the figures we drawn with *Segment* tool. For instance, we can't give colour to a triangle drawn with three lines. It considers them as just three 'sides' without the area inside. But when we draw triangle and rectangle figures with *Polygon* Tool, GeoGebra accepts them as figures including the area inside them.



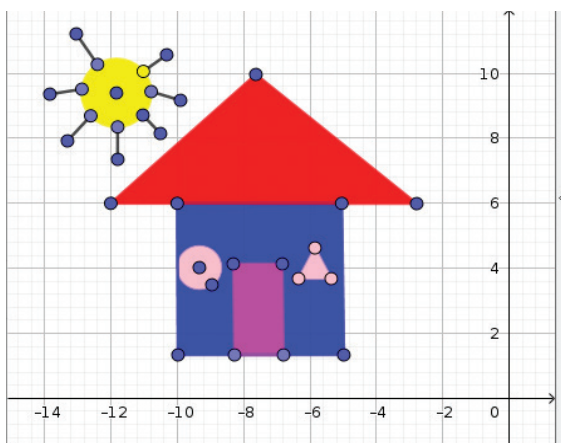


Fig3.6. Let's draw a house



## ASSESSMENT

- ♦ Which is the tool in GeoGebra for drawing polygons?

A)



B)



C)

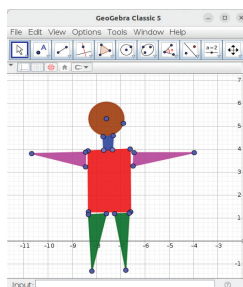
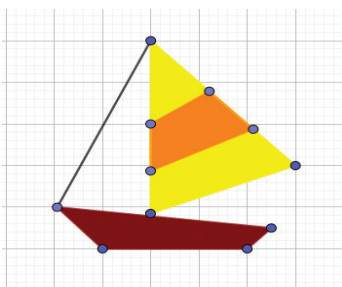


D)



## FOLLOW UP ACTIVITIES

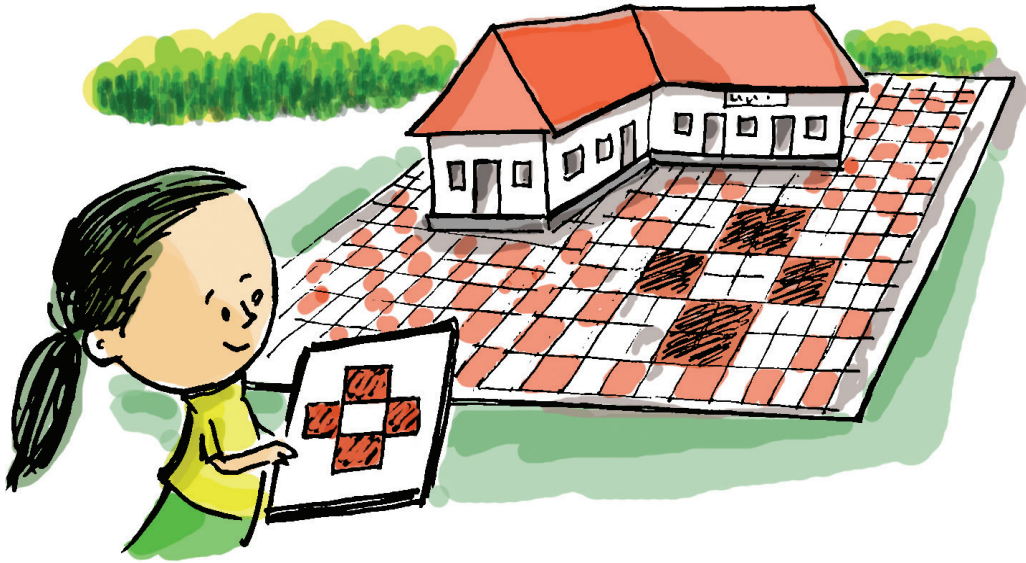
1. Draw a house on GeoGebra canvas using *Polygon* Tool. Paint it with appropriate colours to make it look beautiful. Also, measure the length of all its sides and write it down.
2. Draw on GeoGebra the figures given below. Create a table after measuring the length of each part of the figures. (Use *Polygon* Tool as you have to colour the polygons).





## Chapter 4

# Coding for Drawing



“See, they have laid new tiles on the school yard. How beautiful!” Nimmi was delighted.

The yard looked beautiful as tiles of various hues were appropriately laid to form a mosaic.

Now, look at some geometric patterns prepared by the students for the school’s Science Fest. (*Fig. 4.1*)

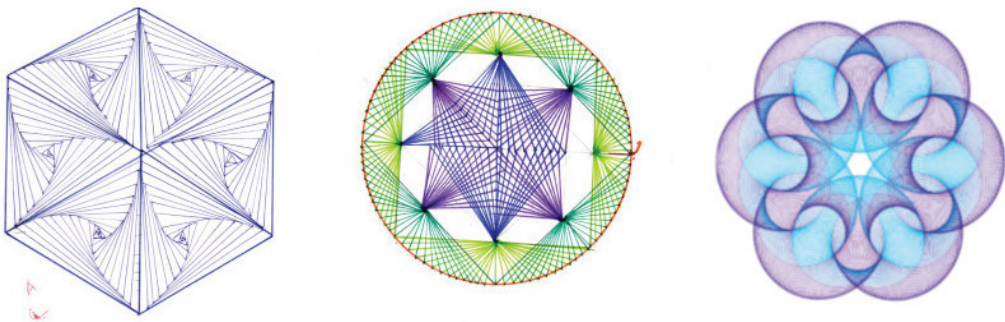


Fig. 4.1. Geometric Patterns

To make such patterns, there are a few things to be followed carefully. Could you guess what those things are?

- ◆ We need lines, circles and arcs.
- ◆ We have to draw them in specific order to form the geometric patterns.
- ◆ .....

Computer can create such diverse patterns, as we have software programs in our computer to generate geometric figures.

We have learned, haven't we, about GeoGebra in the previous chapter. GeoGebra includes specific tools to create geometric figures and patterns.



You already know that the computer works as per the input we put in. Could you try forming geometric patterns by feeding directions into your computer?

How do we give directions to the computer? For that, we have some special programming languages like Scratch, Java and Python. We can use any one of these.

The Scratch in our computer is a 'block programming' language. Maybe, you have played games created by Scratch. Those games are prepared by giving directions to the 'Sprites'. In the same way, we can give directions to Sprites to create geometric patterns. Shall we try?



## Scratch

Scratch is a simple programming language which enables us to create animations and games. We need not type in the directions (codes) for programming, as they are given in the form of 'blocks'.

Okay. So, let's open the Scratch in our computer.

As you can see, there is a *Sprite* in the *Stage* of the window. See Fig. 4.2.

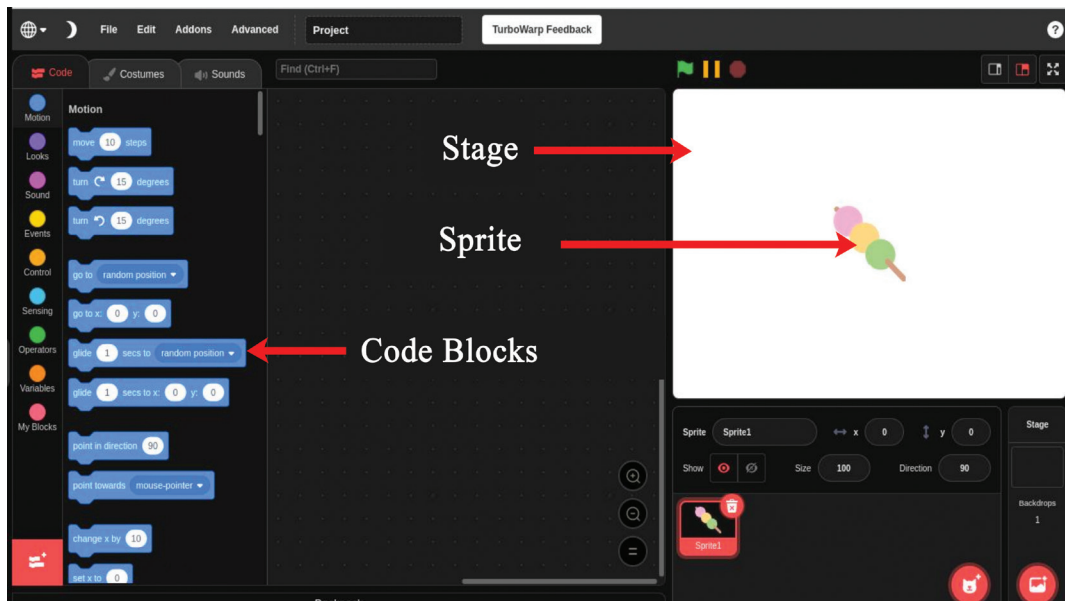
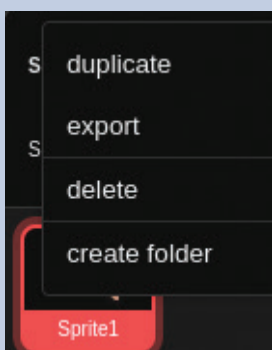


Fig. 4.2. The Scratch Window

### Deleting the Sprite



Is there a way to delete a *Sprite*? Place the mouse on top of 'Sprite1' image and right click. Don't you see the option to delete the *Sprite*?



### Stage, Sprite

'Sprites' are the characters in animations and games prepared by Scratch. 'Stage' is the white background where the *Sprites* are arranged.

We need to remove the *Sprite* that appeared as we need another appropriate *Sprite*. How do we eliminate the existing *Sprite* from the *Stage*?

Click on the 'delete' icon  on top of 'the Sprite 1' image  you see below the *Stage*. As you click, you can see the *Sprite* disappear.

### Let's Include a New *Sprite*

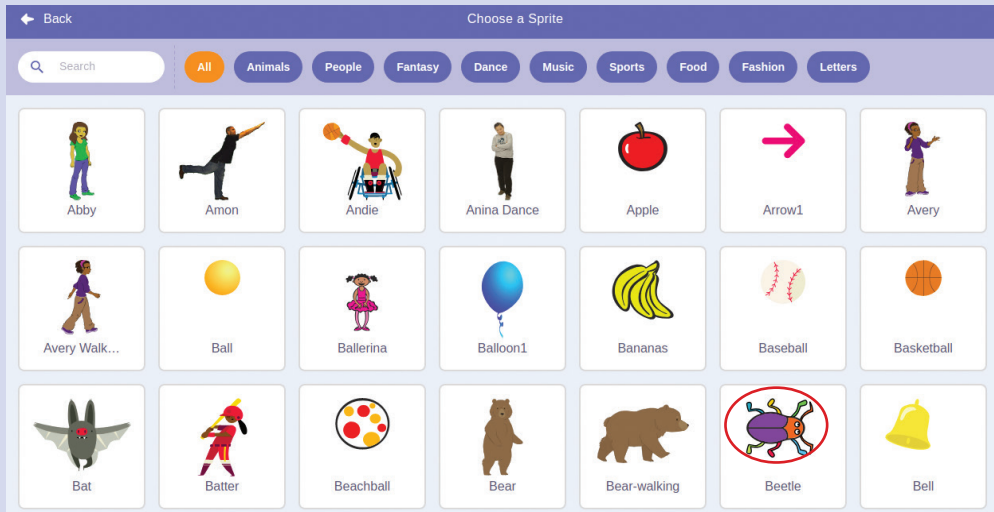
How we include a new *Sprite* in Scratch?

Using the given notes, include the image of a beetle as a *Sprite*.

Change the size of the *Sprite* as required.

## How to Include a New *Sprite* in Scratch

- Click on the icon, 'Choose a Sprite', below the *Stage*.



- As the window opens, select the 'beetle' image.

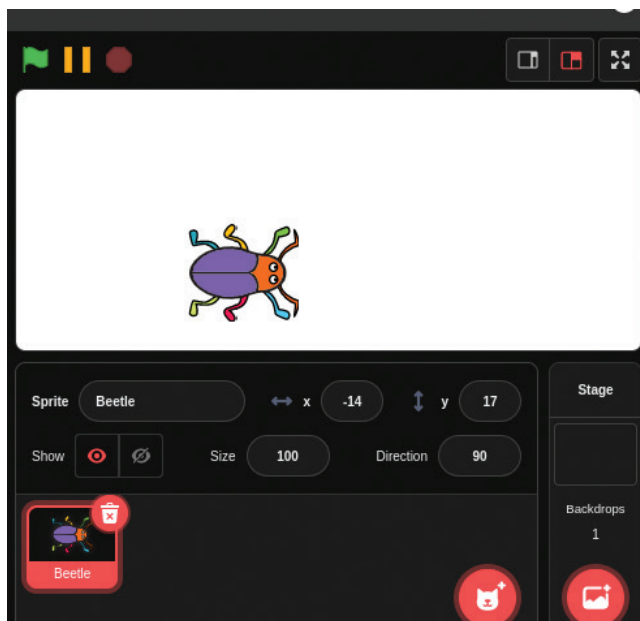


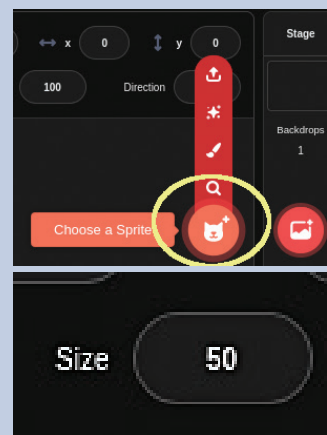
Fig. 4. 3. The beetle image included as a Sprite

## Let's Animate the Beetle

As you know, we are using the beetle to draw the image according to the instructions we give. We need to move the image for that. Try to find out in Scratch the codes for moving. Take a look at Fig 4.4.

## Changing the Size of a *Sprite*

- Select the *Sprite*.
- In the space for 'Size' type in the required size.



In the Code Tab,  
there are not only  
blue blocks but  
also blocks in  
other colours



Yes, when I clicked  
on a different block,  
I got directions for  
including sound.

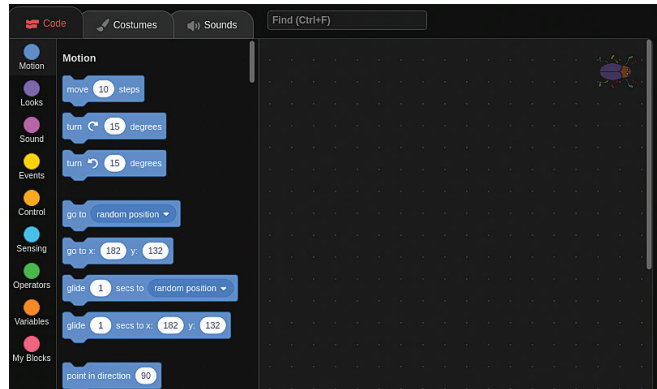
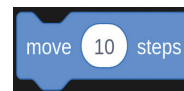


Fig. 4. 4. Codes in Scratch

The directions in Scratch are arranged as ‘blocks’ in the Code Tab. Please read each of those directions.

Are there directions to move the beetle?



Try to guess the use of other codes. The code blocks are given in different colours in the Code Tab. Have a look at them to complete the table below:

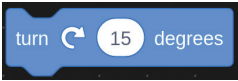
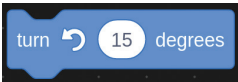

Directions	Use
	To turn right
	.....
	.....

Table 4.1. Some Codes in Scratch, and their uses

We have to programme each *Sprite* by dragging the necessary directions to the *Script area* in the centre.

Choose the codes for moving the beetle and drag it to the *Script area* and click on the codes.

See what happens.

The program became active and the beetle moved forward. What can you do, if you want it to move a little further?

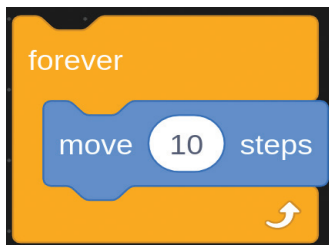
Make appropriate changes in the code and run the program again.

We have now given directions to make the beetle move a few steps.


Suppose you want the beetle to move repeatedly. What can you do? Of course, you give it the direction for that. That is, you have to give direction to '*move*' repeatedly.

Where in the block do you find that direction? You can find it by examining the colour of the Code Block.

Now, add to that direction, with the code '*move*' as in *Fig.4.5*. and run the program.



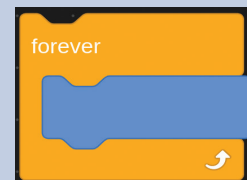
**Fig.4.5 Instructions to move the Sprite continuously**

You can see the beetle moving continuously and stopping when it touches the sides. If you want to stop it before it touches the sides, click on the 'Stop'  button on top of the *Stage*.

To run a program in Scratch, we have clicked on its code. Suppose we want to run the program by clicking on button? For instance, when we clicked on 'stop', the program stopped, didn't

### Direction for Repeating an Action

'Forever' is the code in Scratch for repeating an action continuously.




### Stopping the Program

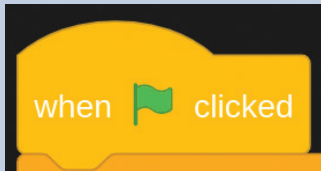
'Stop' button can stop the program. Is there any other way to stop it? Try clicking once more on the program code as it is running.




it? Instead of clicking on ‘stop’, try clicking on the *green flag* near it to activate the program.


### Launch the Program

'when  clicked' is the code used to run a program, when you click on the *green flag*.



See whether there are instructions for this in Scratch by examining the event  group.

You see the code, don't you? Let's see how we can add the code to other directions.

The other directions must do their job only after clicking the *green flag*. So those directions must be the first code we add. Now, arrange the codes as shown below and click the *green flag*  (Fig. 4.6).

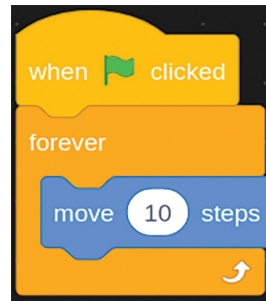


Fig. 4.6. The codes for moving the beetle when the green flag is clicked

We have seen the beetle stopping when it touched the sides. For the beetle to move back, we can add the code 'if on edge bounce'. Add this instructions also in the sample below and run the program. See Fig. 4.7.

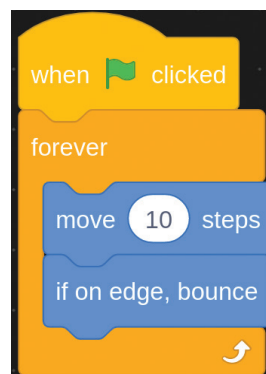


Fig. 4. 7. The directions for the Sprite to return after hitting both sides.

### Let's Save the File

To save your work in Scratch, click on 'Save as' option in the **File** menu. Type the file name in the window opened and click the 'Save' button.

Now, the beetle comes after touching the two sides (Fig.4.7).

## Let's Draw a Picture

We have seen how to animate a beetle by giving it instructions. Now, let's try to draw a picture as the *Sprite* moves.

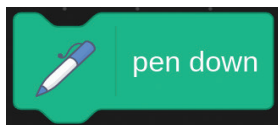
The beetle, as you see, is moving back and forth on the *Stage*. As it moves, let's draw a picture on its path.

To draw a picture on the *Stage* we need 'Pen'. Please include the 'Extension' called 'Pen' in your program.

Have you included 'Pen'?

Okay. Now we have also added a code group called 'Pen' in the code block. Have a look at the instructions in the new code block.

Have you spotted in the block the directions for using 'Pen'?




- We can use the instruction 'pen down'.

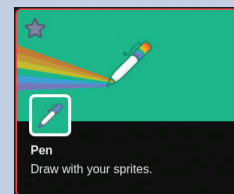
When do we need to activate the Pen?

Yes, when we click the green flag.

So, we can add the instructions for using 'Pen' just above the code 'Forever'.

### Inserting 'Pen' in Scratch

- Click on the button  at the bottom of the *Code block*.
- Select 'Pen' from the window.



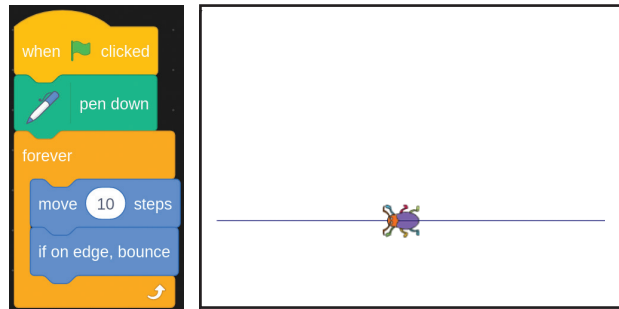
### Pen Down instruction

If you add 'Pen down' to a *Sprite*, the pen gets active along with the *Sprite*. Hence, when the *Sprite* moves, the pen starts drawing pictures on the *Stage*.



Now, as shown in *Fig 4.8*, give the directions and run the program.

Please don't forget to save the file.



**Fig. 4. 8. The instructions enabling the sprite to draw and the output**

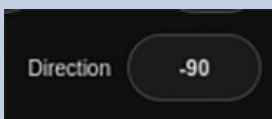
Is your beetle's drawing as shown in the above figure? Do you see anything wrong in the drawing? It is not coming as a pattern, is it?

The drawing looks linear as the beetle traces the same path. Let's see what happens when we change its path of movement. Now, how do we do that?

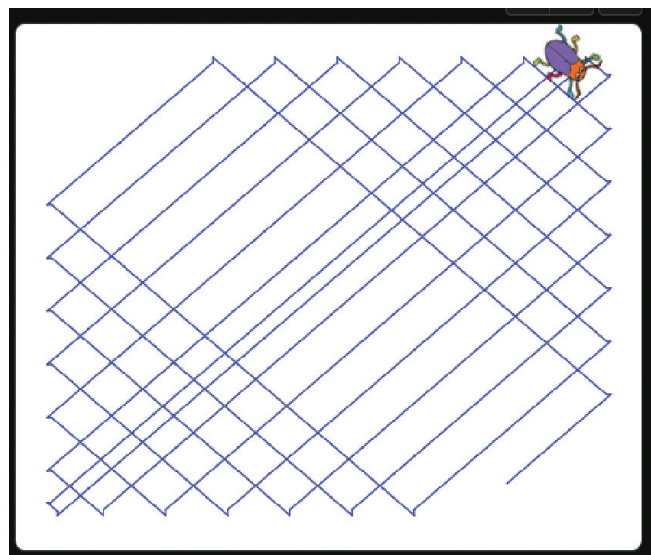
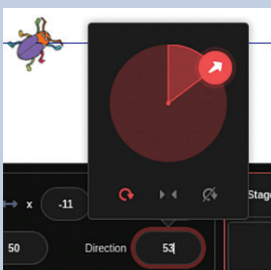
Select the directions shown below *Stage* to change the beetle's path and see the change that happens. As the beetle moves the Pen traces patterns. See *Fig.4.9*.

### Changing the Sprite's path

- Click on the *Direction* icon.

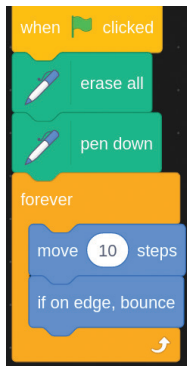


- When the window opens, use the mouse to change the *Sprite's* direction.



**Fig. 4.9. The pattern created by the directions in Scratch**

If you again change the beetle's path, you can see different patterns emerging. If you want to erase the pattern before you click on the green flag, use the block 'erase all'.



**Fig. 4. 10. The directions for erasing the picture to draw again**

### Colour and Thickness of the Pen

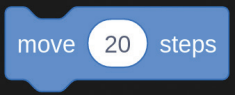
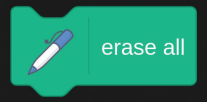

The code, 'set pensize to' enables us to change the thickness of the line.

The code 'set pencolor to' helps us to colour the line



### ASSESSMENT

1. Complete the table below:

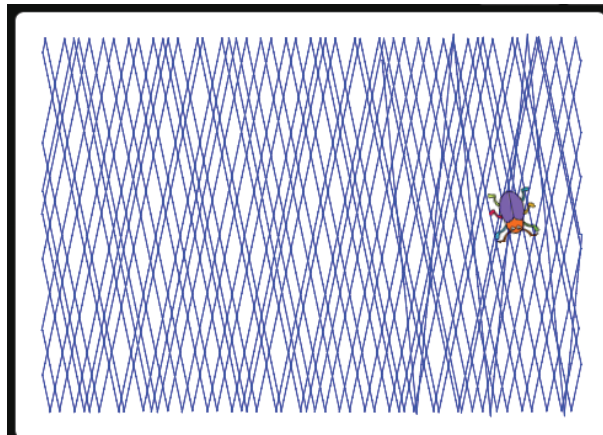
Code Block	Change in Sprite
	moves 20 steps forward.
	
	

2. What happens to the *Sprite* when we run the Scratch codes given in the picture?



## FOLLOW UP ACTIVITIES

- After adding in your program the blocks, ‘set pencolor to’ and ‘set pensize to’, change their values and run the program.
- Draw the pattern shown below, using Scratch code.



## Chapter 5

# Let's Search the Internet



Have you heard of Neeraj Chopra? Did you know the Olympic item that won him a medal?

.....

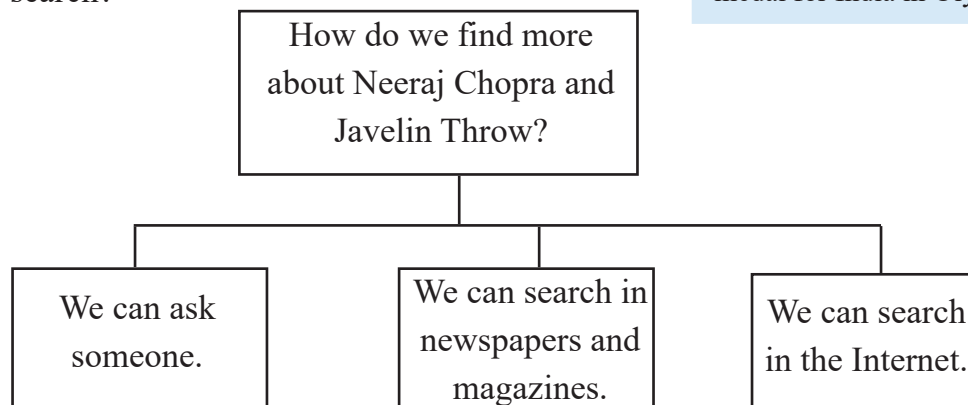
### Let's Search and Find

Like Neeraj Chopra, our Nivin wants to become a star of Javelin Throw. Therefore, he wanted to know more about Neeraj Chopra. How will he do that? Could we help him in his search?



**Neeraj Chopra**

Sportsman who won gold medal for India in Olympics

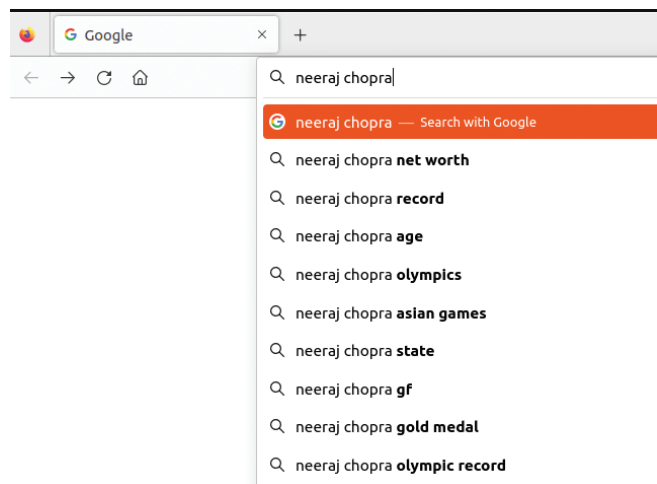


The info we can get from newspapers is limited. We need more data. How do we go about to find it?

Our teacher suggests we can get it from the Internet.

How do we find data in the Internet?

First, we have to connect our computer to the Internet. Then open the ‘address bar’ of a web browser and type in ‘Neeraj Chopra’. See *Fig 5.1*. What do you see?



**Fig. 5.1. Web Browser Window**



### What is Web Browser

We have already used KolourPaint to draw and Writer to prepare notices. In the same way, our system must have a software to search and see the data in the Internet. We call that software ‘Web Browser’.

You have now got a list of websites on Neeraj Chopra. Click on any of them to get more info about him.

To search for data in the Internet, we need to type in appropriate words (key words). ‘Neeraj Chopra’ is the key word we have used. But we must ensure that the info we obtain from the Internet is true. How can we ensure that?

### Right and Wrong Info

When we searched for the info about Neeraj Chopra, we got not only texts but also images and videos. How can we know whether they are reliable?

The sources below are supposed to be reliable.

- ♦ Data from various government websites.
- ♦ Data from newspaper/magazine websites.
- ♦ .....

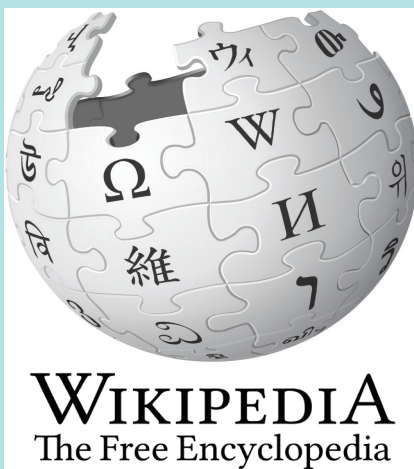
We can also accept data from Wikipedia page which opens as we click on its link in the browser.

There is an article on Neeraj Chopra in Wikipedia. Read it and ensure that the info in other sources is precise.



## Wikipedia

Wikipedia is an absolutely free online encyclopedia founded in 2001 by Jimmy Wales and Larry Sanger. It gets edited and updated continuously. The encyclopedia, running on a free software called 'Wiki', can be edited from anywhere in the world. There is a 'Wikipedia Team' to examine and approve the corrections made by others. Hence, its content is considered more reliable.



Jimmy Wales



Larry Sanger

Internet is easiest source for gathering information. But when we use online media and social media for collecting info, we must make sure that it is reliable.

## Fake News

Can we trust all the news we see in social media?

Have a look at *Fig 5.2*.



Fig. 5.2. Fake News – a Sample



This is true as it has appeared in an official government website



Some people have the habit of spreading fake (false) news. They do it deliberately. But spreading fake news is a criminal offence.

You must also have seen videos, images and messages that spread such news. How do we identify whether a message/video/ image is fake? Discuss.

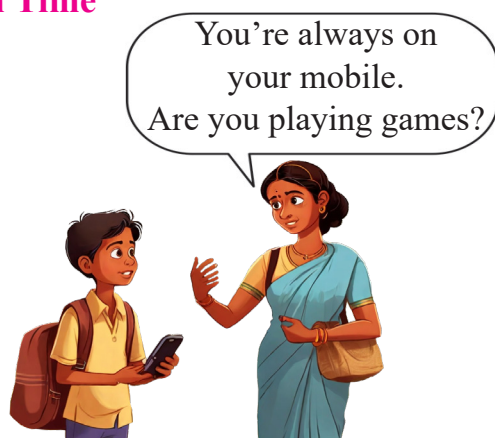
- ♦ You can find out the authenticity (truth) of a message from your elders or teachers.
- ♦ You can also search the reliable sources in the Internet.
- ♦ .....
- ♦ .....

We have to take some precautions before we share the information from the Internet. Let's take a look at them.



- ♦ Sharing and spreading false information is a criminal offence.
- ♦ Never share any info without verifying its reliability.
- ♦ Try to convince others who share information.
- ♦ .....

## Screen Time



You heard Shibu' mother, didn't you?

Friends, do you, like Shibu, spend a lot of time on your mobile?

Does any of your classmates spend more than an hour on his mobile? Conduct an enquiry in your class. It will be interesting to find out.

Have you found the friends who sit more time before the mobilephone?

Once you have found out, you have to tell those classmates about the harms such an activity can cause.

List out the harms you have found out:

- ♦ It's bad for our eyes
- ♦ It's a waste of time
- ♦ It makes you a mobile-addict
- ♦ .....



How long was you on your mobile today?





Internet informs and entertains us a lot. But spending too much time on it is not healthy. We have to be careful not to be its addict. Friends, please make sure that you don't spend too much time on your mobile or computer.

### Let's Discipline our Screen Time (Digital Well-Being)



#### Let's Observe Our Screen Time



We need not make a table or list to find out the time we spend on our mobile. Now there are many digital well-being Apps for that.

Haven't you seen such videos?

Maybe, you may have come across them on mobile or on computer, mostly on the mobile.

Haven't you used your parent's mobile? What are all the facilities his/ her mobile has?

How often have you used it?

All our online activities are under surveillance. Did you know that? Also, remember that all those activities get stored in the Internet in retrievable form.



## ASSESSMENT

- ♦ What do you call the software for using the Internet in your computer?
- ♦ List out the precautions you need to take when you share online info?



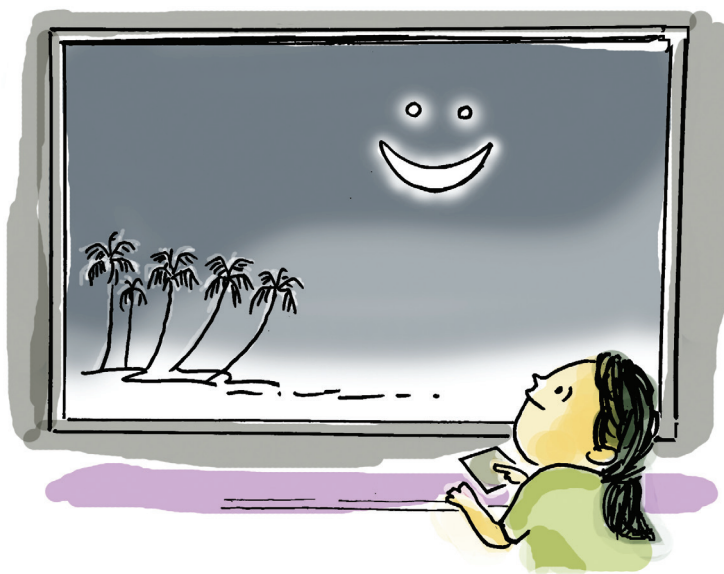
## FOLLOW UP ACTIVITIES

1. Do you spend too much time on your mobile/computer? Find out whether you have forgotten important things to do because of your excessive screen time? Discuss it with your friends.
2. Find out how much time your elders spend on their mobile and list it out.



## Chapter 6

# The Smile in the Sky



### The smiling sky – a unique phenomenon

After the sun set on Monday, the first of December 2008, the spectacle created by Venus, Jupiter and the crescent Moon together in the sky was a unique sight.

We never get tired of the sky lit by the moon and the sea of unending waves, do we? Have you ever observed the night sky for some length of time? Watching the sky on a moon-lit night is an interesting experience. Try it for 10 continuous days and see what happens.

The moon, the planets, the stars and other celestial bodies together create many miraculous phenomena in the sky. When we observe the sky from a specific spot, the sights we see keep on changing day by day. Why do you think it is so?

You have studied ‘eclipses’ in your science classes, haven’t you? Have you ever seen an eclipse?

Of course, solar and lunar eclipses do not occur every day. Even when they happen, we may not be able to see them from where we are.



## Wonders of the Sky



Some rare phenomena can be seen only once in one's lifetime. For instance, the Super Blue Blood Moon which happens only once in 150 years.

Have you heard about the Halley's Comet that appeared in the early 1986? To see it again we have to wait another 76 years.

The smiling sky  
has just vanished.  
Wish I could see it  
again!

I was not born  
when the smiling  
sky appeared in  
Aluva.



It is impossible to recreate such unique celestial phenomena that happen during long intervals of time. But there are now software programs that can simulate such celestial events on computers. Stellarium, Star Tracker, Google Sky and SkySafari are some such programs.

## Stellarium



‘Stellarium’ is desktop planetarium software that can help simulate celestial events.

With its help, we can observe celestial bodies from the earth.

Our computer has the software, ‘Stellarium’ in it. It can show our class the simulations of celestial phenomena. The software helps us see the past and future events in the sky.

Friends, let’s see the phenomenon of ‘Smiling Sky’ with the help of Stellarium. What do you say?

Who are all the characters in this event?

- ♦ The Moon – the satellite of the Earth.
- ♦ The planets, Venus and Jupiter.

### Let’s Open the Stellarium Software

Okay, let’s open the software we call ‘Stellarium’. Hope you have spotted the *toolbar* as shown in *Fig.6.1*

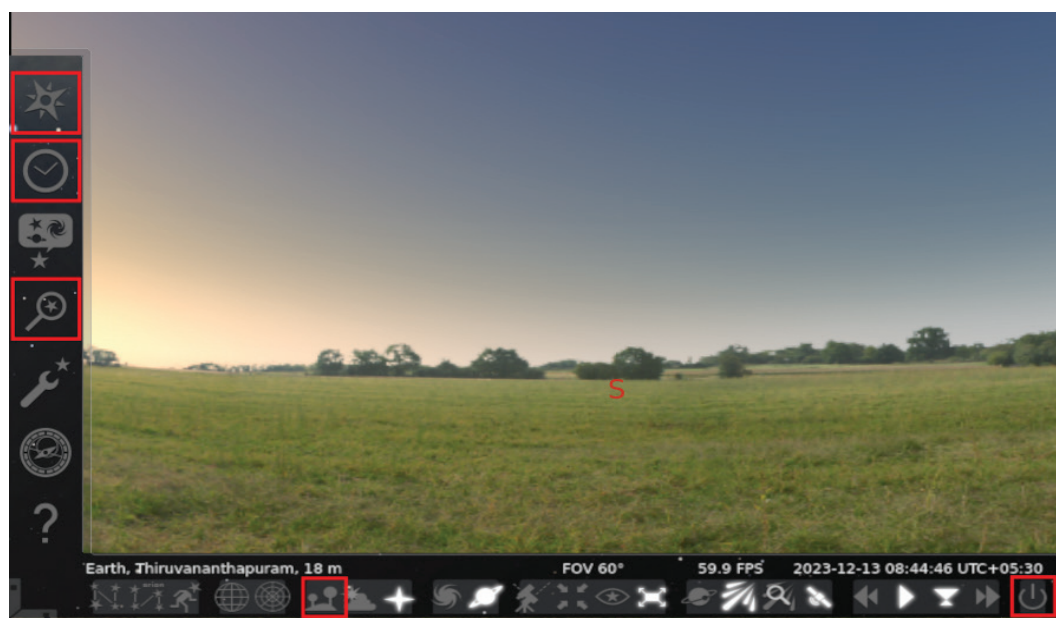


Fig. 6.1 The Stellarium Window

Now, let’s see what settings we need to make in 'Stellarium' to see the ‘Smiling Sky’.

- ♦ Arrange the place where this phenomenon was seen (*Location Window*).
- ♦ Find out the moon (*Search Window*)
- ♦ Arrange date and time (*Date/Time Window*).

Before we proceed, let's be a little familiar with the software. Open 'Stellarium', find out the use of each tool, and complete the table below:

### Toolbars Disappearing?

*Toolbars* can be pinned to the screen by clicking the arrows on the left and bottom of the screen.







Tool	Tool's Name	Use
	.....	To set the place
	.....	.....
	.....	.....
	.....	.....
	.....	.....
	.....	.....

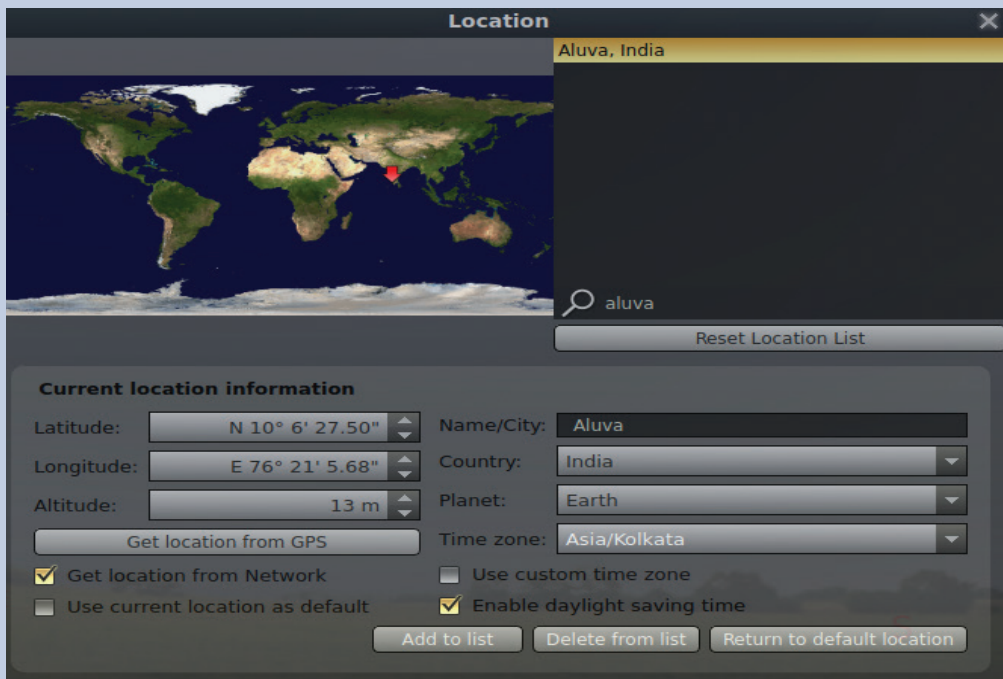
Table 6.1 Tools and usage in Stellarium software

### Let's Locate the Place

With the Stellarium software, we can observe any part of the sky anywhere on the Earth.

Select the location 'Aluva' in the *Location Window*. You can see 'Earth, Aluva' on the left of the screen. What you see is the celestial sight in Aluva.

## To setting up a place in Stellarium



- Select the 'Location Window' from the *toolbar* on the left.
- Type in the name of the place in the window (Type in 'Aluva' to locate Aluva).
- As the list of place pops up, select the place you want (Here, Aluva, India).
- Close the *Location Window*.

We can set the sky in any place to observe, using the Stellarium software.

“What if I want to set a different place?”



### When typing the name of the place

Try setting the place Thiruvananthapuram in the *Location Window*. Type **Thiruvananthapuram** correctly...

### Let's Locate the Moon

To see the smiling Moon, just setting the place won't do. We have to locate the Moon in the sky at that place. Use the '*Search Window*' tool to find the Moon.



Does the Moon appear on the Stellarium screen just the same way as we see it in night sky? Try moving the scroll wheel of the mouse back and forth. Do you see any change? Do you see beside the Moon the other two characters, Venus and Jupiter? Why do you see them?

To see the moon smile, we need to do one more thing. After setting the place and observing the moon, we need to type in the date and time of the event.

### Setting the Date & Time

We can set any date or time in Stellarium. Our date, you may remember, is 01/12/2008. What about the time? It was just after sunset, don't you remember?

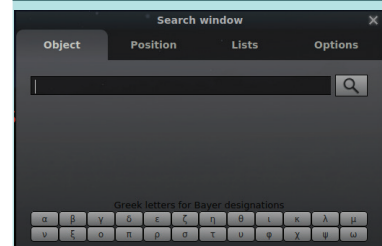
Once you set the date and time, look at the screen. Don't you see a smile in the sky (Fig. 6.2)? The celestial smile which happened long ago is here once again on our computer! Aren't you delighted? Please flash a smile as sweet as the celestial one as you watch it.



Fig. 6.2. The Smile in the Sky on the screen

Using the Ground Tool shown in Fig. 6.1., remove the ground and observe the sky.

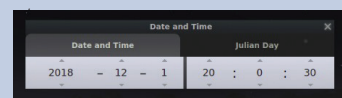
### Locating the Moon



Select the 'Search Window' tool and type in 'Moon'.

### Setting the Date and Time

- ♦ Select the 'Date & Time Tool' from the tool bar.
- ♦ Using mouse and arrow keys, select the date (01/12/2008).
- ♦ Similarly, set the time



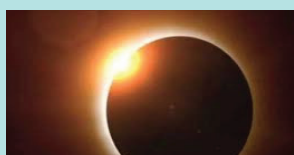


## Setting the Celestial Bodies in the Centre

The tool, 'Center on Selected Objects' enables us to place the celestial objects in the centre.



## Diamond Ring



During a solar eclipse, the Sun is sometimes completely hidden by the Moon. We then call the eclipse 'Total Solar Eclipse'. The corona (the Sun's atmosphere) is visible only during the total eclipse. At this time, the sunlight reflected by the moon appears to the people on the Earth like a diamond ring. The phenomenon is therefore called 'Diamond Ring'.

Now, select Kochi as the location and observe the sky using the same date and time.

The table below shows some locations, date and time. Set them in Stellarium and observe the Moon. You can use other location as well.

Place	Date	Time
Kozhikode	01.12.2008	.....
Thiruvananthapuram	01.12.2008	.....
Alappuzha	01.12.2008	.....
Bengaluru	01.12.2008	.....
Durgapur	01.12.2008	.....

Table 6. 2 'The Smiling Sky' in different locations

## The 'Diamond Ring' on our Computer

Another unique celestial phenomenon is that of the 'Diamond Ring' which is a special kind of solar eclipse. Go to the *Search Engine* in the Internet and type in 'Diamond Ring phenomenon' to find out where and when such an event had happened. List the location, date and time in the table below.

Date	Spot	Time
	.....	.....
	....., Kerala	.....

Table 6.3. Data about the Diamond Ring

Now, use the Stellarium to simulate the phenomenon of Diamond Ring in your classroom.

What are the settings you need?

- ♦ Location - .....
- ♦ Date - .....

- ♦ Time - .....
- ♦ Which celestial body to be observed?

After observing the solar eclips, you can try changing the location and time (minutes). List out the differences you see in the eclipse as location and time change.



## ASSESSMENT











- ♦ Which tool in the Stellarium can we use to simulate a sight from a specified place?
  - a) Location Window
  - b) Date/time Window
  - c) Search Window
  - d) Configuration Window
- ♦ Select the tool we can use to simulate a lunar eclipse in the day time?
  - a) Ground
  - b) Atmosphere
  - c) Configuration Window
  - d) Center on Selected Object



## FOLLOW UP ACTIVITIES

1. Set in the Stellarium the following data to simulate a solar eclipse.  
Location: Chennai; Date: 9 September 2053; Time: 3.30 pm onwards.  
What kind of solar eclipse do you see?
2. Set the data below in the Stellarium and observe the Moon.  
Location: Angamali, India  
Date: 28/07/2018  
Time: 00. 05 am

Also, record how the Moon appears in different times

00.05	00.15	00.30	00.45	1.15	1.30	02.00	02.25	03.15	03.45	Kind of Lunar Eclipse
										.....



## Chapter 7

## The Atlas on your Fingertips



As you reach Sairandhri in the Kor Forest, the way it metamorphoses itself is astounding - extremely rare creatures of the sky including frogmouths, pigeon sparrows, blue parrots and humming birds... butterflies, snails and bumble bees... thousands of plants and rare specimens of orchids. It would seem that the forest is inviting you into its heart with its creeping plants and sky-high trees.

- A Journey through the Lap of Silent Valley

Haven't you read this excerpt from Ramya S. Anand's travelogue, A Journey through the Lap of Silent Valley, which details her experience of travelling through the Silent Valley?

Teeming with biodiversity, the Silent Valley is a part of the Western Ghats - a Mountain range that lays along the western border of the Indian Peninsula and parallel to the Arabian sea. Let's investigate.

Apart from Kerala, the mountain range of Western Ghats shares its boundary with other states as well. The atlas will help us find them.

Along with the usual maps, there are now digital maps we can use in Geography study.

KGeography in our computer is such a map.

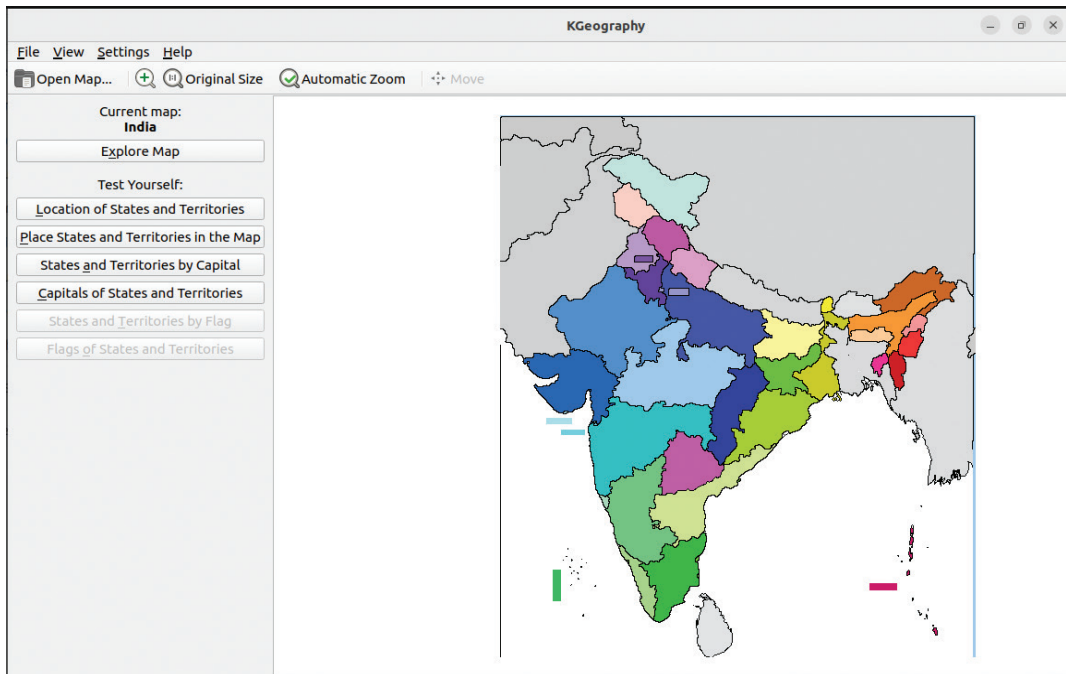


Fig. 7. 1. KGeography Software Window

### KGeography

KGeography is a software used for the study of Geography. A number of things such as the boundaries of country, flags, names of States, districts etc. can be found out using KGeography. This software also contains games for self-learning.

Using KGeography, can you find the States that share the Western Ghats?

### Let's Find out the Sahya

Take look at the maps given (Fig.7.2). The states sharing the Western Ghats are shown in green.

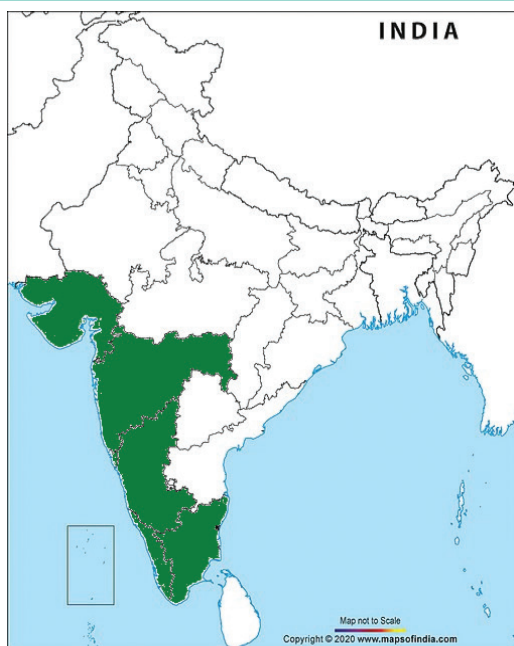


Fig. 7.2.

**States Sharing the Western Ghats**

Fig.7.3 shows the map of India included in KGeography. The maps in KGeography can give you more details about the states where the Western Ghats are seen.

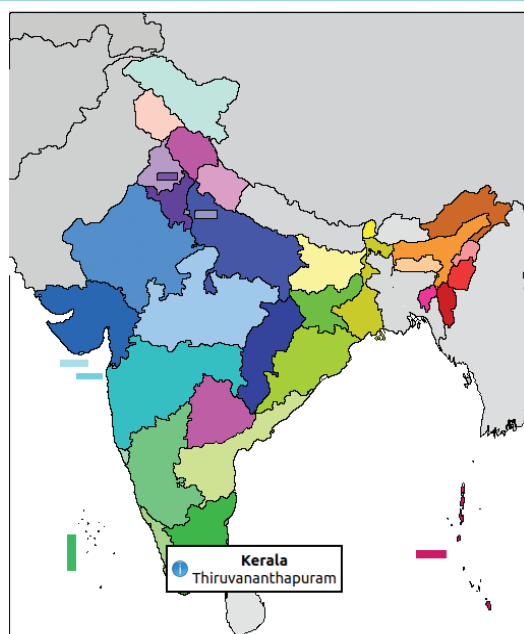
Complete the table (*Table 7.1*) below by filling in the states and their capitals marked in green in Fig.7.2. Do this activity using the map in KGeography.

**Finding Capitals in KGeography**

Open the KGeography software to get India's map. Click on any State. You can see the name of the State and its capital pop up.



Fig. 7.3.

**India's Map in KGeography**

Name of the State	Capital

Table 7.1 List of Capitals

### To Open a Map in KGeography

- ♦ Open the KGeography software.
- ♦ Click on the option, '**Open Map**'.
- ♦ The window '**Choose Map to Use** → **KGeography**' will pop up.
- ♦ Select the map you need from it.

### Let's Play a Quiz

You have already made table of the states where the Western Ghats are found and their capitals. Now, let's play a quiz about the districts in Kerala. How do we go about it?

- ♦ Open Kerala's map in KGeography (Search).
- ♦ (Type in '**Keralam**' in '**Search**' to open it, the same way as you have opened India's map using the '**Open Map**' device.)
- ♦ Click on '**Location of District**' in the category of '**Test yourself**'.
- ♦ Select the number of questions you want and click '**OK**'.
- ♦ Look at the name of the district at the left bottom.
- ♦ Click on the map above that district.
- ♦ If your answer is correct, "Correct Answer" will flash in green; if it is wrong, there will be a red flash.



### Changing the language of KGeography

Once you open the software, go to the menu in the settings and select 'Configure Language'. When the window opens, change the 'Primary Language' to the language you need.

- ♦ When the name of the next district appears, repeat what you did before.
- ♦ Continue thus till all the questions are over.

### Enlarging the Map

We can enlarge the map by holding down the *Ctrl* key on the keyboard and scrolling the wheel of the mouse. To get the original size of the map, go to the menu and select 'Original Size'.

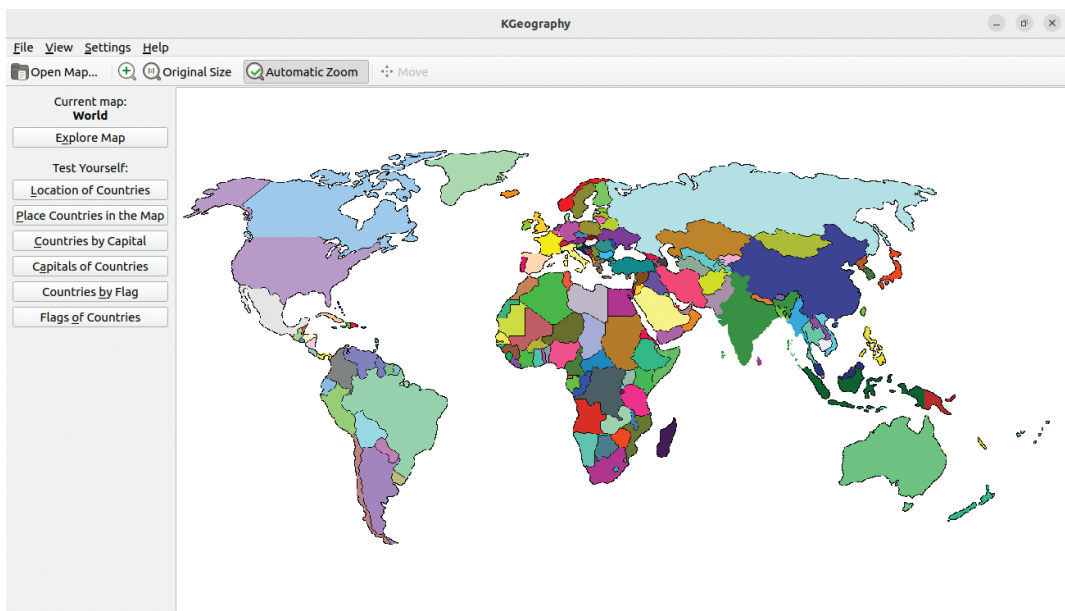


Fig. 7. 4. When a map is opened in KGeography

## Our Neighbours

Ours is a big nation that shares lengthy borders of land with several other nations. Using KGeography, could you find out our neighbouring nations that share land borders with us?



- ♦ .....
- ♦ .....
- ♦ .....
- ♦ .....
- ♦ .....
- ♦ .....
- ♦ .....
- ♦ .....



### To Know More

To know more about nations/ states, KGeography maps have links to Wikipedia pages. To get this,

- ♦ Open KGeography and click on the map..
- ♦ A box displaying the name of the name of the map will pop up.
- ♦ Click on the blue circle in the box; you will be taken to the Wikipedia page for that nation/state. (Your system needs to be connected to the Internet).



### ASSESSMENT

- ♦ Using KGeography find the nations that share borders with the following States and complete the table:

States	Neighbouring Nations
West Bengal	
Sikkim	
Arunachal Pradesh	

- ♦ Use KGeography to find out the facts about the following and make a note of them:
  - a) States of India that have no sea coast.
  - b) States of India that share border with China.



## FOLLOW UP ACTIVITIES

1. Go to the section 'Test Yourself' in KGeography to play the game of 'Capitals of States and Union Territories'.
2. Using KGeography, complete the table below by filling in the area of the given countries. You can use the Wikipedia link.

Country	Area
Canada	
The United States	
Brazil	
Argentina	
Madagascar	
Australia	



## Chapter 8

# Storytelling and Story Listening



### E-Cube English Language Lab

E-Cube English Language Lab is a software to help you improve your English language proficiency. It has four levels for language learning. The activities for students of standard V can be found in Level-3. To enter the Lab, you need a user name and a password. For instance, the first student of V A will have the user name and password 5a1.

Today, children like Risna and Maneesha have come to school in silk skirts. They have made a fine floral pattern in their classroom to celebrate the festival of Onam. Their teacher appreciated their effort.

As everyone was waiting eagerly for the feast to follow, the teacher posed a question:

“Which is your favourite item in the feast?”

“Payasam, jaggery crisps, sambar, mixed vegetables, ginger soup”

There was a riot of response.

“Does anyone of you know the recipe for any one of these items?” The teacher asked again.

This time the response was silence.

“You should also know how to prepare

these items, shouldn't you? See, our Bhavya knows."

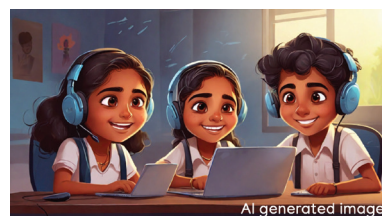
"Who is Bhavya, ma'am?" Everyone was curious.

"Bhavya is a brilliant girl who taught grandma to cook Rainbow Sambar."

The teacher told the children that E-Cube English Language Lab has Bhavya's story and that the story will teach them to cook sambar. When they heard it, all of them wanted to hear the story then and there. Let's also listen to the story.

## Listening Story

You are already familiar with the English Language Lab that contains interesting stories. The stories are arranged according to the level of classes. Let's see what stories are there in Level-3. With the help of your teacher, open Bhavya's story in Level-3.

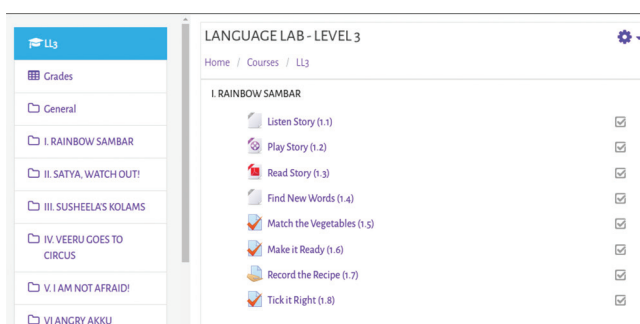


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Fig. 8.1. Language Lab Main Window

Hope you can find here the Rainbow Sambar.



**Fig. 8.2. E-Cube; The Window to Select the Story**


There are a few activities below the story. Have a look at them.

- ♦ What should be selected to listen to a story?
- ♦ What differences do you see when you select?

Complete *Table 8.1*.

Listen Story	Let's listen
Play Story	
Read Story	

**Table 8.1. E-Cube activities**

If you can see expressions and gestures as you listen to a story, that will be great, won't it? To see them click on the button  Play Story (1.2) .



**Fig. 8.3 E-Cube : List of Activities**

You have heard the story, haven't you?  
What are all the features that make the story interesting?


- ♦ Expressions of emotions.
- ♦ Voice modulation.
- ♦ .....

Now, answer the questions below:

- ♦ How did Bhavya prepare sambar?
- ♦ What is so special about her sambar?
- ♦ Which are the vegetables with rainbow colours?

Let's do some interesting activity related to this cooking. What do you say?

### Let's Find out some special features of vegetables.

Click on the button  [Match the Vegetables \(1.5\)](#). You get the pictures of vegetables. Look at them and complete the assignment below:

#### Match the Vegetables - Lets do the activity.

- ♦ Click on the button  [Match the Vegetables \(1.5\)](#).
- ♦ When the vegetables pop up drag them into the boxes to match their features.
- ♦ When the task is over, click '**Finish Attempt**'
- ♦ To repeat the activity, click '**Return Attempt**'. To submit the task, click, '**Submit all and Finish**'

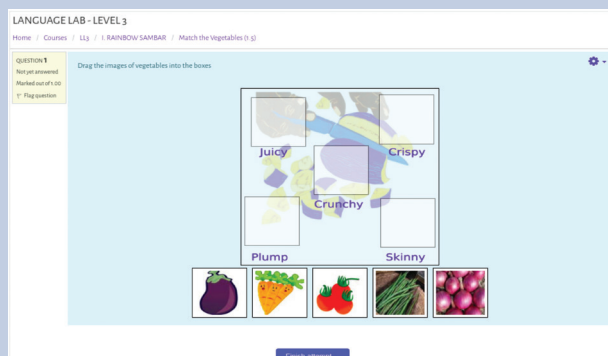


Fig 8. 4. Match the images appropriately

- ♦ Once you submit, your marks for the task will appear in a window.

Have you completed the task? If you have, what is difference between ‘Juicy’ and ‘Crunchy’? Note it down below:

.....

.....

### To improve performance

After you submit your assignment, the window that opens will display your marks according to your right answers (10.00 out of 10.00 – 100%). You can improve your performance even after your submission.

#### To Repeat the performance

- Click the **Finish review** button to repeat the task.

The screenshot shows a quiz review interface. On the left, a table displays quiz statistics: Attempts (1, 2, 3, 4), Started on (Saturday, 23 December 2023, 2:37 PM), State (Finished), Completed on (Saturday, 23 December 2023, 3:35 PM), Time taken (57 mins 59 secs), Marks (0.60/1.00), and Grade (6.00 out of 10.00 (60%)). The main area shows 'QUESTION 1' with the instruction 'Drag the images of vegetables into the boxes'. Below this is a matching exercise with five vegetable images and five labels: 'Juicy' (eggplant), 'Crispy' (onions), 'Crunchy' (broccoli), 'Plump' (tomatoes), and 'Skinny' (asparagus). On the right, a 'QUIZ NAVIGATION' panel shows a 'Finish review' button.

Fig. 8.5. The Window Displaying the Correct Matching

- You can do the task again in the Window that pops up.


### Let's Find Out the Order of Recipe

You know now the ingredients for making sambar. Also, you know how to cook Rainbow Sambar on hearing the story. Shall we try cooking it? If you have still some doubts, listen to the story again. To start cooking click on the button **Make it Ready (1.6)**.



Now that you have learned how to cook sambar, read the notes below to be familiar with its recipe:

### To do the task, 'Make it Ready'

- Click on the button  **Make it Ready (1.6)**.
- The window that opens displays the recipe in wrong order. Drag each word into the box in the correct order.

LANGUAGE LAB - LEVEL 3

Home / Courses / LL3 / I. RAINBOW SAMBAR / Make it Ready (1.6)

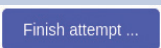
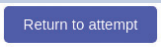

**QUESTION 1**  
Not yet answered  
Marked out of 1.00  
Flag question

You have heard the story Rainbow Sambar. Some sentences from the story are given in jumbled order. Arrange the sentences in the correct order.

- 
- 
- 
- 
- 
- 
- 


Put them in pot	Allow them to sizzle and simmer
Wash dal and vegetables	Add brown tamarind and spicy yellow sambar powder
Chop with blue knife	Rainbow sambar is ready.
Fry them, add water and stir them.	

**Fig.8.6. Let's Put Them in the Right Order**

- Click  when you complete the task.
- Click  if you want to do it once more. If you don't want to repeat, finish the task by clicking the button .
- Now, the window displaying your marks will pop up.

### Let's Record

You have now put the recipe in the right order. Suppose you want to share it with your friends? What can you do? Yes, let's record it. The Language Lab also has the facility to record.

Remember that voice modulation is important when we record our voice. Click on  **Record the Recipe (1.7)** button and finish your task.



Excellent! Now you can also cook Rainbow Sambar just like Bhavya. Try to finish other activities in the story with the help of your teacher.



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## To Record the Audio

- ♦ Click on . Click on that pops up.
- ♦ Select the button from the **Editor** window that pops up.
- ♦ Record clicking on in the **Record Audio** window. Click on to finish recording.

Time taken	5 mins 2 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

**QUESTION 1**

Correct

Mark 1.00 out of 1.00

Flag question

You have heard the story Rainbow Sambar. Some sentences from the story are given in jumbled order. Arrange the sentences in the correct order.

- 1-  ✓
- 2-  ✓
- 3-  ✓
- 4-  ✓
- 5-  ✓
- 6-  ✓
- 7-  ✓

Fig. 8. 7. Let's Record

- ♦ To save recording, click on .
- ♦ When the **Editor** window pops up, click on to submit.



## ASSESSMENT

- ♦ Trace the steps you have passed while doing activities in the English Language Club.
  - a) Story Telling
  - b) .....
  - c) .....
  - d) .....
- ♦ Some aspects of Audio Recording are given below. Find out which of them is not a step.
  - a) Expressing your emotions and speaking clearly.
  - b) Avoiding external sound.
  - c) Dress neatly while recording.
  - d) Recording after enough practice.



## FOLLOW UP ACTIVITIES

1. “Sathya is a naughty boy. He can never keep himself quiet. His Appa, Akka and Thatha always give him advice.” Read the story ‘Satya, Watch Out!’ and record it.
2. Veeru was taken by his grandparents to the Jumbo-Bumbo Circus. When he came back, he acted out the circus for the benefit of everyone at home. To know about his act, read the story, ‘Veeru Goes to the Circus’ in the English Language Lab. Complete the activities in the story with the help of your teacher.



# CONSTITUTION OF INDIA

## Part IV A

### FUNDAMENTAL DUTIES OF CITIZENS

#### ARTICLE 51 A

*Fundamental Duties - It shall be the duty of every citizen of India*

- a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievements;
- (k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between age of six and fourteen years.

## CHILDREN'S RIGHTS

*Dear Children,*

*Wouldn't you like to know about your rights? Awareness about your rights will inspire and motivate you to ensure your protection and participation, thereby making social justice a reality. You may know that a commission for child rights is functioning in our state called the Kerala State Commission for Protection of Child Rights.*

*Let's see what your rights are:*

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• Right to freedom of speech and expression.</li><li>• Right to life and liberty.</li><li>• Right to maximum survival and development.</li><li>• Right to be respected and accepted regardless of caste, creed and colour.</li><li>• Right to protection and care against physical, mental and sexual abuse.</li><li>• Right to participation.</li><li>• Protection from child labour and hazardous work.</li><li>• Protection against child marriage.</li><li>• Right to know one's culture and live accordingly.</li></ul> | <ul style="list-style-type: none"><li>• Protection against neglect.</li><li>• Right to free and compulsory education.</li><li>• Right to learn, rest and leisure.</li><li>• Right to parental and societal care, and protection.</li></ul> |
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### Major Responsibilities

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- Protect school and public facilities.
- Observe punctuality in learning and activities of the school.
- Accept and respect school authorities, teachers, parents and fellow students.
- Readiness to accept and respect others regardless of caste, creed or colour.



*Contact Address*

**Kerala State Commission for Protection of Child Rights**

'Sree Ganesh', T.C.14/2036, Vanross Junction

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Website : [www.kescpcr.kerala.gov.in](http://www.kescpcr.kerala.gov.in)

**Child Helpline - 1098, Crime Stopper - 1090, Nirbhaya - 1800 425 1400**

**Kerala Police Helpline - 0471 – 3243000/44000/45000**

*online R.T.E Monitoring : [www.nireekshana.org.in](http://www.nireekshana.org.in)*