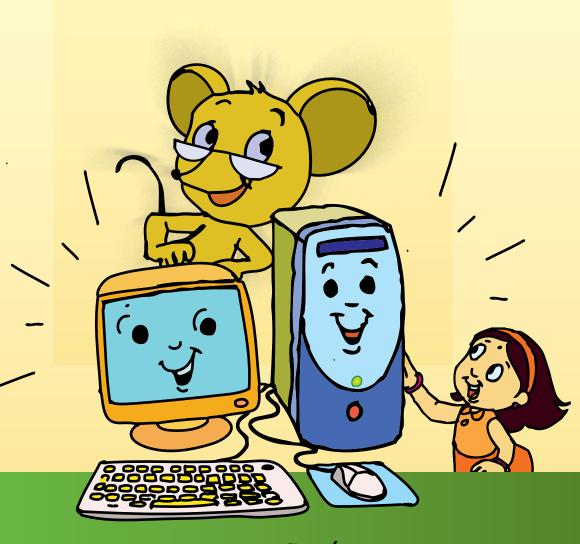
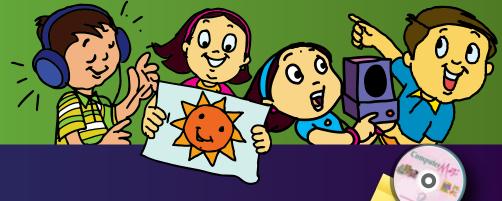
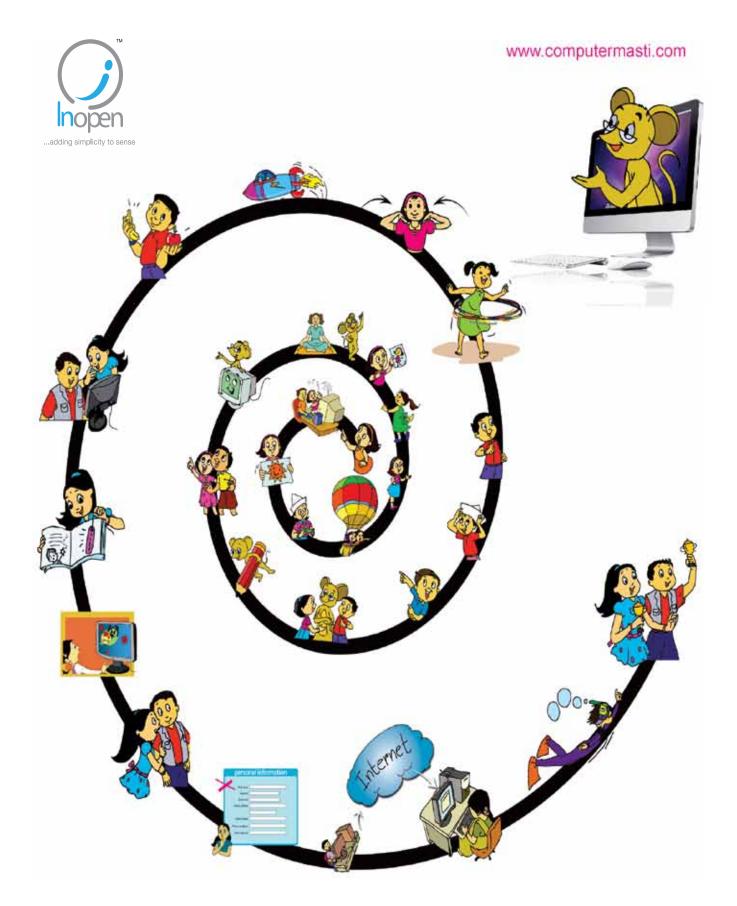
# Computer

LEVEL









## A Collaborative Product from IIT Bombay and InOpen Technologies





Created at:
Department of Computer Science & Engineering
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#### **About This Book**

This book has evolved out of contributions from many authors, bringing together a variety of creative ideas. The salient features of this book are:

- The book is based on a detailed computer science syllabus that has been reviewed by many experts. This syllabus is available for download from <a href="https://www.computermasti.com">www.computermasti.com</a>.
- Establishing clarity of thought and developing computer fluency is the main objective of Computer Masti.
- Fun is an important elelment of learning.
- The lesson contents are woven around interactions between an imaginary teacher and two students.
   The teacher mostly asks questions that guide the students to discover and learn topics on their own.
- Each lesson focusses on specific concepts and associated skills. These concepts are selected such that: (i) They lay a strong foundation for learning computers. (ii) They contribute towards general intellectual development, and (iii) They are age appropriate.
- The Worksheets and Activities are designed in such a way that they supplement topics being covered in other subjects, to the extent possible. Group activities are included in each lesson to encourage collaborative learning. Projects are also suggested to reinforce the learning of topics across multiple lessons.
- 21st century skills of critical thinking, collaboration, communication and creativity are addressed in the lesson content and supplementary activities.
- The book meets the standards suggested for continuous and comprehensive evaluation (Right to education).
- The lessons and activities are based on free and open source software. The Computer Masti Toolkit (in the CD) is easy to install on commonly used operating systems.
- The book includes child friendly illustrations that are sensitive to body image and gender issues.
- Each Lesson has a Teacher's Corner section, which gives a lesson plan outline, some dos and don'ts, and pointers to when each worksheet has to be given to students.
- Emphasis of healthy computer practices, including SMART rules of Internet safety, AWARE guidelines for responsible use of Internet resources are addressed in the lesson content and supplementary activities. Poster about these are available on the website. You can put these on the display boards. This would serve as quick reference and memory trigger for the students.
- The online (e-book) version is available freely for individual use, under the conditions described earlier in the Copyright Statement. You may download it from: <a href="www.computermasti.com">www.computermasti.com</a>.
- Comments on the book and suggestions may be sent to Sridhar Iyer (sri@iitb.ac.in).

#### **Acknowledgements:**

This second edition is a result of incorporating several suggestions by Sahana Murthy and Farida Khan. We are thankful to Meera Hirani, Neela Srinivasan, Manjesh Kumar, Moushumi Pati, Srinath Perur and Sanjivini Salunkhe, for their contribution to the preliminary content, prior to the first edition. We are also thankful to Vaijayanthi Sarma for her meticulous review during the first edition. We acknowledge the support provided by Rekha Kale and Pravin Ingle.

We are grateful to IIT Bombay for support during the creation of this book. We are also grateful to the SSRVM Trust, especially the staff of SSRVM Mulund, for support during the pilot implementation. Last but not the least, the teachings of Sri Sri Ravishankar have been a major source of inspiration for this book.

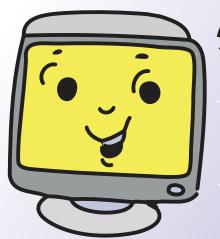


#### How To Use This Book

This book is meant to be used for teaching computers to children in a way that is mostly fun (as indicated by the "Masti" in the title). The teacher's role is primarily that of a facilitator encouraging active learning. Specific guidelines for each lesson can be found in the Teacher's Corner of each lesson. Ensure that the conceptual understanding is mastered before proceeding to the skills. Allow students to play educational computer games included in each lesson in order to reinforce learning of the concepts/skills covered in the lesson. In the computer lab, if they are doing activities in groups, ensure that they switch "drivers" frequently, so that each student gets to do a fair amount of the computer based activities. The Worksheets include exercises to inculcate higher order thinking skills. Use the Group Activities and Projects to stimulate creativity and knowledge sharing. The book is designed so that it can be covered comfortably in one year, with one class (30 to 45 minutes) per week. See the table below for an overview of the concepts, skills and values covered in each lesson along with a week wise schedule.

Lesson No.	Topic Name	Concepts	Skills	Values reinforced	Weeks
1.	Revision of Level I	o Uses of a computer	o Identification of parts o Correct usage	o Observation o Awareness	1st <sub>- 4</sub> th
2.	Input and Output Devices	o Input, Output	o Mouse movement skills	o Sharing	5th <sub>- 7</sub> th
3.	Remain Healthy while using Computers	o Correct ways to use computers	Exercises for o Shoulders o Hands o Neck o Eyes	o Importance of taking care of health o Importance of Exercises o Taking precautions	8th <sub>- 10</sub> th
4.	Activities using a Mouse	o Organization o Grouping of similar objects o Folder o Naming of files	o Creating a new folder o Moving files into a folder o Drag and drop of Mouse o Organizing icons on Desktop	o Taking turns o Team work	11 <sup>th</sup> - 13 <sup>th</sup>
5.	Activities using Paint	o Revision lesson	o Using features of an activity		14 <sup>th</sup> - 16 <sup>th</sup>
		REVISION			17 <sup>th</sup> - 19 <sup>th</sup>
6.	Activities using a Keyboard	o Functions of Keys o Change the written text	Using o Arrow keys o Delete o Backspace o Caps lock o Page Up/Down	o Helping each other	20 <sup>th</sup> - 22 <sup>nd</sup>
7.	Basic Features of Text Editor	o Reuse [ copy ] o Edit	How to o Copy o Cut o Paste o Undo	o Take turns o Share the resources	23rd <sub>- 26</sub> th
8.	Computer Start up and Shut down	o Start up o Booting o Login/Password o Logout o Shut down	o Start a PC o Enter Login o Enter password o Shut down PC	o Taking permission before doing an activity	27 <sup>th</sup> - 29 <sup>th</sup>
9.	Projects				30 <sup>th</sup> - 32 <sup>nd</sup>

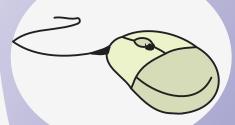




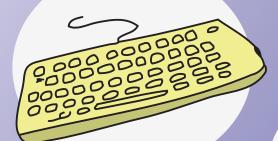
Start

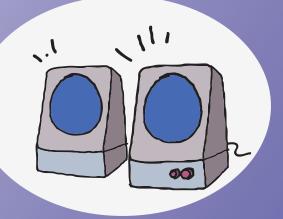








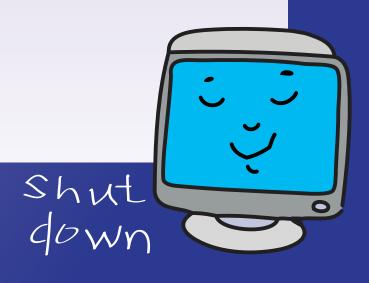






## Contents

Sr. No	Name of the lesson	Page Number		
0.	Last year	1		
1.	Revision of Level I	2		
2.	Input and Output Devices	16		
3.	Computers and your Health	24		
4.	Activities using a Mouse	38		
5.	Activities using a Keyboard	50		
6.	Activities using Paint	62		
7.	Editing Text	68		
8.	Computer Start Up and Shut Down	82		
9.	Projects	92		





### Legends used in the book

Indicator	Explanation			
= Am	Lists the topics covered in the lesson.			
CONCEPTS	Explains the concept discussed in that section of the lesson.			
atula	Gives step by step instructions to do a task (on the computer) in the application being discussed.			
Guidelines	General recommendations that help to achieve a certain goal.			
Info	Provides information and/or additional details about a skill or concept.			
	Lists the expected measurable learning objective to be attained by the student after learning the topic.			
	Pages with this icon has Worksheets; that test extent to which learning objectives of the lesson are attained.			
A CONTRACTOR	Pages with this icon has Activities, which reinforces students' learning.			
Projects	This icon represents after class collaborative activities to be presented later in the class for discussion and/or review.			
	This image has tasks students can do to gain additional knowledge on the topic of the lesson.			
Teacher's Corner	Pages with this icon gives pointers to the teacher on how to teach the lesson.			
	This icon points to a list of websites that can be referred for self learning.			

Black Italic text	Search Keyword, examples and Web site address.
Bold black text	New word introduction.
<b>Bold Orange text</b>	New Technical term introduction.



Tejas and Jyoti met Moz, in the computer lab of their school. Moz offered to teach the use of computers to the two children. The children had a great time with Moz, learning about computers and doing several activities on computers. Just before the vacation, the children gave a Table Tennis toy set to Moz.

Today....

School has just reopened after the summer holidays. Tejas, Jyoti and Moz are talking about what they did during their vacation.

Jyoti: Hello Moz, How are you? How did you spend your holidays?

Moz: I practised playing Table Tennis. One of my friends also played with me. I really enjoyed it. Thanks. Where did you two go during the holidays and what did you do?

Tejas: I went to meet my grandparents in New Delhi. It is the capital of India. I saw the Qutub Minar and the Red fort.

Jyoti: I went to Kanyakumari with my cousins. We saw the Vivekananda Rock. It is a beautiful place.

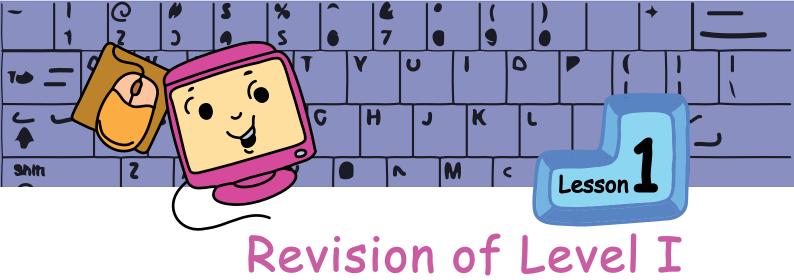
Moz: Did you complete the projects of class I? Tejas: Yes, we did. Here are some photographs of what we did.

Moz: That is very good. Do you remember what we learnt last year?

Tejas: Yes. I taught my grandparents to use a computer, to sketch and paint.

Tejas and Jyoti: We want to learn more! Moz: We can start tomorrow. Chin Chinaki...







In this lesson you will:

Revise the topics learnt in the previous level.

Moz walks in and sees that Jyoti is wiping the monitor with a soft duster while Tejas is wiping the CPU.

Moz: Hello children. Let me help you in keeping the computers clean. I will also check the connections. Meanwhile, you write about the uses and parts of a computer. I have kept some sheets of paper on the desk.

#### Uses of a Computer

A computer can be used for many simple tasks like:

- Drawing pictures
- Writing letters
- Playing games

- Adding numbers
- Watching movies and cartoons
- Listening to music

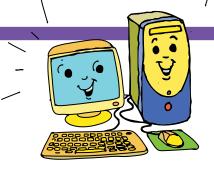
#### Parts of a Computer

Tejas writes about the CPU and the mouse. Jyoti writes about the monitor and the keyboard.

#### **CPU**

CPU (Central Processing Unit) is the most important part of a computer. It does all the tasks that we want the computer to do.





It controls all the other parts, such as the Monitor, Keyboard and Mouse. These parts have to be connected to the CPU, for them to work.

#### Monitor

A monitor looks like a television screen. The CPU uses the monitor to show us photos, movies, games, and other activities. The mouse pointer can be seen on the monitor. Often, whatever we type using the keyboard, can be seen on the monitor.



#### Keyboard

A keyboard is used to write on the computer. We can also use a keyboard to give instructions to the computer. The buttons on the keyboard are called 'keys'. The keys on which we see:

- alphabets A Z, are called alphabet keys.
- numbers 0 9, are called number keys.
- keys with words like Enter, Backspace are called special keys.

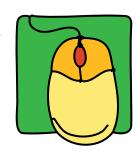
#### While typing, use the:

- Space bar to leave some space between alphabets or numbers.
   This is usually the longest key in the bottom row and has nothing written on it.
- Backspace key to erase. This is usually the last key in the number row.
- Enter key to move to the next line. This is found at the end of the middle row of alphabets.

#### Mouse

A mouse is used to select an item shown on the monitor. The mouse usually has two buttons and a small wheel between the buttons.

- To select an item, we first point to the item and then click the left button.
- To start an activity, we double click the left button.
- To control an activity, we click the right button.
- To move up and down a page, we use the wheel or scroll button.



Tejas: We have finished. Now can I paint using the computer?

Jyoti: I want to listen to music.

Moz: Ok. Go ahead. You know how to start an activity.

#### Paint activity

Tejas <u>double clicks</u> on the paint icon. The paint activity window opens.

Tejas first opens an existing file and plays with the colours.

Then he creates his own painting. He knows that:

- The tools for drawing can be found under Tools.
- A set of tools is called a Toolbar.
- The various choices in any Toolbar are called the Options.

The tools and options that Tejas uses to draw a house are:

- New option to get a blank canvas.
- Shapes toolbar to get shapes like square, rectangle and triangle.
- Brushes toolbar to colour using the colour palette.
- Eraser to erase.
- Save option to save the painting.
- Print option to print the painting.
- Quit option to quit the activity.



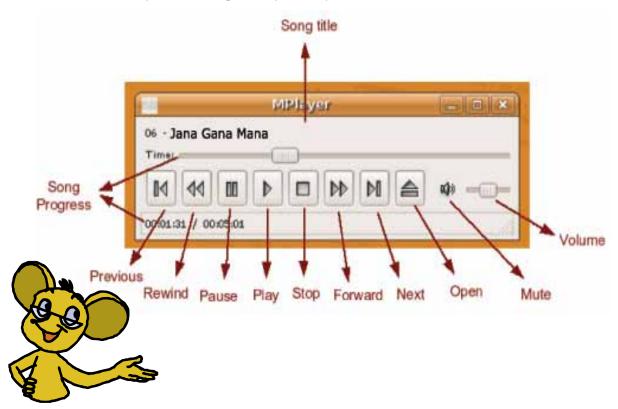
#### Using a Music Player



Jyoti <u>double clicks</u> on the music file. She knows that she can control the music player by moving the mouse pointer over the control buttons.

#### This is what she clicks:

- Open option to select the song that she likes.
- Play to play the song.
- Pause to stop the song and practice that line.
- Pause or Play again to continue the song from where it had stopped.
- Rewind and Forward to jump to a different part of the song.
- Mute to turn off the volume.
- Slider to change the volume.
- Stop to stop the song completely.



The children spend their free period in the computer room. Tejas saves the painting and Jyoti sings the song that she has learnt.

Moz: Very good. The song is melodious. The painting is very colourful.

#### Dos and Don'ts

Tejas: Let us share our snacks and eat now.

Moz: While we are eating let us play a word game. I will give you a few words and one of you has to say how they are related to a computer. Tejas and Jyoti: Oh! This is going to be fun. Let us start.

#### Moz: Be Safe.

Tejas: A computer works on electricity. Ask the teacher to turn the computer on or off.

#### Moz: Be gentle.

Jyoti: A computer is delicate. Press softly on the keys of the keyboard. Do not pull the wires of a computer.

#### Moz: Keep clean.

Tejas: A computer is sensitive to dust. Keep the computer and its surrounding area clean. Do not eat or drink near the computer.

#### Moz: Keep correct posture.

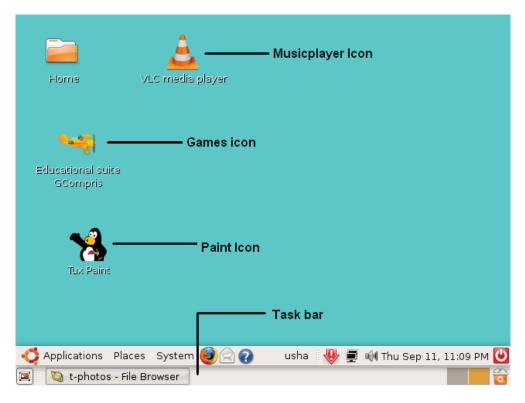
Jyoti: Sit on a chair with proper height and sit straight. Sit at a proper distance from the monitor. Do not keep your hand on the mouse continuously.

Moz: That was good. Now let us go back into the computer room.

Moz gives Jyoti and Tejas some worksheets about the Desktop.

#### Exploring the Desktop

- The small pictures that we see on the screen are called Icons.
- The screen where all the icons are arranged is called the Desktop.
- Icons of activities that we use often are kept on the desktop.
- The bar at the bottom of the desktop is called the Taskbar.



#### Window

- To start an activity <u>double click</u> on the activity icon on the Desktop.
- The activity window opens on the Desktop.
- More than one activity can be started at a time.
- Whenever you click on a window, the computer brings it in front and allows you to use that activity.

#### Close and Minimise a window

 button at the top right corner of a window is used to close the activity.



 button at the top right corner of a window makes the window very small.

#### Taskbar

- The bar at the bottom of the Desktop is called the taskbar.
- When you open any activity, a small window of that activity appears on the taskbar. This is called a tab.
- The Taskbar has one tab for each window on the Desktop.
- All the activities that have been started can be seen in the Taskbar.
- Clicking an activity tab on the Taskbar will bring that window to the front.

#### Title bar

• The top bar of a window is called the **Title bar**.

 You can recognize the activity in a window by the title in the title bar.



#### Wallpaper

• The picture on the desktop is called the Wallpaper.

 A <u>right click</u> on the desktop brings up a dialog box. One of the options allows you to change the wallpaper.



Sounds produced by the computer or songs played on it are heard through the **Speakers**.

A **Printer** helps you to print what you see on the

A **Printer** helps you to print what you see on the monitor.

Tejas: Sometimes when we click on print, the computer does not print. Is it because the printer is not connected?

Moz: We will explore this tomorrow.

Chin Chinaki...





1. Munmun, the squirrel is searching for the following words. Help her by circling the words.

1. Desktop	5. Icon	9. Wallpaper
2. Taskbar	6. Quit	10.Titlebar
3. Click	7. Open	11. New

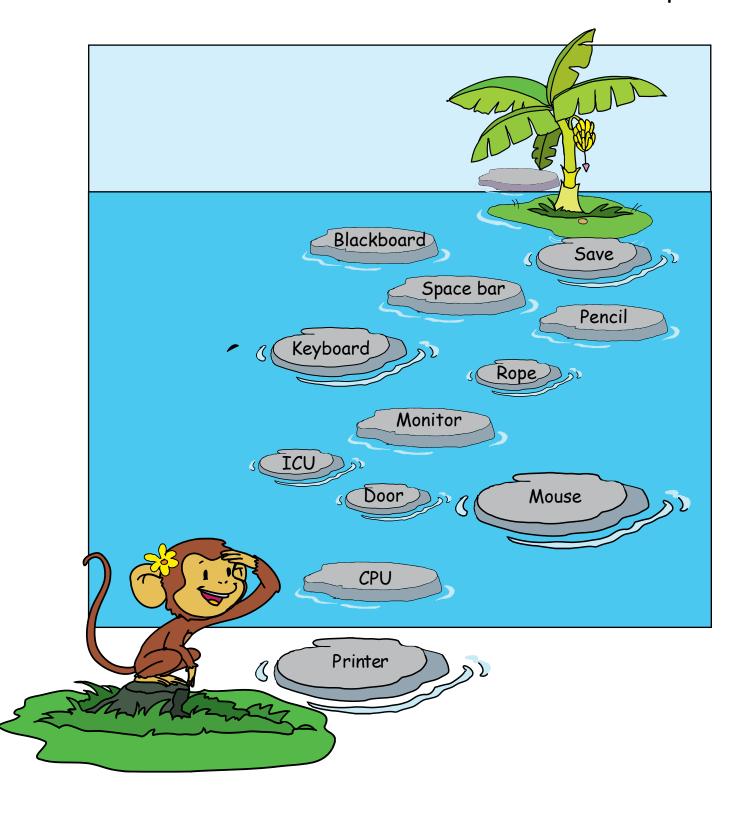
4. Window 8. Save 12. Close

W	G	Н	K	D	Е	5	K	T	0	Р
I	С	0	N	Е	Χ	У	0	Р	V	Α
N	L	W	Е	X	I	Т	В	Н	Т	5
D	0	Τ	W	Α	L	I	M	K	Α	В
0	5	У	Q	U	I	Т	0	5	5	С
W	Е	В	U	В	Α	L	L	0	K	٧
D	R	5	K	W	Q	E	У	E	В	Q
У	I	0	G	D	T	В	U	5	Α	0
U	W	Α	L	L	Р	Α	Р	E	R	Р
Р	Q	Z	Α	F	В	R	5	Α	V	Е
C	L	Ι	С	K	N	M	W	R	J	N

2. List the places where you have seen computers being used. For what purpose were the computers being used?

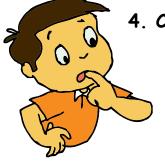


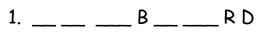
3. Meetu monkey loves bananas. But the banana tree is on the island across the river. Help her reach the tree by marking the seven stones that have the names of items related to a computer.





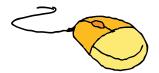
4. Can you help Tejas name the computer parts?







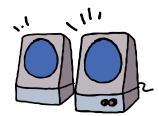
2. \_\_\_\_E



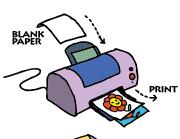
3. M \_\_\_ I \_\_\_ R



4. S \_\_\_ \_ A \_\_\_ \_ R \_\_\_



5. P \_\_\_ I \_\_\_ T \_\_\_



6. \_\_\_ P \_\_\_\_

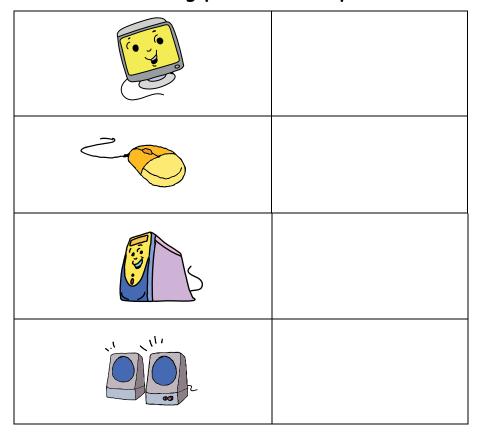




#### 5. Match the computer parts:

	SPEAKERS
	PRINTER
BLANK	WEBCAM
	CD

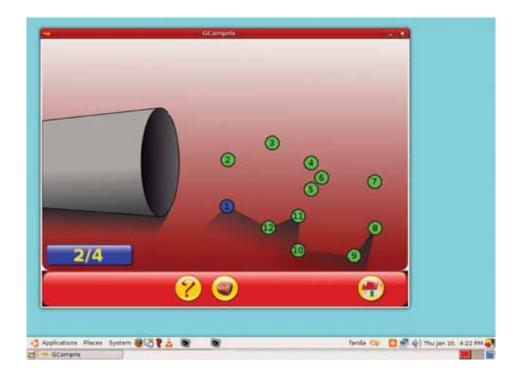
#### 6. Name the following parts of a computer:



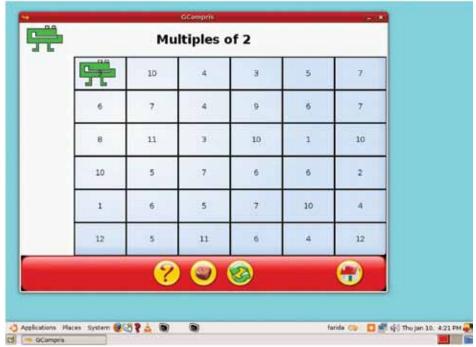


- 1. Use the keyboard to play the following game:

  Open Gcompris and go to calculation activities under maths games.
- a) Use the mouse to click on the numbers to join the dots and complete the picture.



b) Use the arrow keys to move to different numbers. Press the space bar to eat the number.

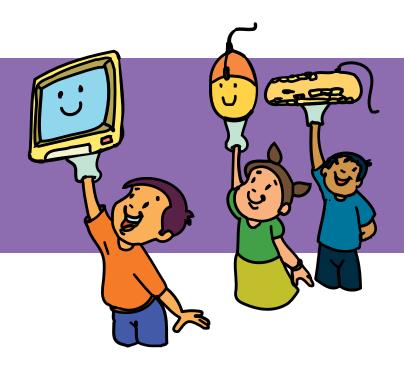




2. Open TuxPaint. Draw a kite and save the file. List the tool options that you used.

#### 3. Group Activity:

Play a game where students act as different parts of a computer. A small group acts as users of the computer, and makes the different parts do various activities. They tell the student who acts as the Keyboard/Mouse to do an activity or solve a problem [e.g. a math problem, a drawing to be made]. Another student acts as the CPU and solves the problem. The CPU gives the answer to the student who is acting as the Monitor, who then shows the answer. Some students could also act as the wires that connect the Keyboard to the CPU and the CPU to the Monitor. You may include a couple of students to act as Speakers, who can sing for the class! You can allow students to take turns being different parts of a computer.





#### Explore!

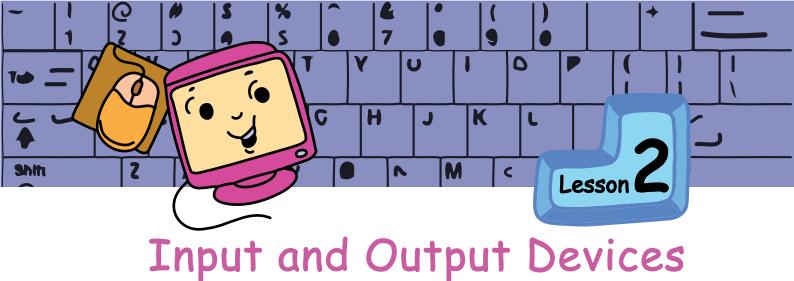
- 1. How can you write your name in CAPITAL letters?
- 2. How can you share the computer to draw a picture?

## Teacher's

- The first lesson of the class II book is a revision chapter. It is important that students
  completely learn the earlier topics before they start new ones. Ensure that you allow
  adequate time for hands-on practice of what they have already learnt.
- Ask the students about places where they have seen computers being used. You can talk about the places that they visited during their holidays.
- You can bring the class I textbook to class. Ask the students about the various activities
  that they did with computers. They might mention playing games, colouring etc. Ask
  them which computer parts are used to do these activities. Summarize the discussion by
  briefly mentioning the function of each part.
- Ask the students what activity they use for drawing using the computer. Let them point
  to the correct icon. Revise the tool bar and allow them to practice the different activities
  listed in the lesson.
- Revise the dos and don'ts that they have learnt. Tell them that they will learn exercises, this year to remain healthy while using computers.

**Further Reading:** 

http://www.kidsdomain.com/brain/computer/lesson/comp\_les1.html http://www.learnenglish.org.uk/words/activities/KZcompdr.html http://www.tuxpaint.org/





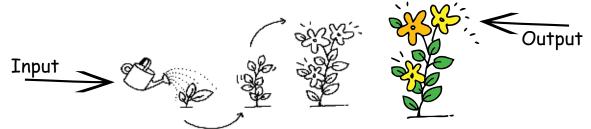
In this lesson you will learn:
About Input and Output concepts.
Some examples of Input and Output devices.

Jyoti [holding a Marigold flower]: Moz, this flower from my garden is for you.

Tejas [holding a printout of a painting]: Moz, this painting from the computer is for you.

Moz: Thanks. A plant takes in water and

gives flowers. Taking in is called **Input**. Giving out is called **Output**. Water is the input and flowers are the output for the plant. Can you give an example of an input and an output for a computer?



Tejas: When I draw using a mouse, the drawing actions are the input. When the computer prints the drawing, the **printout** is the output. Moz: Correct. What did you use to give the command to print? Tejas: The mouse. I clicked on the print icon.

Moz: The command given using the mouse is an input. So the mouse is an input device.



Input devices allow us to send information to the computer. Input to the computer is usually given by clicking the mouse or typing on the keyboard.

Moz: From which device did you get the

output?

Jyoti: Printer! So the printer must be

an output device.





Output devices allow us to receive information from the computer. Output from the computer may be printouts from the printer, sounds on the speaker, or images on the monitor.

Tejas: Whatever we type using the keyboard, appears on the monitor. So the keyboard is an input device and the monitor is an output device.

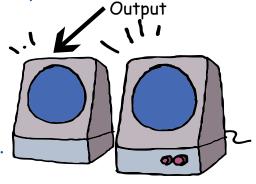
Moz: Right, the commands you type are the input and what you see on the monitor is the output.

Jyoti: When we paint using the computer, the painting can be seen on the monitor. So the paint actions that we do using the mouse are the input. The painting shown on the monitor is the output.

Moz: Yes. The mouse pointer, words, numbers, painting, and everything that is seen on the monitor is the output.

Moz [plays a song on the computer]: Now tell ... me what is the input and output?

Tejas: The song that we hear is the output. Jyoti: We hear the songs from the speakers. So speakers are output devices.





Moz: Correct. What about the input?

Jyoti: You clicked on the song icon using the

mouse. This clicking is the input.

Tejas: So the mouse is the input device.

Jyoti: During the holidays, I saw a movie on the computer. The picture was on the monitor and the sound came through the speakers. That means, both the monitor and the speakers were giving the output at the same time!

Moz: You are right.

Moz disconnects the keyboard and asks Tejas to type his name on the keyboard.

Tejas: I don't see my name on the monitor. The CPU is not able to receive the input as the keyboard is disconnected. So there is no output on the monitor.

Moz: Correct. Suppose an input or output device is not working, what should we do?

Tejas: Check if all the devices are connected properly to the CPU or not.



#### Moz: Good. So now you know that:

- Keyboard and mouse are input devices.
- Monitor, speakers and printer are output devices.
- Any device has to be connected to the CPU in order to receive or send information
- CPU controls all the connected input and output devices.



The CPU is neither an input nor an output device. It takes the information given by the input devices, does the work and sends the result to the output devices. This is called Processing.



Moz: What are the dos and don'ts when we use these devices?

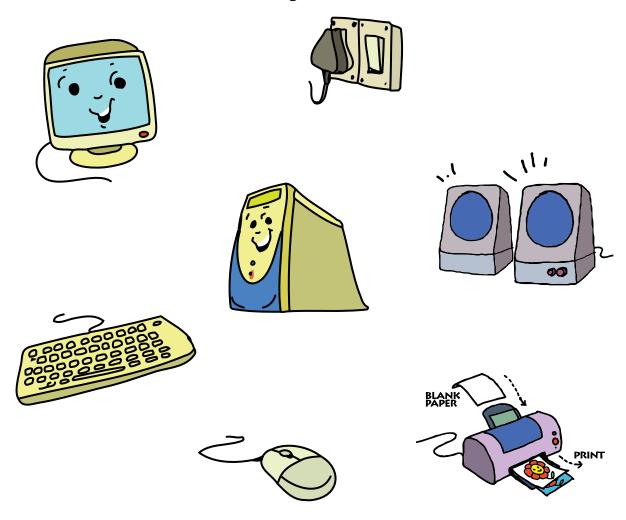
Jyoti: Sit straight. Keep the correct distance from the monitor.

Moz: Yes, and there are some more exercises that we should





1. Aaron wants to connect all the parts of the computer but does not know how. Please guide him.



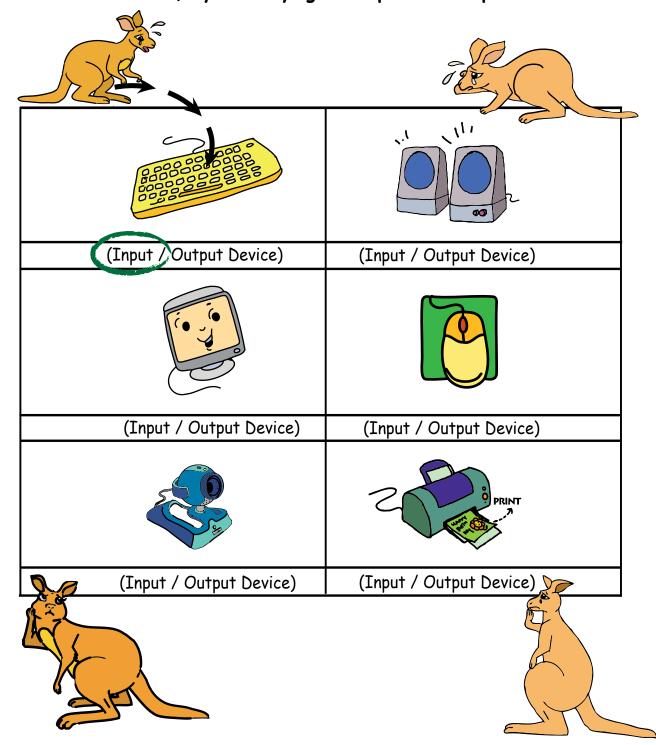
#### 2. Underline the correct answer:

- a. Your eyes are input devices of your body.

  True / False
- b. The computer uses an output device to show us something. True / False
- c. We use input devices to tell the computer what to do. True / False

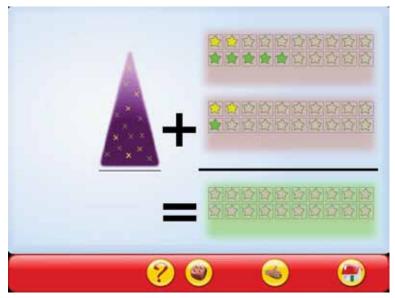


3. Sonu and Monu, the two baby kangaroos are lost. Sonu can reach his mother following the path by hopping on the input devices of a computer. Monu can reach his mother by hopping on the output devices. Please help them to reach their mothers, by identifying the input and output devices.





1. Play the magician's hat game and identify the inputs and outputs in it. Find this game in GCompris -->Math activities



2. Observe a weighing machine at a railway station. Note that when you put a coin in, you get a ticket with your weight printed on it. What is the input and output for this activity?





#### 3. Group Activity:

Act as Input or Output Devices: Have a fancy dress show where different students act as the different inputs required for growing a plant. Students showing inputs can be sun, water, soil etc. Some students can act as leaves, flowers and fruits to show the output.



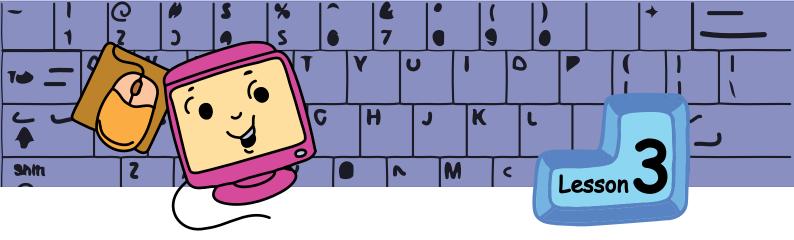
#### Explore!

- 1. Observe a house or building being constructed and identify the inputs and outputs.
- 2. Which body parts can perform both input and output functions?

## Teacher's Corner

- Start the class by telling the students a story of how a fruit tree grows from a seed. Ask them what were the various steps involved. Water and sunshine are the inputs and the fruit is the output. Give other examples to clarify the concepts of input and output. For instance, to make fruit juice you need fruits as input and the juice is the output.
- Revise the various parts of the computer. Ask them to identify what are the input and output devices. Do not give the answers directly. Ask them more questions so that they can discover the right answers for themselves.
- Ask the class what would happen if the computer system did not have a monitor.
   Repeat the disscusion for a keyboard, a mouse and a speaker.
- Play a video. Turn off the monitor. Can you still hear the sound? What output is missing? Turn the monitor on again and detach the speakers. Can you see the video playing? Can you hear the sound? If there are built-in speakers, the students may hear the sound even if the speakers are unplugged. Show them where the built-in speakers are located.
- List the basic input and output devices that we need to interact with the computer.

Further Reading:
(To teach about different parts of a computer)
http://www.abcya.com/input\_output.htm
http://parenting.kaboose.com/education-and-learning/learning-resources
/comp\_les1.html
http://www.eduplace.com/rdg/gen\_act/g\_start/computer.html



### Computers and your Health

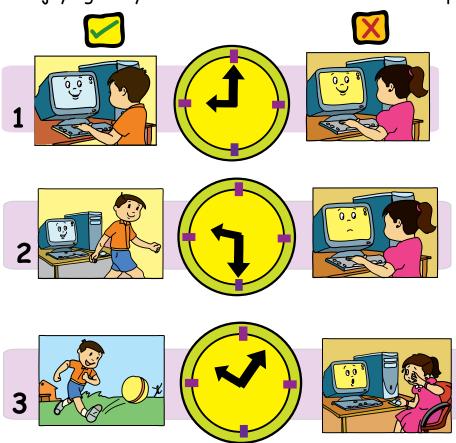


In this lesson you will learn:

Precautions to be taken while using a computer.

Correct posture while using computers. Exercises for physical fitness.

We know that computers can be both fun and helpful. But it is not safe to use a computer continuously for long periods. It might strain the eyes, cause back pain, etc. Good posture, care, and exercise are the key to enjoying many activities. It is the same with computers.

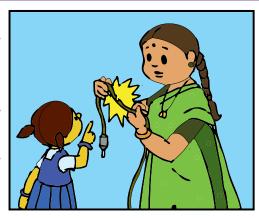


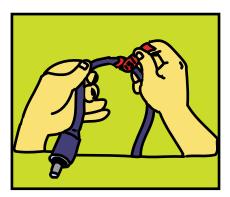
Children should not use the computers for more than one hour per day. This can be in two sessions and preferably for educational purposes.

Jyoti: Moz, the power cable of the computer is cut and I see some wires inside.

Moz puts insulation tape around the tear.

Moz: A damaged power cable can give an electric shock and cause injury. You should be careful with the power cables and the power sockets.





## Precautions to take with power cables and sockets:

- a) Do not touch any power cables.
- b) The power cables should be well insulated. If you see any damage, report it to the teacher.
- c) Do not put your fingers or other objects into the power socket.

#### Computer safety:

- d) Do not insert objects into any sockets or outlets on the CPU, keyboard, printer, and speakers.
- e) Do not use any liquids to clean the computer. Use a clean, dry soft cloth only.



#### Posture and Exercises:

Moz: What happens if we do not maintain a good posture? Jyoti: We can get body aches if we do not sit up < straight.

Tejas: If we use the computer without a break, or if we sit very near to the monitor, our eyes may hurt.

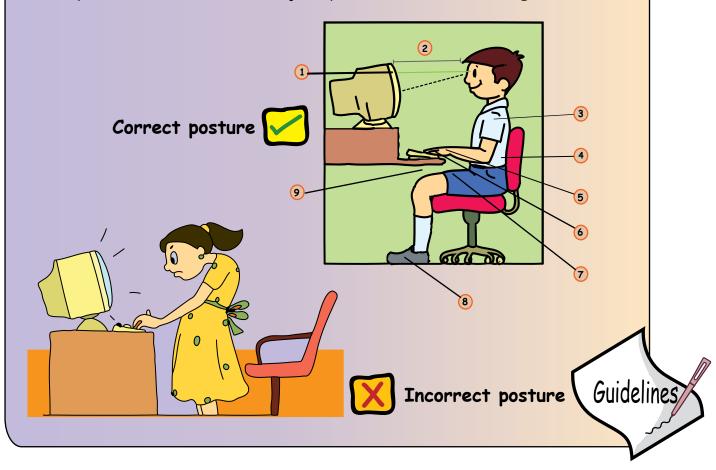
Moz: Correct.

Use the computer only for a short period of time in a day. To avoid pains and aches in the eyes, neck, wrists, back and hands, maintain good posture while using the computer. To keep yourself fit, do some exercises.

#### Posture to be maintained while using the computer:

- 1. Your entire body should face the monitor and keyboard.
- 2. The screen should be 18 to 24 inches from your eyes. Its position and angle should not cause any reflected glare.
- 3. Keep your shoulders and neck relaxed.
- Keep your back straight, and make sure you have good lower back support.
- 5. Keep your wrists straight while you are typing. Do not bend your wrists up, down or to the sides.
- 6. Keep your fingers relaxed while typing or using a mouse.
- 7. Keep your thighs parallel to the floor.
- 8. Keep your feet flat on the floor. If your feet cannot reach the floor use a foot stool or some footrest.
- 9. There should be enough room between the desk and the legs.

Use your whole arm, and not just your wrist when moving the mouse.



Exercises to do before using the computer:

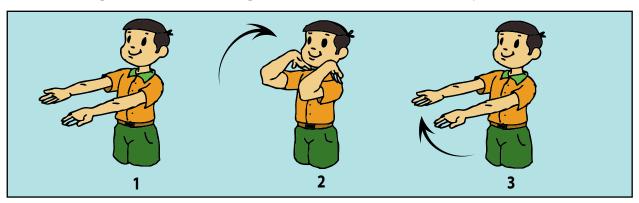
Yogasanas for shoulders, hands, neck and eyes.

Sit in a ventilated room with fresh air. Sit in a cross legged pose with a straight back to do the exercises. If there isn't enough space to sit, you can do them standing.



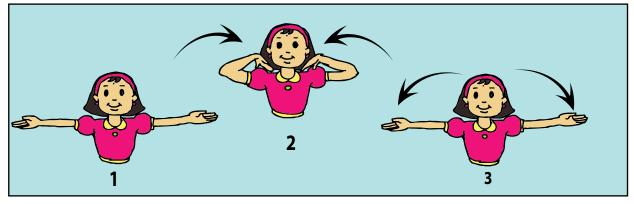
<u>Yoga exercise for the shoulders:</u> Kehuni Naman (elbow bending) Fxercise 1:

- 1. Stretch the arms in front of the body at shoulder level. The hands should be open with the palms facing up.
- 2. Bend the arms at the elbows and touch the fingers to the shoulders.
- 3. Straighten the arms again. This is one round. Repeat 10 times.



#### Fxercise 2:

- 1. Extend the arms sideways at shoulder level, hands open and palms facing the ceiling.
- 2. Bend the arms at the elbows and touch the fingers to the shoulders.
- 3. Again straighten the arms sideways. Repeat 10 times.

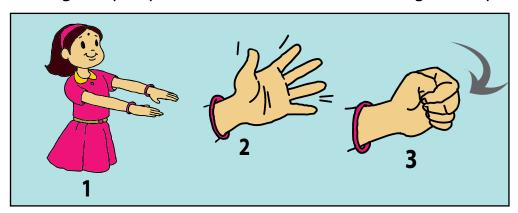


Note: Inhale while straightening the arms and exhale while bending the arm. The upper arms should remain parallel to the floor and the elbows held at the shoulder level, throughout the exercise.

#### Yoga exercise for hands: Mushtika Bandhana (hand clenching)

#### Fxercise 1:

- 1. Hold both arms straight in front of the body at shoulder level.
- 2. Open your hands, palms down, and stretch your fingers as far apart from each other as possible.
- 3. Close your fingers to make a tight fist with the thumbs inside. The fingers should be slowly wrapped around the thumbs.
- 4. Again open your hands and stretch the fingers. Repeat 10 times.



#### Yoga exercises for neck: Greeva sanchalana (Neck movements)

#### Fxercise 1:

- 1. Face directly forward and close your eyes.
- 2. Slowly move your head to the right. Try to touch your right ear to your right shoulder, without turning the head or raising the shoulders.
- 3. Move your head to the left side and try to touch your left ear to the left shoulder.
- 4. This is one round. Do not strain your neck; touching your shoulder is not necessary if you cannot reach it. Practice 10 rounds.



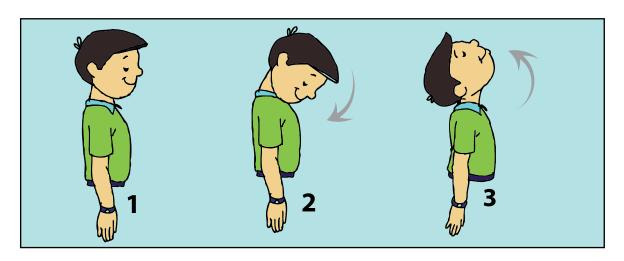






#### Exercise 2:

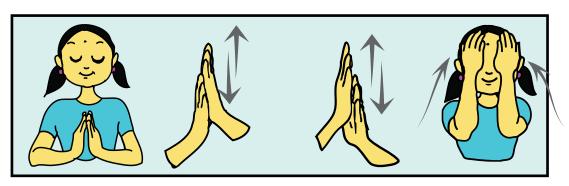
- 1. Face directly forward and close your eyes.
- 2. Slowly move the head forward. Try to touch your chin to the chest.
- 3. Move your head as far back as is comfortable. Do not strain your neck.
- 4. This is one round. Practice 10 rounds.

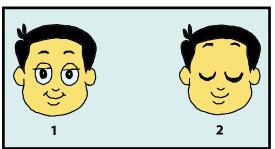


#### Yoga exercises for the eyes:

#### Exercise 1: Palming

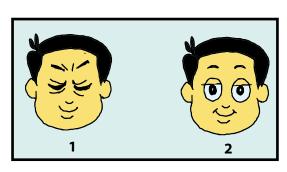
- 1. Sit quietly and close your eyes. Rub your hands together until they become warm.
- 2. Place the palms gently over your eyelids, without any undue pressure. Place your palms so that the nose remains uncovered. Remain in this position till the heat in the hands is absorbed by the eyes.
- 3. Then lower the hands, keeping your eyes closed. Again rub the palms together until they become warm and place them over the closed eyes.
- 4. Repeat at least 3 times.





#### Exercise 2 - Blinking:

- 1. Sit with your eyes open.
- 2. Blink your eyes 10 times quickly. Close your eyes and relax for 20 seconds.
- 3. Repeat 5 times.

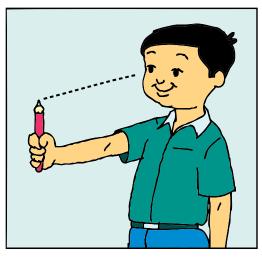


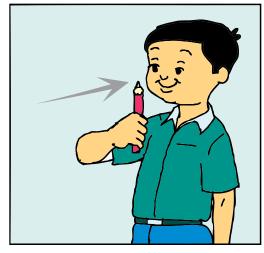
#### Exercise 3 - Be a Cat:

- 1. Close your eyes tightly for 3-5 seconds.
- 2. Now open them for 3-5 seconds.
- 3. Repeat this 7 or 8 times.

#### Exercise 4 - Pencil exercise:

- 1. Hold a pencil at arm's length. Keep your eyes fixed on the pencil tip.
- 2. Move the pencil slowly towards the nose. Remember your eyes should not look away from the pencil tip.
- 3. Repeat the exercise 7 to 10 times.





#### Exercise 5:

1. Take a small ball.

2. Bounce the ball with one hand and catch it with the other hand. The path of the ball from one hand to the other should be V shaped.

3. Follow the complete path of the ball with your eyes.

4. Repeat this exercise by alternating the bouncing and catching hands.



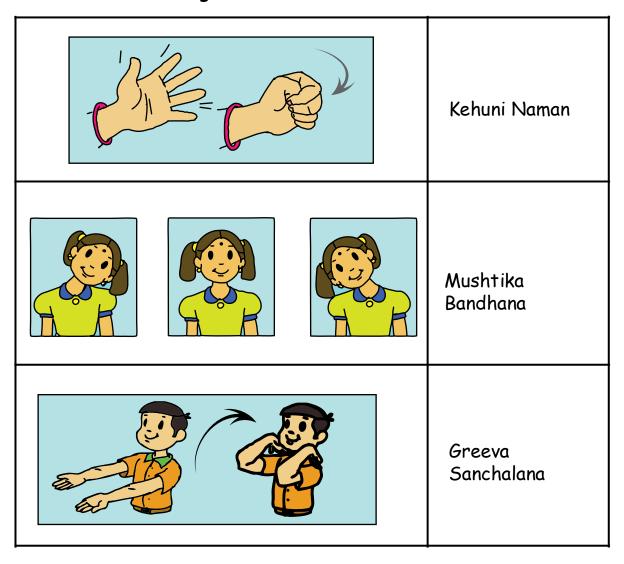
Tejas and Jyoti: We enjoyed doing the exercises. We have learned some of these exercises in the yoga class.

Moz: Good. Do the exercises regularly to keep your body fit and healthy. Meet you tomorrow. Chin Chinaki...

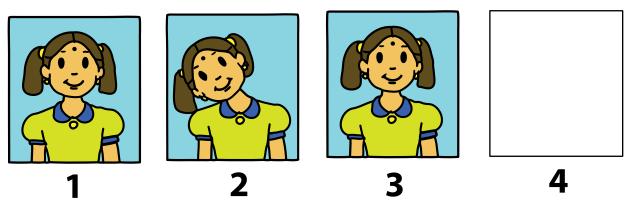




1. Match the following exercises with their names.



2. Savni is doing Greeva Sanchalana. Draw the next step in the exercise





- 3. See the pictures below. Put a 'tick' for the correct postures.
- 1. Riya is watching cartoons. Is her posture correct?



2. Deepak is working on a computer. Is his posture correct?





3. Kajal is writing a letter to her friend. Is her posture correct?



4. Rahul is drawing a picture. Is his posture correct?





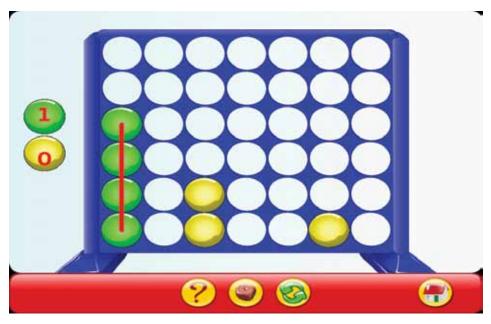
4. Swati wants to buy some input and output devices for her computer. Can you help her by circling the two input and two output devices?





1. Play the following game. Using arrow keys, arrange four coins in a row. You will find this game here:

Applications --> Games --> Educational suite Gcompris --> Strategy games--> Connect



2. Play the following game. The clown on the see-saw should move up and hit the baloons before falling to the ground. Move the see-saw using arrow keys. You will find this game here:

Applications --> Games --> Circus Linux





#### 3. Group Activity:

- a. **Test each other:** Divide the class into groups of five. Each group practises the exercises taught in the lesson for 15 to 20 minutes. Each group can ask the other groups to demonstrate any one exercise or asana. A group scores one point for doing the exercise correctly. The group that scores the highest wins.
- b. Play passing the parcel: All the students in the class can play the game.

  The student who is holding the parcel when the music stops should demonstrate an exercise taught in the lesson. You can use the duster as the parcel and create music with the desk as the tabla! You can also use the computer to play music.



# Project

Do project 2 given in lesson 9.



## Explore!

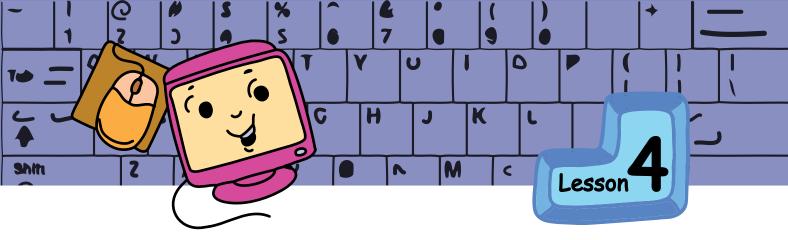
- 1. Find out about the different health problems caused by incorrect posture and prolonged use of a computer.
- 2. What are some other exercises that we can do for the wrist?

# Corner's

- Begin the lesson by revising the dos and don'ts from class I. Ask why it is important
  to follow certain rules while using the computer.
- Introduce the new lesson, by saying that while using computers students should also learn how to remain healthy and safe. Tell the students that anything in excess is not okay. Even if they like to use the computer, they should not use it for too long. Discuss the different purposes for which students can use computers.
- Emphasize the importance of safety while using electronic devices. Show them how
  to handle power cables and how to be careful while using computers. Point out the
  illustrations in the lesson identifying the correct and incorrect ways of handling
  computers.
- Act out a skit where the actors bring out the right and wrong ways of using a computer.
- Mention the importance of exercises to remain healthy. Students may have already learnt some exercises. Ask them to show you some of these exercises. Now highlight the importance of the exercises for correct posture, eyes and hands. Explain why it is important to do these exercises if you are a computer user. Demonstrate the exercises in class with the help of the pictures in the lesson. You can even take the students out of the classroom to the school ground and practise these exercises.
- Summarise the lesson and emphasize that it is important to continue practicing these exercises daily.

#### **Further Reading:**

http://www.wikihow.com/Exercise-While-Sitting-at-Your-Computer https://msds.open.ac.uk/your-record/health.htm http://www.childsoftpress.com/Whatsnewergo.htm



# Activities using a Mouse

Files

Folder



In this lesson you will learn:
Concepts of organisation.
Actions associated with the right click of the mouse.
Drag and drop of files.

Jyoti is looking at the photographs of the recent picnic and Tejas is exploring the desktop of the computer.



Tejas [pointing to an icon]: When we <u>double click</u> on this icon it only opens a window without any activity. What is this icon for?

Moz: The icon you are pointing to represents a Folder. A folder helps you to organize files on a computer. School bag is like a folder that contains the files which are your school books.



Jyoti: I have another example. For our picnic we placed all our food items in one box and games in another box. The boxes are like folders and the contents are like files.

Tejas: We enjoyed the picnic as everything was organized.

Jyoti: We also labeled all the boxes, so we were able to find these items easily.

Moz: Good. Similarly on a computer, files are used to store songs, pictures, etc. Files can be organized and saved in different folders.



Files are used to store songs, pictures, etc.

#### Folders help us by:

- Allowing us to keep related files together.
- Making it easy to locate important files quickly.

Jyoti: Can I create a new folder and keep my files in it?

Moz: Yes, you can. First create a new folder and name it. The name should indicate what type of files we want to keep in the folder. Tejas: I know we can use the mouse to create a folder, but how?

#### Creating a folder

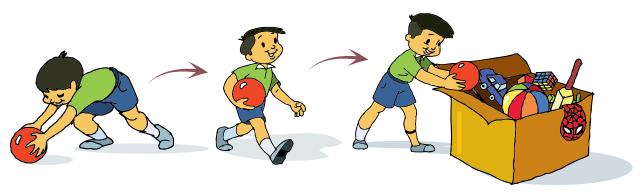
- 1. Move the mouse pointer to an empty space on the desktop.
- 2. Right click (click once on the right button of the mouse).
- 3. Select the option 'Create Folder'.
- 4. Enter a name for the folder.

WILLS

Tejas and Jyoti take turns to create their own folders on the desktop. Tejas names his folder t-songs and Jyoti names her folder j-songs.

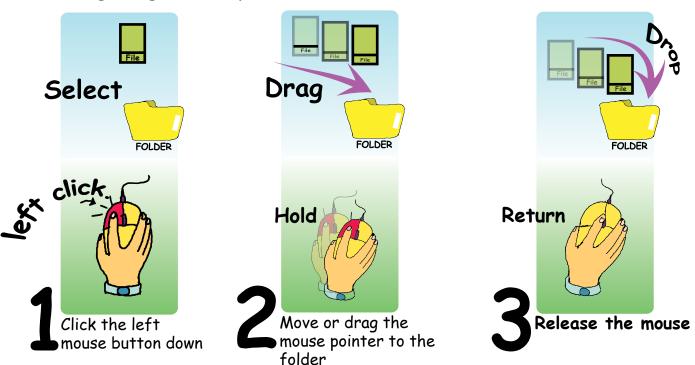
Jyoti: How can I use the mouse to move my files into j-songs folder? Moz: First tell me, how did you fill the boxes with the related items while packing for the picnic?

Tejas: We picked up an item. If it was a game we put it in the games box. If it was food we put it in the food box.



Moz: Similarly, to move files into a folder you can use the mouse. First select a file, then move the file using the mouse to the folder in which you want to put it and drop it in the folder.

## Moving files into a folder Using Drag and Drop



#### Drag and Drop

- 1. Select the file (using <u>left click</u> of the mouse).
- 2. Hold the left button pressed and move the mouse towards the folder. The file icon selected also moves as you move the mouse pointer. This is called 'Drag'.
- 3. Release the mouse button when the mouse pointer is on the folder. This action of the mouse is called 'Drop'.

KILL

Jyoti selects and drags her music file. She releases the mouse when the mouse pointer is on the folder named j-songs. She then <u>double</u> <u>clicks</u> on the j-songs folder to open it.

Jyoti: The file is inside the folder! I can see the file when I open the folder with a <u>double click</u>.

Tejas: This is good. Can I move my folder to a different position on the desktop.

Moz: Yes. You can rearrange the objects on the desktop. Use the same method of drag and drop with the mouse. Simply drag the icon to wherever you want to put it and drop it when you reach that place on the desktop.

#### Reorganizing icons on a desktop

- 1. Select the icon (using <u>left click</u> of the mouse).
- 2. Drag the icon on the desktop using the mouse.
- 3. Release the mouse in an empty space, to Drop the icon at that place.

Til

Tejas and Jyoti organise the files and rearrange the desktop as shown below.



Tejas: Moz, I want to create a file with a story that I wrote and save it in another folder t-stories.

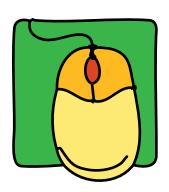
Jyoti: I want to enter my poems.

Moz: Ok. Tomorrow you can use the text editor to create the text files. Chin Chinaki...





1. Circle the correct answer.



a. The mouse is an ...... device.

( Output Input Processor )

b. When you want to move an icon from one location to another using a mouse, you use the ..... method.

( Scroll Drag and Drop Move )

2. Jyoti wants to arrange the files on her desktop. Help her by joining the right file to the right folder.



photos2.jpg





photos1.jpg



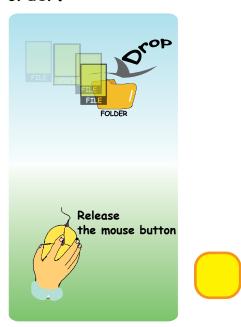


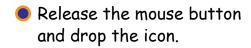


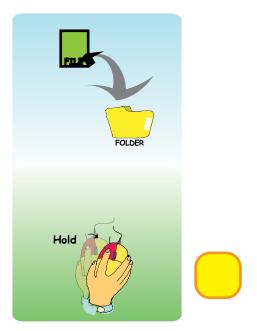




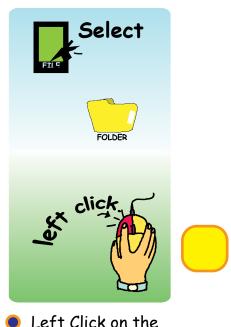
3. Rahul wants to move a file from one location to another. Can you help him by numbering the following steps in the correct order.







Hold the mouse button down and drag the icon to the new location.



 Left Click on the icon to be moved.



4. Kichu rabbit and Michu rabbit are on a picnic. It is late and now they are going back home. All the play things and food are scattered. Help them organise and pack everything neatly in their baskets by showing which item goes into which basket.

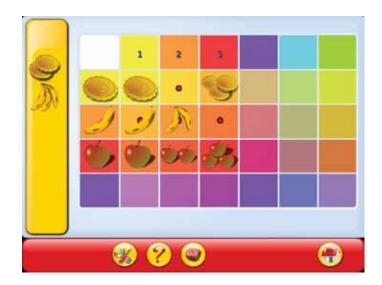




1. Hold the mouse and change the hour and minute hand to show the time given below. To play this game, go through the following steps: Applications --> Games --> Educational suite Gcompris --> Discovery Items --> Miscellaneous acitivites

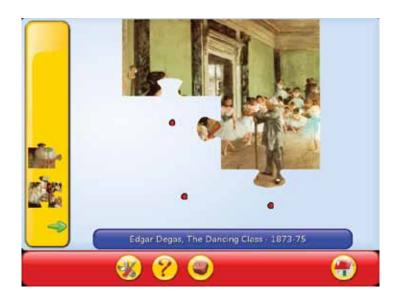


2. Drag the items from the left hand side column and drop them in the appropriate place in the table. To play this game, go through the following steps: Applications --> Games --> Educational suite Gcompris --> Discovery activities--> Miscellaneous acitivites

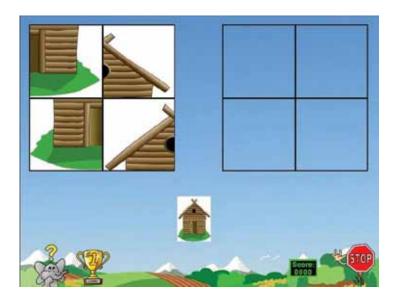




3. Drag and drop the items to complete the painting. Find this game here:
Applications --> Games --> Educational suite Gcompris --> Puzzles-->
Assemble the Puzzles



4. Drag and drop the parts of the picture to complete the jigsaw. Find this game here: Applications --> Education --> Childs Play





#### 5. Group Activity:

Write names of flowers, fruits, vehicles and animals on small slips of paper. Stick placards of each category in different areas of the classroom. Each student picks up one slip of paper and runs to the group that he or she belongs. After the class is divided into the groups, some students can act to show what their group does. For example, students in the vehicle group can act like a train.



**Project**Do project 3 given in lesson 9.



#### Explore!

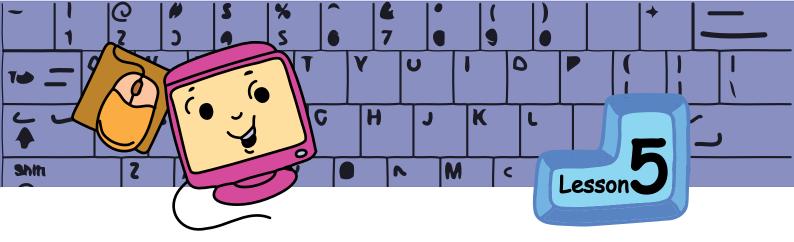
- 1. Observe the different types of mouse pointers. Find out the shape of the mouse pointer:
  - i. Most commonly seen while navigating the desktop.
  - ii. When the computer is starting an activity.
- 2. What other options are there when you:
  - i. Right click the mouse on the desktop.
  - ii. Right click on a file.

# Teacher's

- Before the class, clutter the desktop of the computers by placing several text, music and picture files along with the activity icons. Begin the lesson by revising the mouse operations that the students already know. Revise the left click, right click and double click and their uses.
- Start the computer and ask the students to look at the desktop. Ask them to identify a particular music file and how they searched for it. They will say that they read all the file names and identified the file by its name. Now draw their attention to the value of organising things. Ask them why they have separate notebooks for each subject rather than writing everything in a single notebook. Ask them what will happen if they write the answers for different subjects on separate sheets of paper and then bundle them all together. Ask them, how they will search for a specific answer for a specific subject. They might say, 'we will check every page of the notebook and search for it.' Show that it is necessary to organise things in order to find them easily. They have separate notebooks for each subject for the same reason. Folders are used on a computer to keep related files together so that they may be found easily.
- Now show the students how to create a folder. Tell them that the name of the folder should be such that it gives an idea of what files it might contain. For example, all music files can be put in one folder named 'music'. Similarly, create other folders to store the files on the desktop. Show them how to select a file, drag it to a folder and drop it inside that folder (Drag and Drop is a complex activity for some students who may not have the motor dexterity. With time and practise, they should be able to do it).
- Show the students that the activity icons can also be dragged and moved to different locations.
- After all the files are moved into the folders and activity icons are appropriately placed, ask the students which desktop looks neater. Underline the importance of organisation.
- Depending upon the ability of the students, you can show them how to use Auto Arrange. Ask them to right click on a blank location on the desktop and read the different options in the dialog box. You can demonstrate it to them.
- Summarise the lesson and emphasize that it is important that they do not hold onto the mouse continuously and with a tight grip. Allow the students to practice these operations.

#### **Further Reading:**

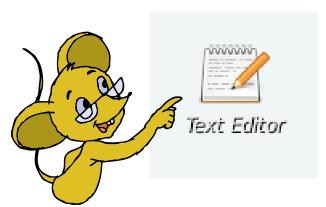
(Games and activities to enhance mouse control)
http://bright-productions.com/kinderweb/index\_silent.html
http://internet4classrooms.com/month2month.htm



# Activities using a Keyboard



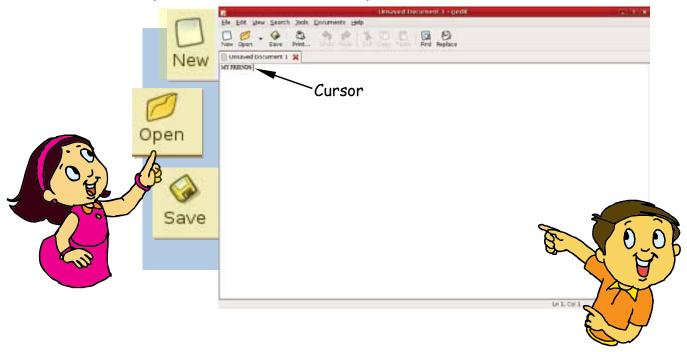
In this lesson you will learn to use: Caps Lock, Backspace and Delete keys. The four directional arrow keys, Page Up, Page Down keys.



Tejas: Moz, We want to prepare a list of our friends. Which activity can we use?

Moz: Use the **Text Editor** activity. This enables you to write and make changes to the text.

Tejas and Jyoti double click on the **Text Editor** icon with the mouse. Tejas: Like the paint activity, the text editor has options to create a new file, open files that are already created and save a file.



Moz: Yes. As you already know, most of the activities have these common options.

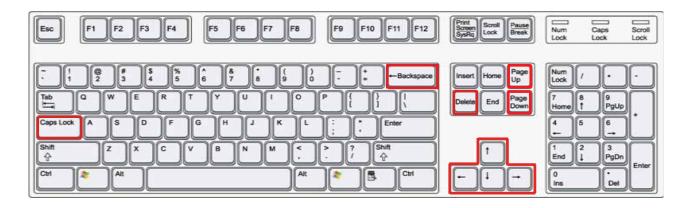
Tejas: Do we write text in the blank space?

Moz: Yes. Just like you write on a new page in your notebooks.

Jyoti: The shape of the mouse pointer is different in the text editor. Moz: Good observation. The mouse pointer in a text editor is also called a **cursor**. It is usually a small blinking vertical line.

Jyoti: Moz, We can write text using the alphabet keys and number keys on the keyboard. I want to type my friend's name. How can I write capital letters?

Moz: First press on the Caps Lock key. Then type the alphabets.



Jyoti: A small light on the keyboard comes on when we press the Caps Lock key!

Tejas: By pressing the Caps Lock key again we can write lower case alphabets. The light on the keyboard is now off!

Moz: Good. The light indicates whether the Caps Lock key is on or off.

#### Caps Lock

• Pressing on the Caps Lock key allows you to type capital letters.

Caps Lock

- Press the Caps Lock key once again to type lower case letters.
- A small green light on the keyboard indicates the status (light on - Capital letters, light off - lower case letters).

Tejas and Jyoti write the names of their friends one below the other.

Moz: Good, you have used the Enter key to go to the next line.

Jyoti typed Sweetha instead of Swetha and wants to delete the extra 'e' in the name.

Jyoti: Moz, I want to move the cursor back. How do I do this?

Moz: You can use the arrow keys on the keyboard to move the cursor within the text.





#### Arrow keys

There are four arrow keys on a keyboard. These keys allow you to move the cursor up, down, left and right.

- Up and down arrow keys move the cursor up or down, one line at a time.
- Left and Right arrow keys move the cursor left or right, one letter at a time.

TILE

Jyoti: I used the **left arrow key** to take the cursor to the letter 'e' that I want to erase. How do I erase the letter?

Moz: Use the Backspace key.

Jyoti: **Backspace key** is erasing the letter before the cursor. How do I erase a letter which is after the cursor?

Moz: Oh! Use the **Delete key**. Making changes to the text that you have written is called **editing** the text.

#### Backspace Key

This key erases the letter or number before the cursor. It is marked Backspace. It is usually the last key on the row of numbers.

### Delete Key

This key erases the letter or number after the cursor.



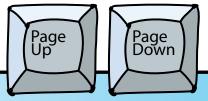
Backspace



Making changes to the text that you have written is called editing the text.

Tejas finishes entering all the names and wants to give a title to the list. So he uses the **Up arrow key** to move the cursor to the top of the page.

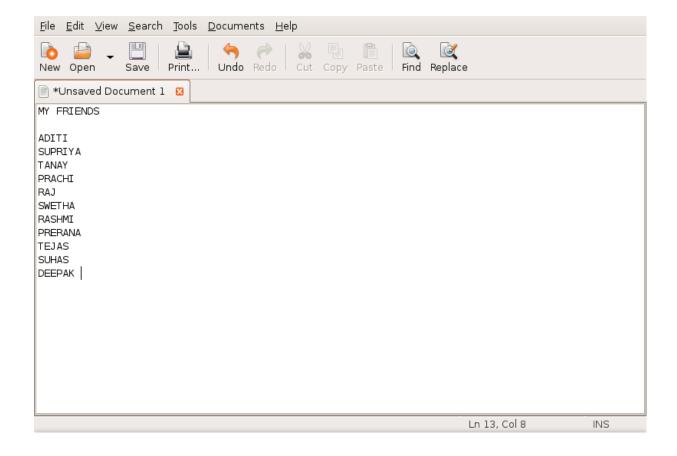
Moz: Instead of using the Up arrow key several times, Use Page Up. This will move the cursor up one page at a time. Use Page Down to move the cursor down, page by page.



### Page Up/ Page Down

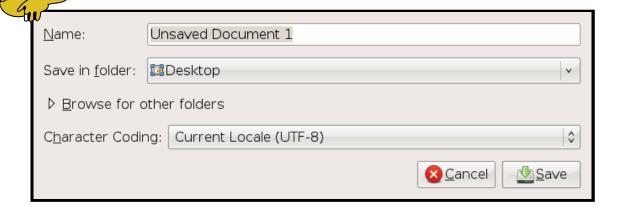
These two keys are used to move the cursor up or down, one page at a time.

The arrow keys and the Page Up and Page Down keys are called the navigation keys. They help us move around in a file.



Moz (Looking at the list): Have you saved the list in a file?

Tejas: I clicked on the **Save** button. The dialog box is asking me to enter a name for the file.



Moz: Give a suitable name so that you can easily find your file later. Tejas names the file t-friends and Jyoti names her file j-friends. Jyoti: Can we draw some pictures using the paint activity?

Moz: Ok. I am going out of town for a few weeks. I have prepared a list of activities for you. Start the activities tomorrow.

Chin Chinaki...



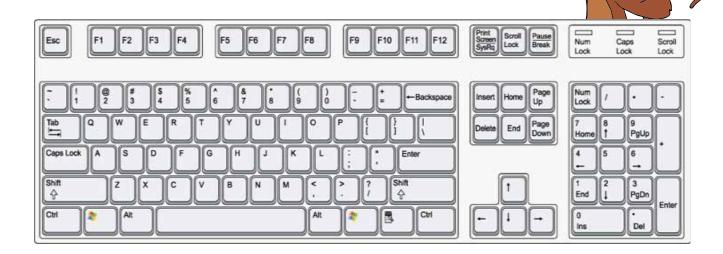




#### 1. Meetu monkey wants to colour the keyboard. Can you help her?

Red for number keys
Green for Spacebar key
Pink for arrow keys
Orange for Page up and Page down keys

Blue for the alphabet keys Brown for Caps lock key Yellow for Backspace key Grey for Delete key



## 2. Match the following keys with their functions:

Page Up	Allows you to type capital letters
Backspace	Erases the letter after the cursor
Caps Lock	Allows you to move up a page
Delete	Erases the letter before the cursor

3. Can you guess which key I am? a) I allow you to move to the next line.
b) I allow you to move the cursor to the top of the page.
c) I allow you to delete the letter to the left of the cursor.
d) I allow you to delete the letter to the right of the curso
e) I allow you to create blank space between two words.
f) If you press me you can type capital letters continuously.
g) I allow you to move the cursor to the end of the page.
h) You use me to type numbers.
i) I allow you to write alphabets.
j) I allow you to move the cursor up, down, left or right.
Eac F1 F2 F3 F4 F5 F6 F7 F6 F9 F10 F11 F12 F10



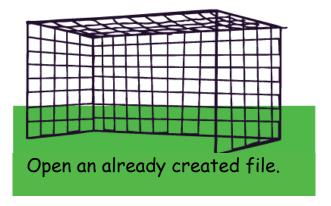
4. Supandi does not know which keys are seen on a keyboard. Help him by colouring the keys which are seen on the keyboard in red and the others in black.





# 5. Match the following:

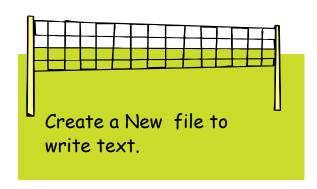






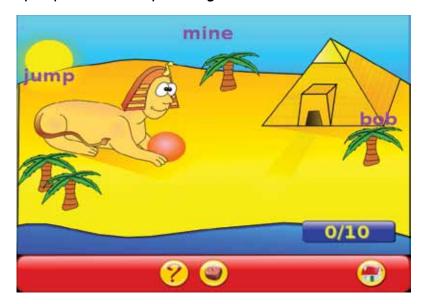








1. Falling words: Type the words before they reach the ground. To play this game, go through the following steps: Applications--> Games--> Educational Suite Gcompris --> Computer peripherals--> Keyboard games.



2. Move the helicopter using the up, down, right or left arrows on the keyboard to catch the clouds. Catch the numbers in increasing order. Find this game here:

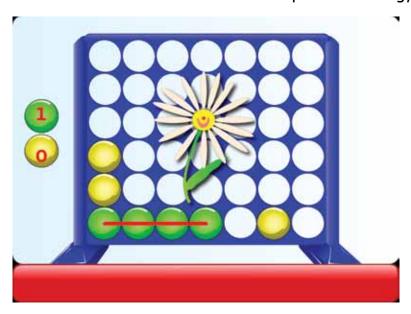
Applications--> Games--> Educational suite GCompris--> Mathematics--> Numeration





3. Connect 4: Use the keyboard keys to arrange 4 balls in a row. To move a piece to the left or right use arrow keys. To drop a piece use the down arrow or spacebar key. To play this game, go through the following steps:

Applications--> Games--> Educational Suite GCompris--> Strategy games



#### 4. Group Activity:

Divide the class into groups of five each. Each group has to type names of different professions using the computer. Each student in the group can take turns to write the professions. At the end of the exercise, find out which group has the longest list.



### Project

Do project 4 given in lesson 9.

### Explore!

- 1. Some keys on the keyboard are seen at more than one location. For example: Several keyboards have two Enter keys. Look at the keyboards around you and find more such keys.
- 2. Besides using the CapsLock Key for typing capital letters, is there any other way to do it?

# Teacher's

- Begin the lesson by revising what the students already know about the keyboard.
   Mention the different keys they learned in class I alphabet and number keys, enter key, space bar and backspace key. Engage them in a discussion on what these keys are used for.
- Tell the students that in this lesson, they will learn the use of additional keys that will allow them to do new things using the keyboard. Open the text editor on the computer (at this point, it is not important for students to know how to start this application) and type their names one below the other. Press the Caps Lock key and type a few names. Ask them to note if they are in capital or small letters. After this, toggle Caps Lock key and type a couple of names. Now ask them to note the difference. Students will be surprised and eager to learn how this change occurs. Teach them about Caps Lock key and inform them that a green light is on when this key is pressed. Tell the students that this light might be located at different places on different keyboards. Ask the students to look at different keyboards and note this.
- While writing the students' names, make a deliberate mistake. Ask them to correct it. They have already learned about Backspace key. For the sake of revision, repeat its function. Ask them to note that the Backspace is shown differently in different keyboards (If possible, get pictures of a variety of keyboards; where the name of the key is written, and where only the back arrow is indicated). Introduce the function of Delete key and tell the students that it allows them to delete a character following the cursor. (Students can get confused between the functions of these keys. Do not worry, they will be more confident as they continue to use the keyboard extensively in the future. Emphasize that both Backspace and Delete keys allow you to remove one letter at a time).
- The list of students names in the class is likely to be long. Ask them how they can look at the names in the list. Demonstrate the use of the arrow keys. You can even ask the students to do a physical exercise where you ask them to move their hands in the four directions to reinforce the function of the four arrow keys.
- Tell the students about the function of Page up and Page Down key and demonstrate using the list of students' names. End the class by summarising the different keys they learned in the lesson, followed by activities that allow them to practise use of these keys.

Further Reading:
(To learn the keys on a keyboard)
http://www.learnnc.org/lp/pages/3454
http://www.sesamestreet.org/home/?contentId=9495524&



# Activities using Paint



In this lesson you will learn:
To use various tools of Paint activity.
(See the Level I lesson on paint for a revision.)

1. Draw a greeting card for your friend on her birthday! Use the paint tool to write the birthday wishes on the card.

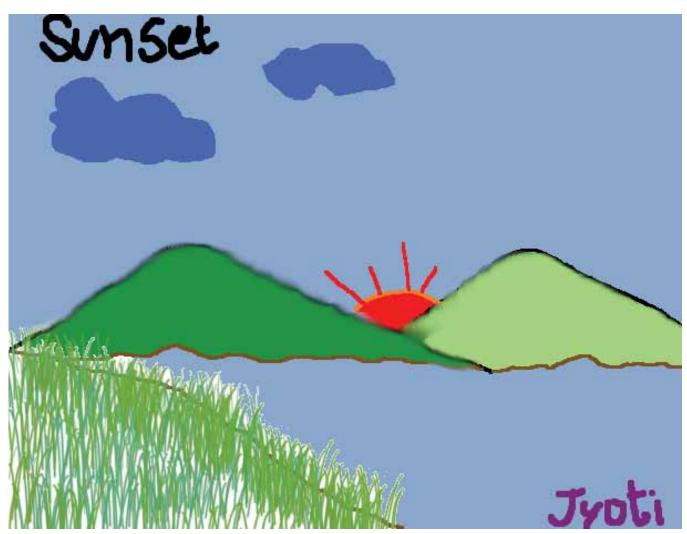


2. Learning about different occupations. Make charts of different occupations by collecting the objects associated with them. You can even draw the objects. For example the occupation of carpentry can be represented by saw, screw drivers, a hammer, wood etc. Use your imagination to give a nice title and write the name using the Text tool. To do this activity, form groups of five students. Each group does one occupation with one student drawing or writing name of one tool used in that occupation. Find out the group that has the maximum number of tools for their chosen occupation.



- 3. Draw a scenery of your choice. To do this activity, form groups of five students each. Each student does one portion of the scenery. For example, while drawing a village scene, one student can draw mountains, while another can draw a sun, a pond, birds, a tree, etc.
- 1. A village
- 2. Zoo
- 3. Garden
- 4. Sunset or Sunrise over the Sea or hills

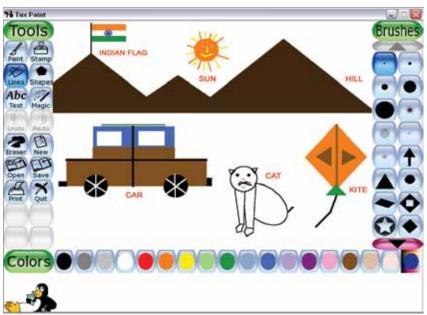
Give an interesting title to the picture and write it using paint tool. At the bottom of the page to the right hand side write your names.

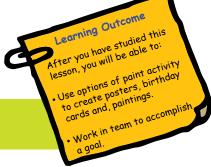


4. Choose a game that you like to play. Find out about the game. For example, the number of players, objects used to play, size of the play ground, etc. Make a poster of the game using Tux paint. To do this activity, form groups of four or five students. Each group can work on one game. Search for the objects in the existing images. You may even draw these objects. Write the name of the game and the names of objects used to play the game (You may use any of the tools - magic, text, paint to write).



5. Draw and paint any object or a place, using line tool and shapes tool. For example flags of countries, a house, a person, a car, a table, a chair, a cricket ground, swimming pool and many more can be drawn with a combination of the line tool and shape tool. You can use the paint tool if necessary. Label the objects that you draw using the line and shape tool wherever possible. To do this activity, form groups of four or five students. Each student in the group makes one object.







## Project

Do project 5 given in lesson 9.

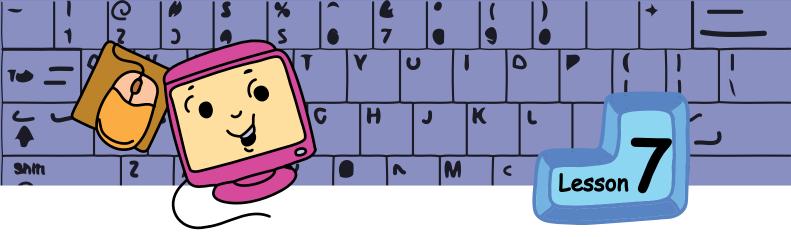
# Explore!

- 1. Find out the different kinds of lines that you can draw using Paint and Line tool. For example: You can draw a dotted line or a line made up of squirrels.
- 2. Draw a picture in Tux Paint and use mirror and flip options under magic tool. What happens to your drawing?
- 3. Explore how to change the size of the letters you enter using the Text tool in Tux Paint.

# Teacher's Corner

- The students already know how to use Tux Paint. However, begin the class by illustrating the steps to open the paint application and use the different options in the tool box. Tell them that they can not only draw but also write on their painting. Demonstrate this using an activity like drawing a flower and writing its name. For students who are not as familiar with the various options, revise the class I textbook lesson on Paint and teach them the application.
- Revise the different tools and options in Tux Paint. You can do the following:
  - a. Ask students to use the line tool and draw figures such as a triangle, square, etc. Now ask them to use the shapes tool to draw the same figures. Following this, ask them to select a particular colour from the palette before selecting the shape and draw the figures.
  - b. Draw a picture of a boat. Erase portions of the drawing using erasers of different sizes and shapes. You can ask them which eraser they prefer and why. Explain the need for erasers of different sizes and shapes.
  - c. Ask students to draw an arrow and a star using the line tool. Now ask them to find out the brush in paint tool that will allow them to draw these pictures. Draw their attention to the identical brushes in the line and paint tool. Discuss whether they will use line or paint tool for drawing wavy patterns.
  - d. Use brush of varying thickness to colour the background. Colour only half the background. Now use the fill option under the magic tool to colour the entire background in a single click.
  - e. Ask students to draw a rainbow using the paint tool. Now use the option of rainbow under magic tool to draw a rainbow.
- Allow the students to practice. Divide the class into groups and ask them to do each of the above activities. Discuss what they can write on their paintings in the class.
- You may add other activities to provide appropriate practise of Tux Paint application.

Further Reading: http://www.tuxpaint.org



# Editing Text

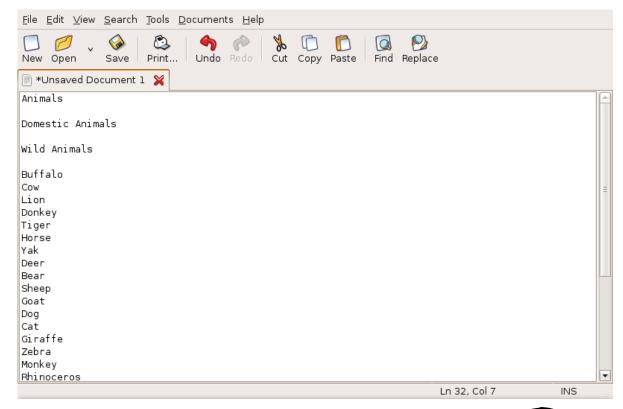


In this lesson you will learn: Concepts of Copy, Cut, Paste, Undo. How to edit the text written using a computer.

Tejas and Jyoti open the text editor activity and start typing text.

Tejas: Moz. We are entering the names of animals using the text.

Tejas: Moz, We are entering the names of animals using the text editor.



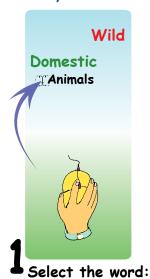
Jyoti: We want to separate them into two lists,

1. Domestic animals

2. Wild animals

First I want to enter the titles for the lists. Since the word Animals is repeated in both the titles, can I copy the word?

Moz: Yes, you can. It is called Copy and Paste. There are some steps you need to follow to Copy and Paste.

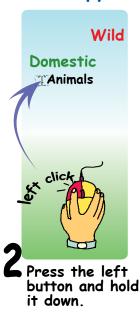


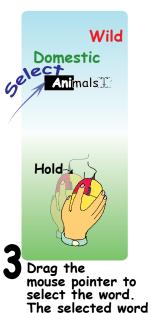
Move the mouse

beginning of the

pointer to the

word.





is highlighted.



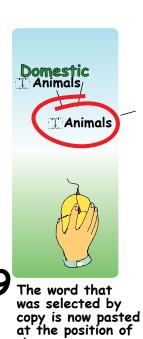
Move the mouse pointer to Copy on the tool bar. Click on the Copy icon.



Move the mouse pointer to the position where you want to paste the word.







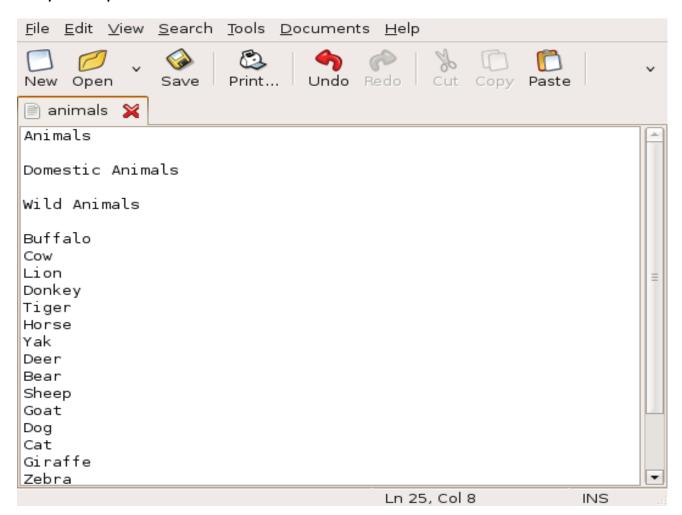
the cursor.

## Copy and Paste

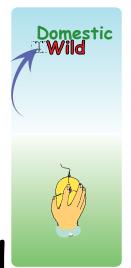
- 1. Move the cursor to the beginning of the word to be copied and select the word.
- 2. Click on Copy.
- 3. Move the cursor to the place where you want the word.
- 4. Click on Paste.

STILL

Jyoti copies the word Animals and uses it in the titles of the two lists.



Tejas: I see an option called **Cut**, next to **Copy**. What is Cut for? Moz: Cut and Paste is similar to Copy and Paste.



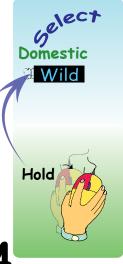
Select the word to be cut. Move the mouse pointer to the beginning of the word.



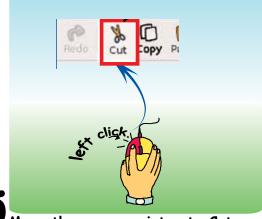
Press the left button and hold it down.



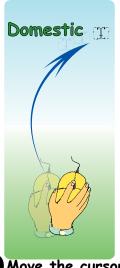
Drag the mouse pointer to select the word. The selected word is highlighted.



Release the left button of the mouse at the end of the word.



Move the mouse pointer to Cut on the toolbar. Click on the Cut icon. Observe that the word disappears.



Move the cursor to the position where you want to paste the word.



Click the left mouse button.



Move the mouse pointer to Paste on the toolbar. Click on Paste icon.



The word that was selected by Cut is now pasted at the position of the cursor.



#### Cut and Paste

- 1. Move the cursor to the beginning of the word to be cut and select the word.
- 2. Click on Cut.
- 3. Move the cursor to the place where you want the word.
- 4. Click on Paste.





Jyoti: In Copy and Paste, the word which is copied remains. In Cut and Paste, the word that is Cut disappears.

Tejas: I cut two words. How can I bring them back into the list?

Moz: Click on the Undo option in the toolbar.

Tejas: Oh! Both the words are back now.

#### Undo

Click on Undo to go back without the changes.



Moz: Now that you know how to cut and paste, arrange the lists in alphabetical order.

Tejas and Jyoti take turns to Cut and Paste.

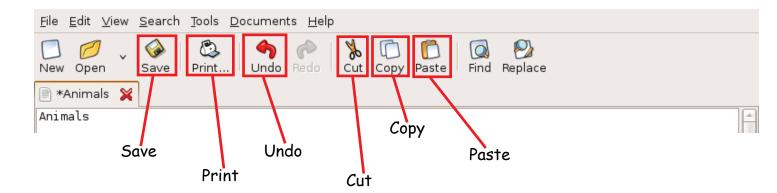
Tejas: We have saved the file by clicking on **Save**. The file name is tj-animals and we printed the file by clicking on **Print**.





#### Save

To ensure that your changes are recorded, it is essential to save the file.



Jyoti: Tejas, the title bar of the window has the name of the file.

Tejas: Yes and just like music or Paint activity, the window can be closed by clicking on  $\square$  in the corner of the title bar.

Moz: Good. Now you can write and also make changes to the written text using a computer.

Jyoti: Moz, How do we switch off the computer?

Moz: I will show you the steps in switching off a computer and much more tomorrow. Time to go home now. Chin chinaki...

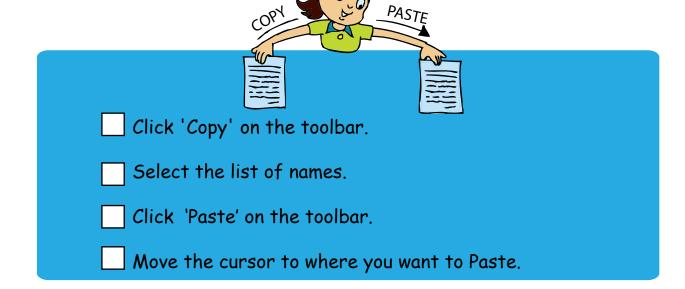




#### 1. Match the animals to their tails:

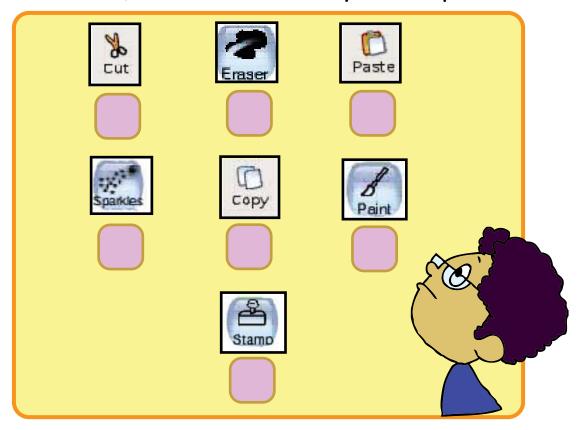
COO	I copied the timetable from the school notice board.	Paste
	I use a pair of scissors to cut a piece of paper	COPY
	I use gum to stick a stamp on an envelope.	cut

2. Neeta wants to note down names of her classmates in a text file. She wants to use the 'Copy and Paste' command to do this. Can you help her by arranging the steps to be followed in the proper order.



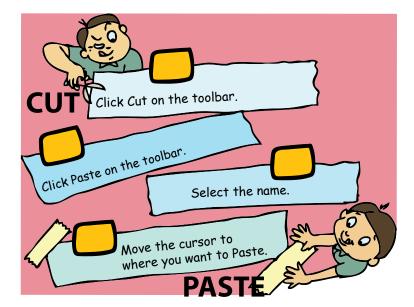


3. Bittu wants to identify the different icons in a TuxPaint and Text editor activity. Help him by writing T below the icons you see in text editor, and P below the icons you see in paint.



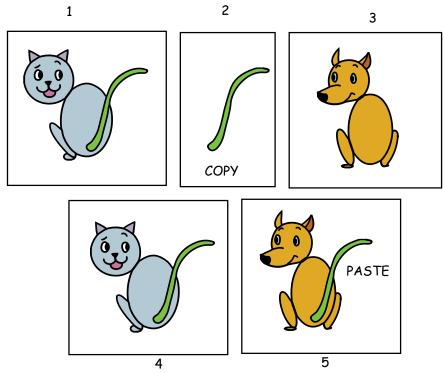
4. Rahul has typed the names of his friends in a text file. He now wants to arrange them in alphabetical order. He wants to use the 'Cut and Paste' command to move the names from one location to another. Number the steps to be followed in the

correct order.





1. Draw a cat on a chart paper. Colour its tail green. Draw a dog on another chart paper. Observe the green tail of the cat. Draw the same (copy) tail for the dog and colour it green.



2. Type simple words: Type the letters indicated by the finger in the box. To play this game, go to: Applications --> Childs Play





3. Cut the caps on the right hand side and paste them on the Jokers.

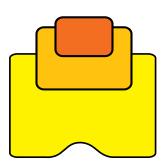


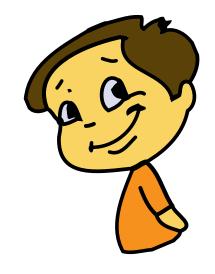




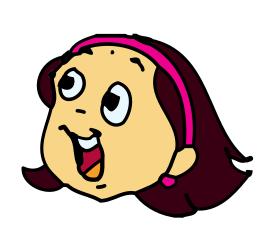








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#### 4. Group Activity:

## The teacher writes the following story in text editor and gives it to the students to do the following activity.

Read the story. Practise how to edit the text on the computer. To do this activity, form groups of two students each. Student A points out a word to be cut. He shows where it should be pasted. Student B carries out the action. Now Student B points out the word to be copied and shows where it should be pasted. Student A does the action. The two students then exchange roles and have fun playing with the text!



# Tenali Raman and the Difficult Task

Tenali Raman was a very wise and witty man in the court of King Krishnadeva Raya. Krishnadeva Raya was the ruler of the Vijayanagar kingdom. One day, King Krishnadeva Raya asked his courtiers, "Tell me, what is the most difficult job in the world?" The courtiers had a ready answer. They said, "Your Majesty, everyone knows that ruling the country is by far the most difficult job in the world." The king was pleased with their answer. But he

Tenali Raman said, "Your Majesty, I agree that it is difficult to rule a country. But I don't think that it is the most

difficult job in the world. There is another job which is

noticed that Tenali Raman was smiling to himself.

much more difficult."



"Tell us what that job is, Raman," said the king.

"A mother's job," said Raman, "It is much more difficult to keep a child happy than to look after a kingdom."

The whole court broke into loud laughter, and of course, Raman was asked to prove the truth of his words.

So Raman brought a woman and her young son to the king. "Now ask the kind Raja for anything that you want," he told the little boy.



"An elephant," said the little boy at once.

An elephant was immediately brought for him. "Put him into my bag," the boy said, "I want to take him home."

"But he won't fit into your bag, son. He'll come walking behind you when you go home," said the king.

The boy said, "I want him in my bag," he said, "My friends won't know that he is my elephant if I

don't take him home in my bag." He started crying.

The king and his courtiers tried everything they could. But the boy just would not listen. He cried and cried and cried. Then the mother said something to Raman, and he got a toy elephant.

She turned to her son and said, "Look, my son. Here's a small elephant which is much more beautiful than the big elephant. It is wearing a

garland, and there is a golden umbrella on top of its head. It has wheels so that you can pull it behind you wherever you go. It will fit easily into your bag.

Tell the man to take away the big elephant. Your bag will break if you put him in it, and you can't take him to your friend's house because he is so big." The boy stopped crying.

The little boy and his mother went away happily.

The king, wiping the sweat from his brow, said, "Raman, I agree that a mother's job is the most difficult job in the world."



## Project

Do project 6 given in lesson 9.

# Explore!

- 1. Find different ways to copy and paste words [Other than clicking the toolbar icon].
- 2. Explore how to find a particular word in the text written on the computer.
- 3. Explore other options of the Tool bar such as Redo.

# Teacher's

- Begin the class by revising what the students already know about writing using a computer. Create a short cut for the text editor application on the desktop. Open text editor and ask the students to note the options, similar to other activities --- new, open and save. Emphasize that the functions of these options remain the same across different activities. Revise the function of space bar and enter key to refresh their memory. Remind the students that it is important to save their work by using the save icon.
- Type a list of words from a topic in another subject. For instance you can write a list of the foods we eat --- fruits, vegetables, pulses and animal products. Now select a word at the top of the list and cut it (using the scissors on the menu bar). As the students note what you do on the computer, they will wonder where it has gone. Now paste it at the end of the list. Explain to the students that the computer stores the cut item. When we specify the place to bring the word, it retrieves the word and pastes it there. You can teach the students copy option, in a similar way.
- Draw the students' attention to how the symbols of cut, copy and paste represent their functions. For example, scissors are used to cut and you paste something on a pad, and there are two sheets one behind the other in copy. This will help them understand and remember the functions of these options clearly.
- Summarise the lesson and allow the students to practise. Ask the students to refer to a chapter they are learning in science/environmental studies and write 10 important words as a list. Tell them to put the words in alphabetical order using the edit --- cut, copy and paste option. Finally, ask them to save the list.

#### **Further Reading:**

http://www.aarp.org/learntech/computers/howto/a2002-07-16-cutpaste.html http://www.activitiesforkids.com/printout/cutcopypaste.htm http://www.lollie.com/happy/cutandpaste.html



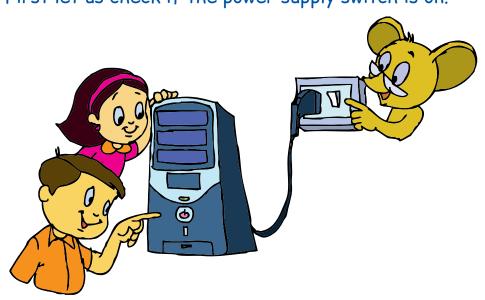
# Computer Start Up and Shut Down



In this lesson you will learn:
About Start Up and Shut Down of a computer.

Jyoti: Moz, the computers are switched off when not in use to save electricity. Can you please start the computer for us?

Moz: Ok. First let us check if the power supply switch is on.



Moz: Locate the Power button on the CPU and press it lightly.

Jyoti: The small light on the CPU is on and it is blinking! Moz: The light indicates that the computer is switched on.



#### Switching on a computer

Computer is a machine that works on electricity. Parts of the computer like the CPU, monitor, mouse and keyboard require electricity. The 'Power' button on the CPU is used to switch on the computer.

Jyoti: There is nothing on the screen as the monitor is off.

Moz: Yes. Press the button on the monitor to switch it on. This button is called a **toggle** switch. To switch off the monitor you press it again.

Jyoti: The monitor also has a small light indicating that it is on.

Moz: Correct. Most of the monitors have an on/off indicator light.

Tejas: Why is it taking so long to show the desktop?

Moz: It is getting everything ready for your use.

This is called Start Up or Booting.



Start Up is the sequence of actions done by the computer when it is switched on. This is also called **Booting**.



Tejas: Where is the desktop with icons? What is this username being shown on the monitor?

Moz: Ok. First answer a few questions. What do you do when someone rings the bell at your home?

Jyoti: We open the door and check who it is. We let them into the house only if we know the person.

Moz: Similarly a computer needs to check if you have permission to use the computer. The computer compares the **username** you enter, with the names of the users that have been stored on it.

Moz creates usernames and passwords for Tejas and Jyoti.

Jyoti: I have entered jyoti as the username, but now it is asking for a password. What is it?

Moz: Each username has a key which is called a **password**. The password is a secret word, letters or numbers known only to you and the computer. You will be able to use the computer only after entering the correct username and password.

# How to start using the computer:

- 1. Enter the correct username.
- 2. Enter the password.

Jyoti: All students have their own username and password!

Moz: Correct. The username is also called **login**. Once you enter the

username and password, you will be logged into the computer.

# Login and password



- When a computer is used by more than one person, each user is given a username and password to access it.
- If the username and password are not typed correctly, the dialog box prompts you to enter them again.

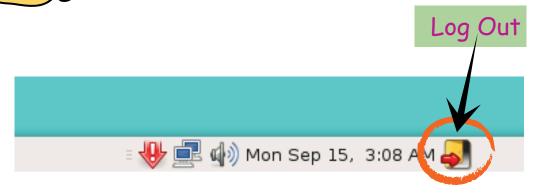
Tejas: Now that I have my own username and password, will Jyoti be able to see my files when she logs in?

Moz: No, each user sees only their own desktop and files created or saved by them.

Jyoti: I can now have a different wallpaper on my desktop.

Tejas: What do I do when I finish using the computer?

Moz: You have to **Log Out** of the computer using the logout icon. It is just like locking the door of your house when you go out.



Tejas: Once I log out, can others login to the same computer? Moz: Yes. Anyone who has a username on a computer will be able to use that computer.



## Log Out

Log out is the action of closing one's access to the computer.

Jyoti: If we have finished using the computer, should we not shut it down to save electricity?



Moz: Yes. Select the **Shut Down** option near the logout icon to turn off the computer. Please note that it takes some time to shut down. This is because the computer is closing the activities that it started at the time of booting. We should not switch off the power till this is complete.



#### Shut Down

Shut down is the action of closing all the activities and turning the computer off.

Jyoti: The light on the CPU is off now. Let us switch off the monitor too.

Moz switches off the power supply after the shutdown procedure is completed.

#### How to Shut Down:

To shut down a computer, select the Shut Down option from the dialog box. The electric supply to the computer should be switched off only after the lights on the computer go off.

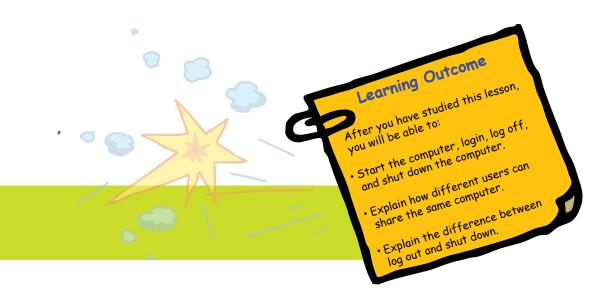
Jyoti: What should we do now?

Moz: Revise what you have learnt this year in the computer class and work on the projects.

Tejas: Moz, it was fun learning computers with you. Where do you plan to go on your vacation?

Moz: Timbaktu. Find out where it is.

See you next year. Chin Chinaki...







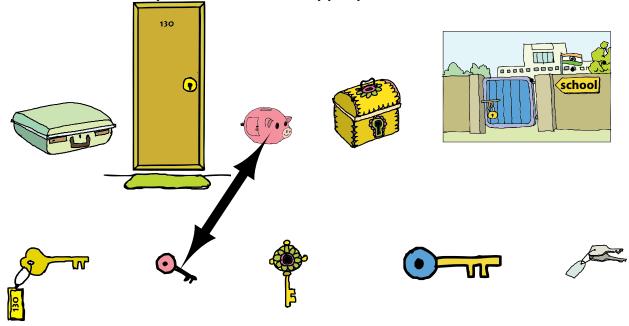
1. Jyoti wants to start the computer. The different steps to start, use and shut down a computer are given below. The steps are jumbled up. Help her by numbering the steps in the correct order.

	Switch <u>o</u> ı	n CPU	power	•							
	Us <u>e</u> r des	ktop is	s visib	le							
	Close one	's acc	ess to	the c	ompu	er					
	Enter <u>P</u> as	sword	1								
	Switch of	ff mor	nitor a	nd po	we <u>r</u>				8	9'	
	Switch or	n <u>M</u> oni	tor					2		3	
	<u>C</u> lick on L	.og ou	ŀ					4	Y		
	Shut dow	n com	puter								
	Enter <u>U</u> s	ernam	e								
									4		
											_
Find o red.	ut which wo	ord is	forme	d by d	combii	ning al	l the	lette	rs und	derlined	l in
							J				





2. Match the keys below to the appropriate lock.



3. Unscramble the words in the left column and then match them with those in the right column:

MERUASNE	BOOTING
OGINL	LOGOUT
WPDAROSS	USERNAME
TGUOOL	LOGIN
GBOTOIN	PASSWORD



- 4. Are these statements true or false.
- 1. We should keep the password a secret.

-----

2. If you want to use a computer, you should log out.

-----

3. You should type the correct username and password to be able to use the computer.

-----

## 5. Match the following.

Computer knows me by this name	Password
When I finish using a computer, I do this.	User Name
I can do this if I type in the correct user name and password.	Shut Down
A secret word the Computer and I know.	Login
To turn off the computer I have to do this	Log Out

6. When should Suhas open the door? Why?







1. Starting a game, playing and ending a game are similar to starting, using and shuting a computer. Play Educational Suite Gcompris games and observe the similarity.



- 2. List the activities that you do to get ready for the school. Just as you do several things before you start a day at the school, the computer also does several actions before starting.
- 3. List the different things that you do when you get ready to leave school. To do this activity, form groups of five students each. Just like you, the computer also does several actions when you shut it down.
- 4. Make a list of three objects that have a lock. To do this activity, form groups of five students each. Each group selects a different object, for example, suitcase, cupboard, etc. Discuss how you would open them. Can you use the key of one object to open the other? Why not?
- 5. Take two keys and trace their outline on a sheet of paper. Note the similarities and the difference between the two keys.



# Project

Do project 7 given in lesson 9.

Explore!

- 1. What happens when you enter your username and password in capital letters? Now type in small letters, and observe what happens.
- 2. Where else are passwords used?

# Teacher's Corner

- Begin the lesson by asking the students whether they have observed the teacher or a family member start a computer. They might mention switching on the buttons, entering some word, after which the desktop is seen. Tell the students that you will now start the computer and that they should observe carefully what you do.
- Switch on the power, the CPU and the monitor. (If you are using a laptop, inform the students that it has to be charged for use. Demonstrate how the wire is connected and they can note that the battery is getting charged by looking at a the relevant indicator). Ask them to note the light on the CPU near the power button. Tell them that pressing the button on the CPU starts the computer. Ask the students to see if the monitor has a similar button and a light near it. Switch off this button and show that the monitor is switched off. Now press it again to resume working. Tell the students that the switch on the monitor is called the toggle switch. (The location of these buttons can vary according to the kind of computer/monitor you are using).
- When the computer is ready, draw the students' attention to the dialog box. Tell them that you are entering your username which in turn asks for password. Inform the students that password is the key and it has to be entered correctly. You may use the analogy of a lock and a key to explain the use of username and password. Emphasize that the password has to be kept a secret, so that others do not access, change, delete or misuse your important files.
- Tell the students that when the computer is not in use, monitor should be switched off to save electricity. You can now teach them how to log out of the computer. Explain that logging off does not switch off the computer but allows other users of the computer to use it. Now demonstrate how to switch off the computers. Show them that the lights on the CPU go off and only after this should the power switch be turned off.
- Explain why it takes some time to start and shut down a computer. The booting
  process involves checking and starting the system. A similar check is done when the
  computer is shut down. Note that all activities have to be close the before shut down.
- Summarise the procedures to start the computer and to turn it off. Inform the students that they should do these operations only under the supervision of their teacher or family members.

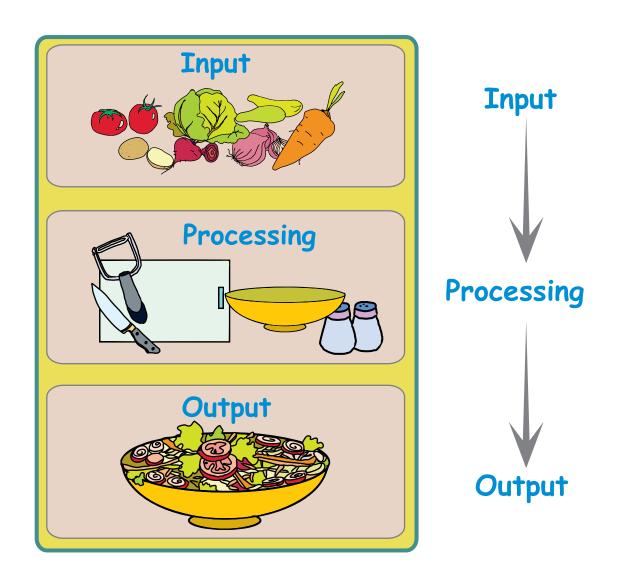
#### **Further Reading:**

http://en.wikipedia.org/wiki/Logging\_(computer\_security)



# Project 1 (Lesson 2)

List at least two nutritious and healthy food items that you like for example, soup, salad. Find out from which country or region each item originally came from. Tell the class how the food was prepared.



# Project 2 (Lesson 3)

#### Take a small ball.

Bounce the ball with one hand and catch it with the other hand. The path of the ball from one hand to the other should be V shaped. Follow the complete path of the ball with your eyes. Repeat this exercise by alternating the bouncing and catching hands.





Toss the ball from one hand to the other in an inverted U shape. Follow the ball with your eyes. Repeat this exercise by alternating the tossing and catching hand.

What games are played with balls? (example: cricket, football).
Find out the stretch exercises that are done before these games.
Learn these exercises and share these with your friends.

# Project 3 (Lesson 4)

List the items usually seen in each of the following places. Observe the arrangement of those items.

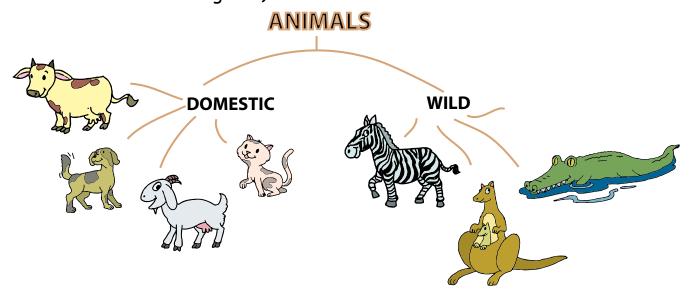
- Library
- Grocery shop
- Kitchen in your house
- Your study table
- Post office

Form groups of five students each. Each group selects one place and discusses how the items are arranged there. They ask each other questions such as "Why are the items arranged in this way?", "Can the items be arranged in any other way?" Draw a picture showing the place and items. Different students can do different parts of the drawing.



# Project 4 (Lesson 5)

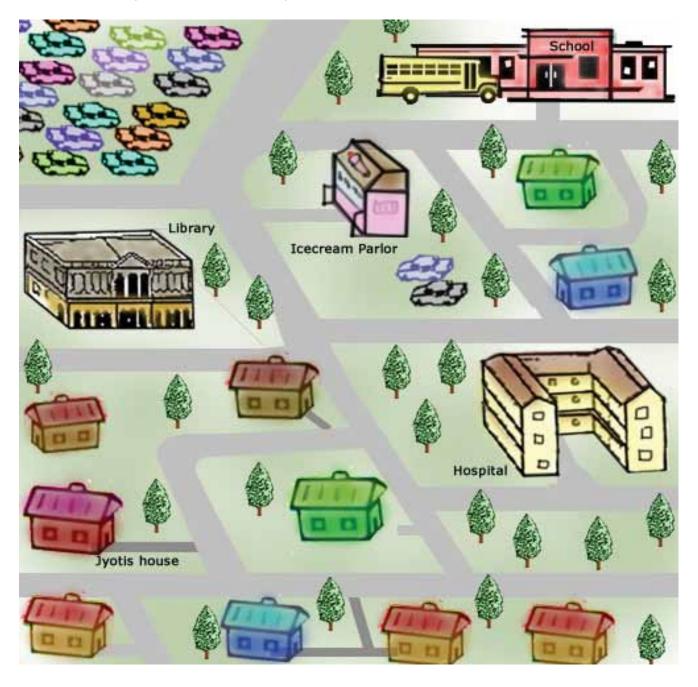
Draw your family tree. Exchange the drawing with another student sitting next to you. Find out about his family. Can you show any thing else that you know in the form of a tree? If yes, draw it along with your partner and explain it to the class. (Example: Classification of animals in a tree diagram.)



# Project 5 (Lesson 6)

Using the four directional arrows draw the paths from the School to Jyoti's house in the picture given below.

Hint: On the way to Jyoti's house there is an icecream parlour, a hospital, and a library.



# Project 6 (Lesson 7)

Prepare a Quiz using the text editor. Form groups of five students each. There are three steps in this project.

Step 1: Select one of the following topics. One of your text books should have the topic that you select.

Animals Shapes and colours

Birds Weather

Plants Sources of water

Parts of a body

Days of a week, months

Measurements

Food Indian Money

Types of houses Weights

Step 2: Open the lesson related to the topic. Pick some words related

to the topic. (An example is given below).

Example: Topic selected - Shapes and colours. Shapes: Square, triangle, rectangle, circle.

Colours: Red, green, yellow, blue, white, black, orange.

Step 3: Jumble up the selected words and prepare a quiz. The quiz can be fill in the blanks with missing letter or match the following or a crossword puzzle with the words, or simply the jumbled up words. Give an interesting title to the puzzle. Give instructions about solving the puzzle. Enter the puzzle in the computer using text editor. Save and Print the puzzle. Exchange the puzzles between groups and solve them. Exchange the puzzles with other groups and give them the quiz.

Title of the quiz: Shapes and Colours

Question: Find the names of shapes and colours from the following jumbled up words.

- 1. ERSUQA
- 2. TIRELGAN
- 3. WOLLEY
- 4. CLAKB
- 5. CLCIRE
- 6. EDR

- 7. ANGELCRET
- 8. ITHWE
- 9. ENGER
- 10. ANOREG
- 11. SEPHAS
- 12. LORUOCS

# Project 7 (Lesson 8)

Form groups of five students each. Select one of the following topics and discuss in your group. Compare Start Up, Shut Down, Login and Password of a computer with various actions in the activities that are given below.

- 1. Why is there a watchman at the gate of your school? What does the watchman at the gate of your school check when you enter the school?
- 2. What do you need to get into a train or an aeroplane?
- 3. How is a vehicle (scooter or car) started and stopped?
- 4. What are the checks that you do on your cycle if it does not move ahead?



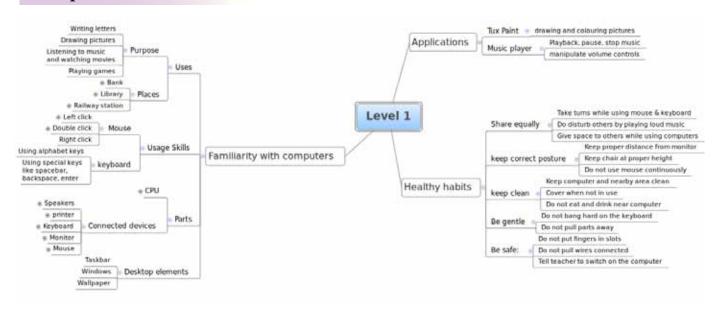
Now prepare a summary of what you discussed and give a presentation in the class. You can make a short play where you show what activities you do. For example, the checks performed while entering a school can be shown in the play. One student acts as a watchman, one as a mother bringing her child to school, one as a stranger and others as students.

Not	es:			

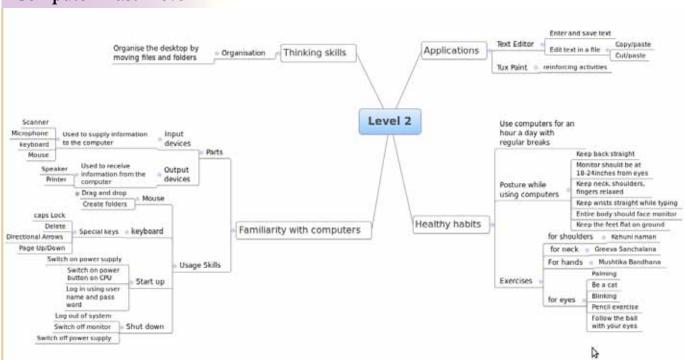




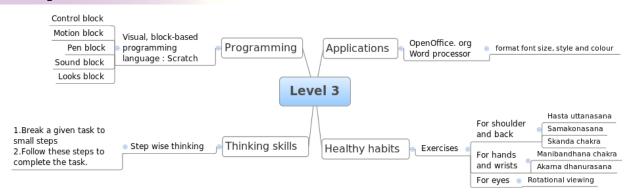
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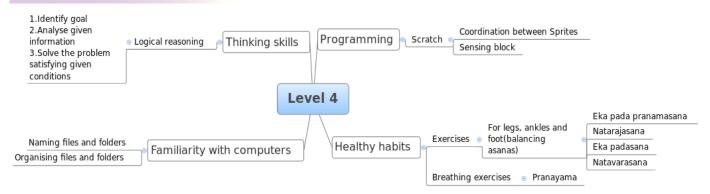


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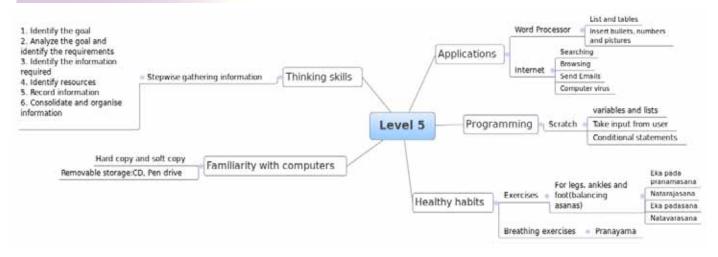


#### Computer Masti Level 4



#### Computer Masti Level 5

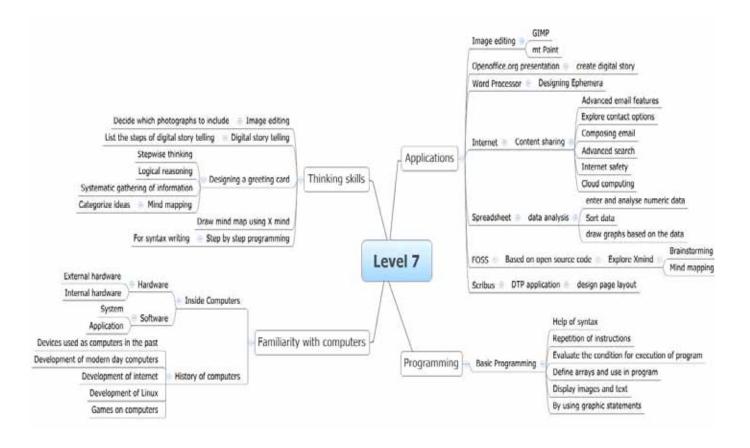
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#### OpenOffice.org Presentation Create presentations Enter a data in spreadsheet. do simple Generate ideas - Brain storming calculations like Categorize ideas . Mind mapping Thinking skills sum, percentage Applications Synthesis of information OpenOffice.org Spreadsheet and average on the given data Multiple categorization To draw graphs for representing data Level 6 to describe the sequence of steps



#### Computer Masti Level 7



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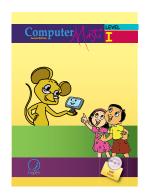
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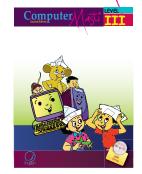
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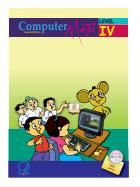
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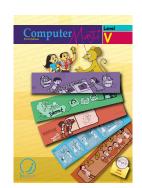
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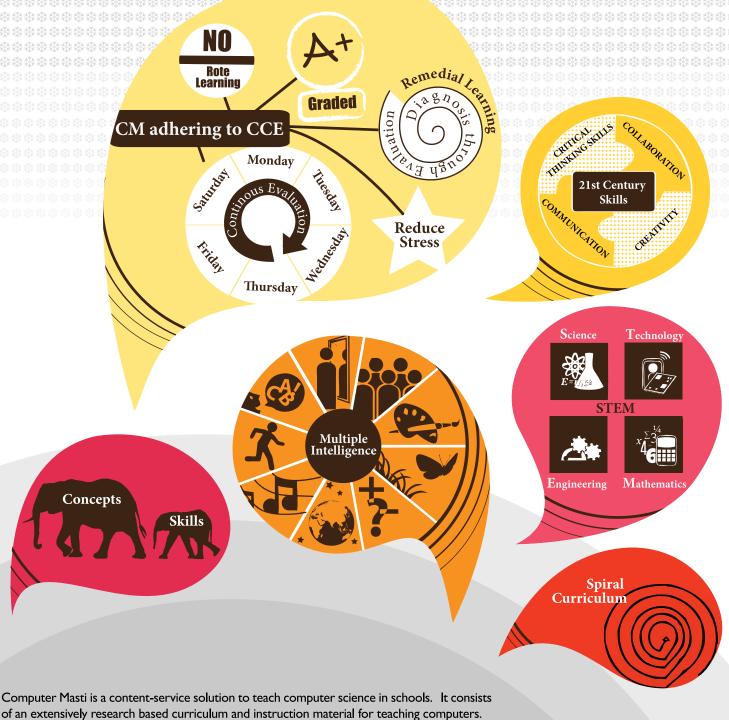








The CD contains the Computer Masti Toolkit (for Windows Operating System) for the applications used in the book. Please write to us at <a href="mailto:info">info</a> masti. com for further information on Computer Masti.



Computer Masti is a content-service solution to teach computer science in schools. It consists

• Fun is an important element of learning in Computer Masti.

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- · Worksheets, activities and projects are in line with continuous and comprehensive evaluation (CCE) guidelines and captures higher order thinking skills (HOTS)
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