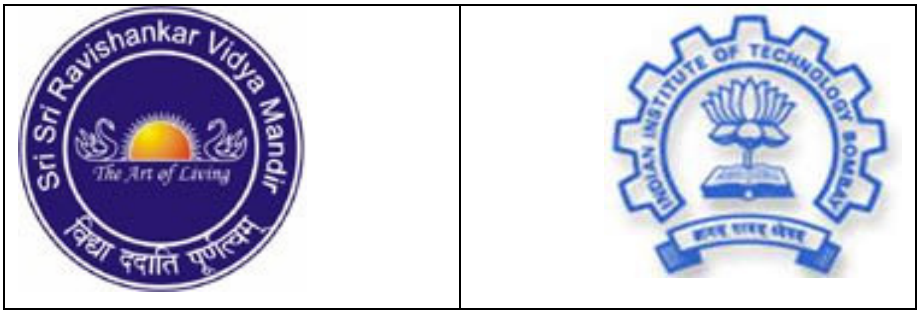
Teaching Material for 3rd Standard

Release 2007

(This document is - Aug 2007 version)



Sri Sri Ravishankar Vidya Mandir (SSRVM)

in collaboration with

Indian Institute of Technology, Bombay (IIT)

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SSRVM Curriculum, Computer Science, 2007 Edition

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SSRVM Curriculum, Computer Science,
Teaching Material for 3rd Standard, 2007 Edition

Preface:

This teaching material is based upon the model computer science syllabus defined by the SSRVM Academic Council, which gives a week-wise schedule for the topics to be taught for computer science at the 3rd Std level. This teaching material gives a brief introduction to each topic, some suggested lesson plans for the teacher and worksheets for the students. The syllabus and this teaching material are available freely for download and distribution from www.ssrvm.org, under the **Creative Commons license** as described on the previous page.

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Introduction (Extracts from the Model Curriculum Document):

The computer curriculum for each standard is broadly divided into three groups:

1. **Concepts**: Learning computer science concepts that are generally useful in many areas as well as some concepts that are specific to computer usage/functioning.
2. **Usage Skills**: Developing hands-on skill in the use of various hardware/software and programming packages/languages.
3. **Social Aspects:** Understanding ethical and security related issues of computer and Internet usage.

The emphasis is on understanding the concepts behind various computer-based activities, rather than just the usage skills of specific tools. It is hoped that such a concept-oriented approach will equip the children to be self-learners and enable them to cope with the inevitable advent of new tools and technologies of the future.

The design approach of this curriculum is to keep the primary section as elementary as possible, have a slight ramp up during middle school and further ramp up in secondary section to meet the syllabus prescribed for the Board exams.

For each standard, a 32-week schedule is given. Week Nos. 1, 2 and 3 are reserved for revision of the previous Standard. Week Nos. 8, 15, 24 and 31 are for revision of the current Standard. Week Nos. 16 and 32 are reserved for evaluation and assessment. Assuming 10-weeks of vacation, there is still a 10-week buffer for the teacher. This can be used for giving more time to difficult topics, for additional revisions/evaluations and for **project work.**

The teaching material attempts to be vendor-neutral (independent of software platforms). Lesson outlines are to be provided for both Windows XP and Linux Systems (Ubuntu). Hardware specifications and software installation and maintenance guidelines are provided in Annex C, D and E (of the main curriculum document).

A *creative commons* approach is used for generating the lessons and worksheets. All are welcome to participate in this effort. For each topic, detailed subtopics are listed; using which anyone interested can write the lesson outline. The lesson is then reviewed and after approval, may be incorporated into the curriculum. The author retains the rights over his/her work while at the same time allows others to use/modify it freely (without copyright issues).

3RD STANDARD

What: At the end of 3rd Std, a child should know:

- *Concepts*: Hardware/Software; Hardcopy/Softcopy; Directory structure; information organization, storage and retrieval; Basic step-wise reasoning; Notion of a computer language.
- *Usage Skills*: Use of common peripherals; Using CDs and external media; Auto-installation of software (from CDs); file and folder manipulation; Use of common applications; Simple commands in LOGO.
- *Social Aspects*: Ethics, respecting other's privacy; preliminary security awareness.

Why: At the end of 3rd Std, a child should be able to find programs in a computer (Navigational Awareness). After a quick revision of the previous Std, the child should move to new topics and applications. Emphasis should be on systematic functioning & thinking. Some abstract concepts (data versus program) should begin to get included.

How: There should be one class per week, roughly as per the following schedule:

Week	Topic	Lesson Number
3-1	**Assessment of knowledge retained from 2nd Std portion.**	
3-2	**Revision of topics from 2nd Std based on above assessment.**	
3-3	**Revision of concepts from 2nd Std continued.**	
3-4	Using the common features of text processing. *Such as: undo; cut-copy-paste; font; using Notepad or equivalent*	
3-5	Worksheets and lab exercises for text processing.	
3-6	Concepts of storage and directory structure. *Such as: folders, sub-folders; nested structures.*	
3-7	Organizing data files. *Such as: Naming conventions; folder hierarchies.*	
3-8	**Revision worksheets and lab exercises for file/folder concepts.** *Objective up to this point: basic exposure to handling of files.*	
3-9	Concepts of hardcopy and softcopy. *Such as: Printing a file as well as having it on the computer.*	
3-10	Using external media such as CDs and Pen Drives. *Such as: Reading from a CD; Writing to a Pen Drive.*	
3-11	Worksheets and exercises for moving files to/from external media.	
3-12	Start Menu: Navigation and finding applications of interest. *Such as: Launching MusicPlayer/Paint/Notepad from the Start Menu.*	
3-13	Navigation within the computer (locating files and programs). *Such as: by looking into various sub-folders (using 'folders' view?)*	
3-14	Worksheets for navigation in the computer.	
3-15	**Revision worksheets and lab exercises.** *Objective up to this point: continue with handling of files.*	

3-16	**Evaluation and Assessment.**
3-17	Using multimedia hardware and software such as Webcam. *Such as: Take your own photo using a pre-configured webcam.*
3-18	Concept of hardware versus software. *Such as: Webcam/Printer versus their controlling software*
3-19	Worksheets and lab exercises for above lessons.
3-20	Installation of software from a CD and its use. *Such as: by using the auto-install Wizard inbuilt into a game/lesson CD.*
3-21	Using some interactive educational programs from a CD. *Such as: from BBC or Discovery?*
3-22	Login/Logout and concepts of privacy. *Such as: password protection and access to each others' files.*
3-23	Awareness of viruses and malicious software. *Such as: Never click OK to anything that you don't understand.*
3-24	**Revision worksheets and lab exercises.** *Objective up to this point: move from handling text files to multimedia.*
3-25	Concept of step-wise reasoning, in general terms. *Such as: steps in going to market and buying a toy.*
3-26	Worksheets to show reasoning in various activities.
3-27	Concept of data versus program. *Such as: text entry versus text editor.*
3-28	Concept of simple programming. *Such as: Detailing out the steps involved in any activity.*
3-29	Notion of using a language for programming. *Such as: need for keywords for specific actions (ex. Do 10 times)*
3-30	Demo of some simple language commands. *Such as: using LOGO.*
3-31	**Revision worksheets and lab exercises.**

Title:	**Concept of hardware versus software . Such as: Webcam/Printer versus their controlling software**		
Date	June, 2007	**REF No**	3.6
Contributor	Semeena Kader	**Std**	3
		Reviewer	Usha Viswanathan
Brief Description:	This topic introduces concepts of Hardware and Software.		
Goal:	To become familiar with hardwares and their supporting softwares.		
Pre-requisites:	Familiar with computer . Should know about computer peripherals and basic applications.		
Learning Outcome:	Able to know about hardware and their controlling software .		
Duration:	1Session		
References:	http://www.webopedia.com/TERM/S/software.html http://www.computerhope.com/issues/ch000039.htm http://www.liv.ac.uk/HPC/HTMLF90Course/HTMLF90CourseSlidesnode3.html		

Detailed Description

Computer hardware is the physical part of a computer . The Monitor , Keyboard, Mouse, Printer, Web cam etc are examples for hardwares. These are items that you can actually **touch** or move from one desk or room to another.

Computer software can be defined as a *set of instructions* that tells the **computer** how to behave. These are the program or procedure are used to operate computer hardware.

Computer instructions or data, anything that can be stored electronically is software. The storage devices and display devices are the hardware.

The distinction between software and hardware is sometimes confusing because they are so integrally linked. For example, when you purchase a program, you are buying a software, but to buy the software, you need to buy the disk (hardware) on which the software is recorded.

Software is code or instructions that tell a computer and other related hardware how to operate. This code can be viewed and executed using a computer or other hardware device. However, without any hardware software would not exist. A computer without software is just like a car without driver. A hardware can not work by itself, there need a ***software driver*** to drive each hardware .

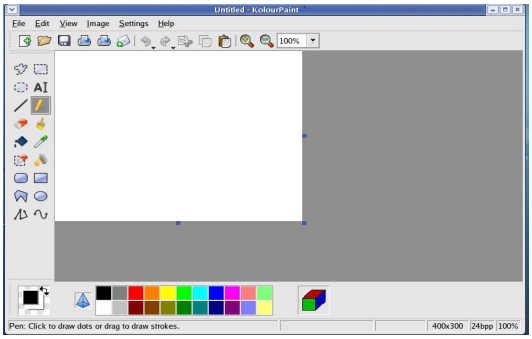
Figure a shows examples of some commonly used hardwares.

 mouse	 printer
 Web cam	 speakers
 keyboard	 monitor

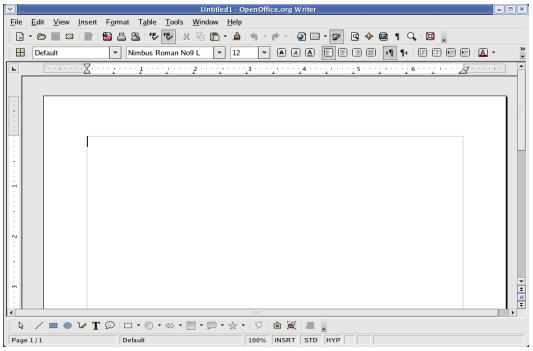
Figure a

Software is often divided into two categories:

1. Application Softwares : These programs are designed to accomplish specific tasks of the user. Application software is very powerful in writing letter, arranging files, managing accounts, drawing pictures and even playing games. Examples are Word processors (like MS word), Spreadsheets (like MS excel) and Accounting systems (like Tally).



Kolourpaint(In Linux)



Open office Writer(In Linux)

Figure b

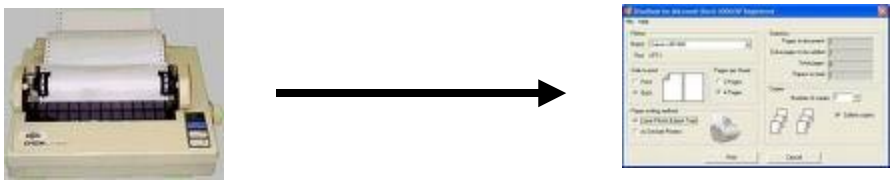
2. System Softwares: Programs that control and support operations of a computer system. It is a group of programs rather than one program. The system software includes operating system , virus scanner and utility programs .

Windows operating system

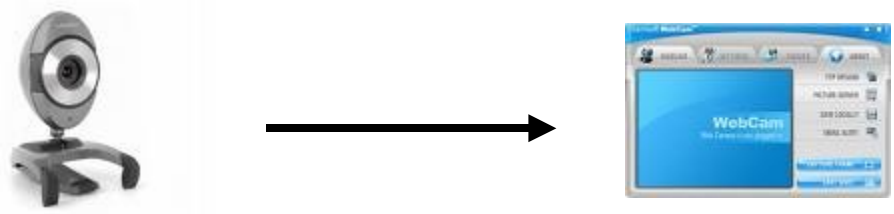
Ubuntu (linux) operating system

Figure c

SOME HARDWARES & SUPPORTING SOFTWARES.....



A printer with its supporting software.



A webcam with its supporting software.

Figure d

Lesson Plan Outline

1) You can start the class by asking the different parts of a computer. Get the student's responses.

2) Now introduce the term 'Hardware'. Ask them whether they have heard the term hardware? Explain what is meant by hardware. Now you can show them some of the hardwares like keyboard , speaker , printer , scanner , web cam etc.

3) Now comes software. To explain it take the example of a car and its driver . A car can not run be itself , there need a driver to drive the car . Similarly a computer hardware can not work by itself , we need a driver to drive it . We can call that driver as a 'Software' . So we must have a software to drive (or to make work) each hardware .

4) Again take example of different vehicles, for example a train and an airplane. Can an engine driver fly an airplane? No. Similarly a software can not drive more than one hardware . So in order to make the printer working , we need a software and in order to make a web cam working , we need another software .

5) Launch the printer software on desktop and show them printer and its software . You can say that if there is no such software , we can't use a printer . If there is facility , you can show some more softwares and hardwares like web cam and its software etc.

Worksheets

1. Tick the correct option:

	Hardware	*Software*
Compact Disc		
Spread sheet		
Web browser		
Monitor		

2. Identify which is hardware and which is a software.

 Hardware/ Software	 Hardware/ Software
 Hardware/ Software	 Hardware/ Software
 Hardware/ Software	 Hardware/ Software

Title:	**Concepts of hard copy and soft copy such as printing a file as well as having it on the computer**		
Date:	May 2007	**REF No:**	3.7
Contributor:	Semeena Kader	**Std:**	3
		Reviewer:	Farida
Brief Description:	This topic introduces concepts of soft copy and hard copy.		
Goal:	To familiarize the terms soft copy and hard copy.		
Pre-requisites:	Familiar with computer files.		
Duration:	1 Session		
Resources:			

Detailed Description:

HARD COPY

A ***hard copy*** is a printed copy of information from a computer. This term is now used by many people to represent all paper documents, including letters, books, print advertisements, catalogs, memos, order forms, and so on. Hard copy has the advantage of being accessible to everyone everywhere, without the expense of a computer. Sometimes it referred to as a printout.

HARD COPY

Printed on paper or another permanent media.

Figure a

Some examples for hardcopies

1. Computer printouts

It is the printed document from a computer printer.

Figure b

2. Tele-printer pages

A tele-printer is a typewriter-like terminal with a keyboard and a built-in printer. Tele-printer devices are mainly used in retail applications (you can see it In super markets) where receipts are necessary.

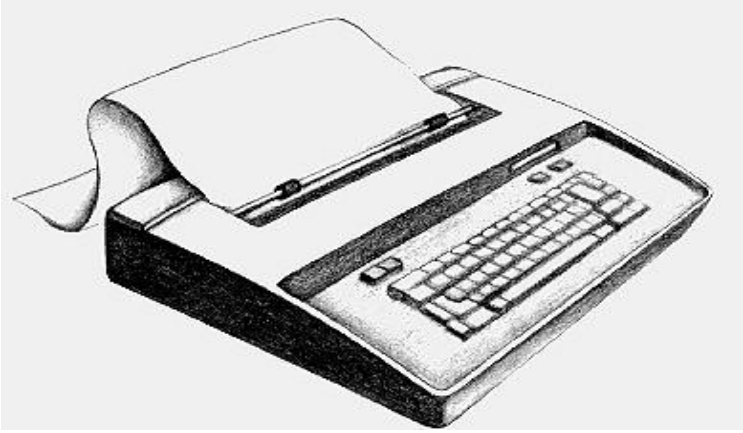


Figure c

SOFT COPY

The information viewed on a computer display is referred to as a ***soft copy***. Thus, a document that we created using paint/text editor/Open Office/Microsoft word is an example of a soft copy. Printout of the same file is an example of hard copy.

SOFT COPY

Displayed on screen of computer or by other non-permanent means.

Figure d

This is a file created using Open Office Writer (In Linux)

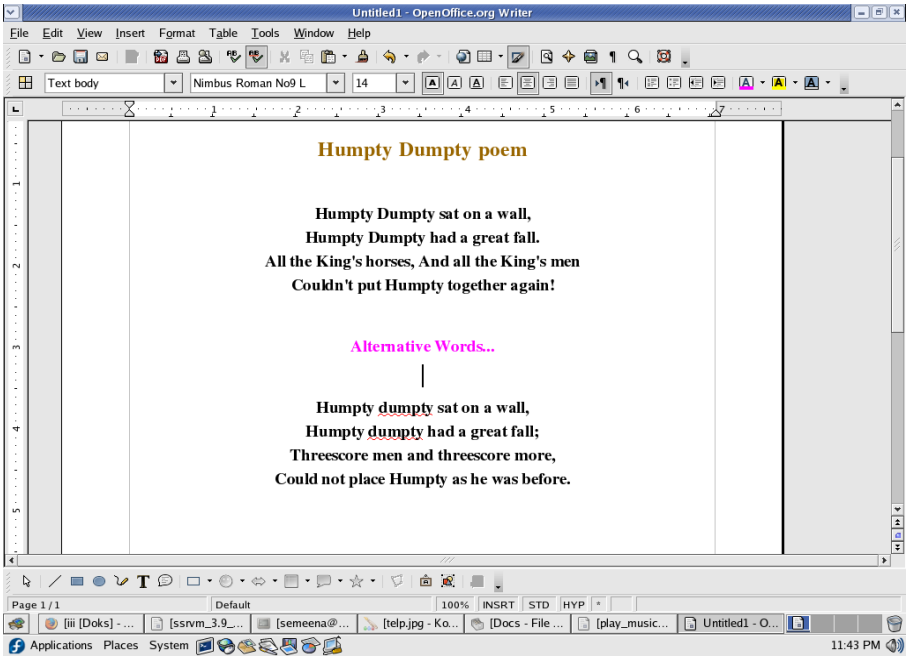


Figure e

What you see on the screen is referred to as **soft copy** of the document. When you get a

print out of this document, it will be termed as the **hard copy.**

Lesson Plan Outline:

3. Prepare for the class a sample doc file (for example you can create a file containing a poem in the text book for class III) and take a printout of the same file.

4. Refresh knowledge about previous lessons on files that have been covered in class II. Ask students 'How you create a file using paint/ text editor/ open office Writer? ' Ask them how can they save that files. Now introduce the concept of soft copy. Tell them that the files that are stored in computer are called as **Soft copy**.

5. Show them sample doc file in the computer. You can show other files of different kinds --- paint, text editor, office document.

6. Introduce the term **Hard copy**. Show them the printout of the file. You can say that printout taken from a computer printer is an example for hard copy.

7. Explain the difference between soft and hard copy. Tell them that while they can see both the soft and hard copy, they can actually touch and carry the hard coy with them conveniently.

8. Give examples for soft and hard copies. You can mention a couple of them and then ask them to think and give some more. What is seen on television and computer screen are examples of soft copy. Electricity and telephone bills, bills in restaurants, train tickets are all examples of hard copy that we come across in our daily life.

Activity [In lab]

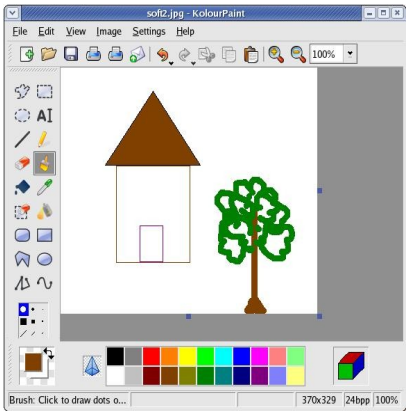
Objective: To make the kids understand soft/ hard copies

Using a scanner, scan a photograph of the program performed by the class at last year's annual day. Show them the scanned (soft) copy on the computer. You can say that what you see on the computer is the **soft copy.** Then take printout of the picture using printer and ask them whether it is soft/ hard copy. [Answer is: hard copy] You can also show them the snap that you scanned and ask them if it is hard or soft copy.

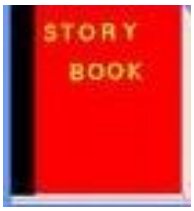
Worksheets:

1. Identify whether the following are soft copy or hard copy. Put a ✓ mark in the appropriate boxes.

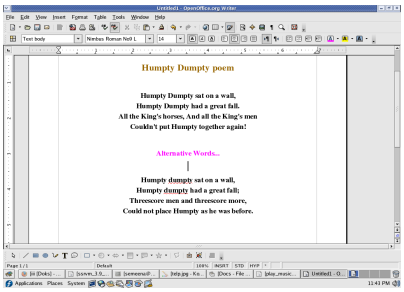
Soft copy ☐ Hard copy ☐



Soft copy ☐ Hard copy ☐

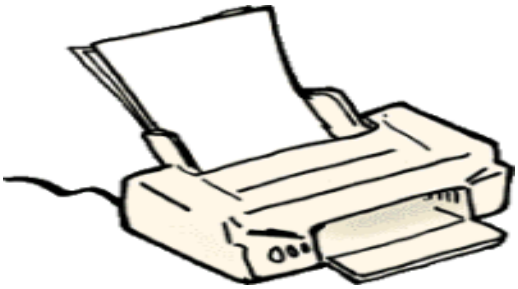


Soft copy ☐ Hard copy ☐



Soft copy ☐ Hard copy ☐

2. Below are the pictures of machines. Judge whether they provide hard copy or soft copy.



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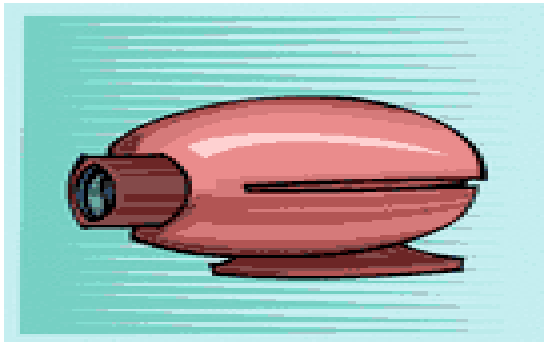

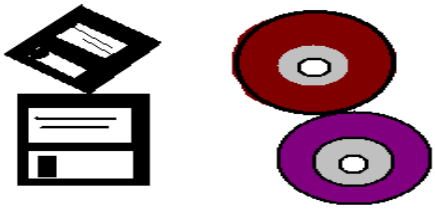

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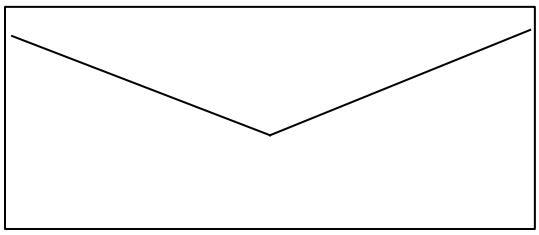

LETTER

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Title:	**Start Menu: Navigation& finding applications of interest such as: Launching Music Player/ Paint/ Notepad from the Start Menu.**		
Date :	May 2007	**REF No:**	3.9
Contributors:	Usha Viswanathan	**Std:**	3
		Reviewers:	Farida
Brief Description:	This lesson helps the student to find the application of interest and launching them from the Start menu.		
Goal:	The goal of the lesson is to make the student understand how he/she can navigate through the contents of the computer and launch the application of interest.		
Pre-requisites:	Awareness about different applications and fairly good mouse control.		
Duration:	One Session		
Resources:	http://en.wikipedia.org/wiki/Start_menu		

Detailed Description

In a Computer there may be lot of applications that are installed, so if you want to select a particular application of interest we will have to search the whole system. In '**Edubuntu'** the **Applications menu** on the **task bar** acts as the central launching point for different applications installed in the computer. See figure a.

Figure a

The Applications menu provides a customizable list of programs for the user to launch. It also gives options to search files, get help, and access the system settings. Thus the Applications Menu provides a much easier way to open programs, even for experienced users. Ultimately, the Applications Menu is a single point of access to different programs and other settings in a computer.

When the Applications menu is clicked we get a list of programs and applications from where we can search the application which we want to launch.

In Edubuntu, if we want to launch a music application, the **"Sound and Video"** option from the **"Applications"** menu allow us to launch all the applications related to audio and video. (See figure b)

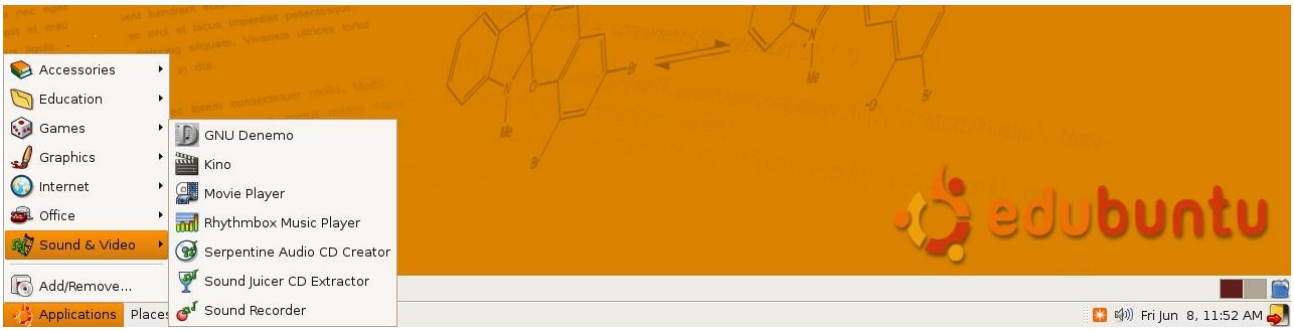


Figure b

To launch a text editor application, from the **Applications menu** select the **"Accessories"** option, we get a pop up list just as the one shown in figure c.

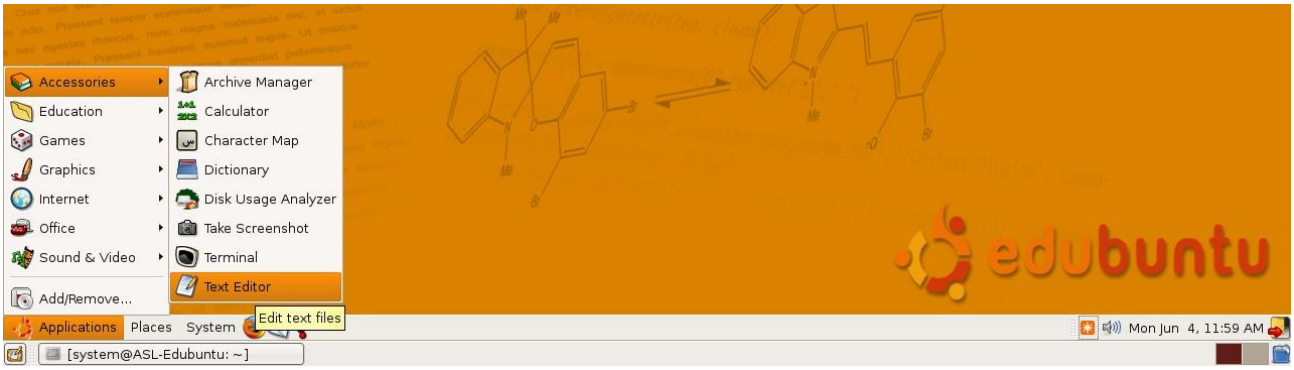


Figure c

Now click on the "Notepad (in windows)/ Text Editor (in Edubuntu) " option, the Text Editor application will be launched. From the same drop down list we can also launch the "Calculator" application also.

Lesson Plan

1. Start off the class asking the students names of some of the applications which they are familiar with.

2. Now ask them how they will launch that application, if the icon of the particular application is not on the Desktop.

3. Give some time and let them give you some suggestions.

4. Some kids who are familiar with the Start/ Applications menu will be enterprising. Now show them the “Applications Menu” on the Task bar.

5. Click on the Applications menu and show them the list of applications/programs that they can access.

6. Now launch a Music Player from the 'Sound & Video' option. Let them listen to some music.

7. Now open a Text Editor application, and type some data. Open some two three application which the kids are familiar with so that it will keep them interested.

8. Allow them to practice if possible.

Title:	**Open an educational game and play it, such as Kanagram, KHangMan**		
Date :	May 2007	**REF No:**	3.10
Contributors:	Farida	**Std:**	3
		Reviewers:	Usha, Malati
Brief Description:	Computer games can be not only fun but also serve as educational tools. In the *edubuntu* operating system, there are games that can improve the mental capacities. The present lesson presents two such games		
Goal:	To improve problem solving abilities of elementary school kids.		
Pre-requisites:	Familiarity with mouse and key board operations, running an application.		
Duration:	3 classes of half an hour each		
Resources:	http://www.kidsdomain.com/kids/links/Puzzles.html		

Detailed Description:

This lesson seeks to inform the learner about how computers can assist in sharpening mental capacitates. For this, we take the help of two games found in the operating system- edubuntu, namely ***Kanagram*** and ***KHangMan*.** These games will not only enhance the vocabulary but also provide training in multidimensional thinking, an important aspect in problems solving. Not to mention that students will enjoy playing them!

To start ***Kanagram***, select 'Applications' from the Task bar . Now under the 'Education' option, select 'Kanagram'. See figure a.

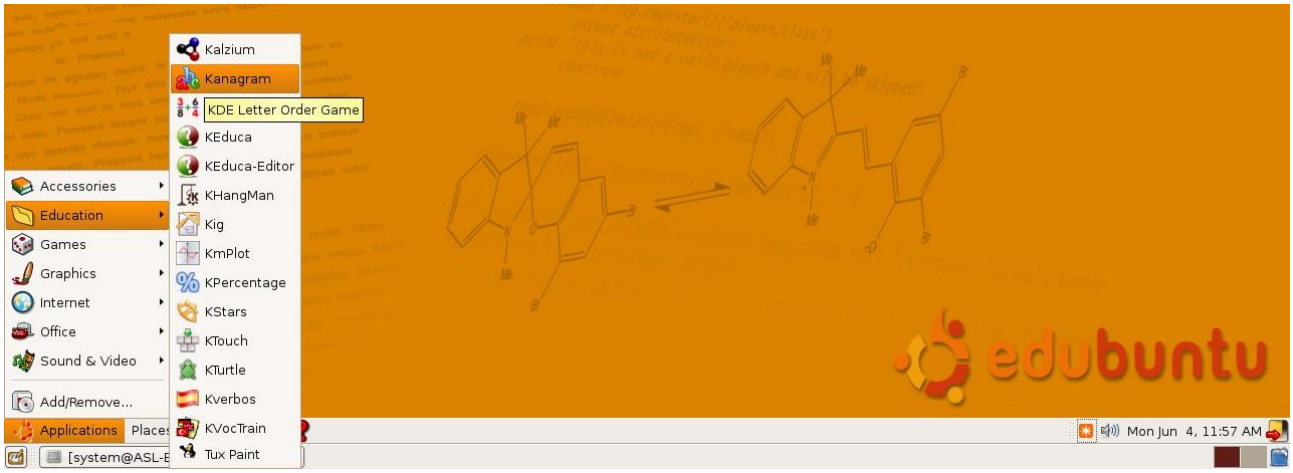


Figure a

Once, you open the **Kanagram** application, a window as you seen in Figure b will open

Figure b

In Kanagram, the student gets to solve a series of anagrams. You can choose from a list of

categories: fruits, vegetables, professions, clothing, world capitals, objects, inventions, computers, animals, sports, people, transportation and currencies. In case if the student is stuck and is not able to solve the anagram, they can even get a hint! See in figure c

Figure c

To start KHangMan, select 'Applications' from the Task bar. Now under the 'Education' option, select 'KHangMan'. See figure d.

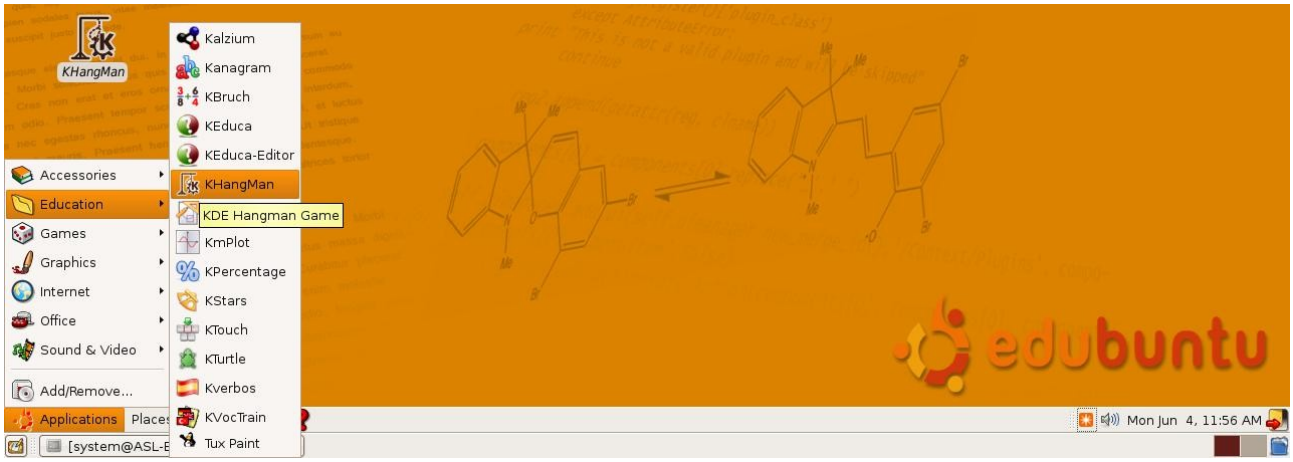


Figure d

When you open **KhangMan**, a window as you see in Figure e will open.

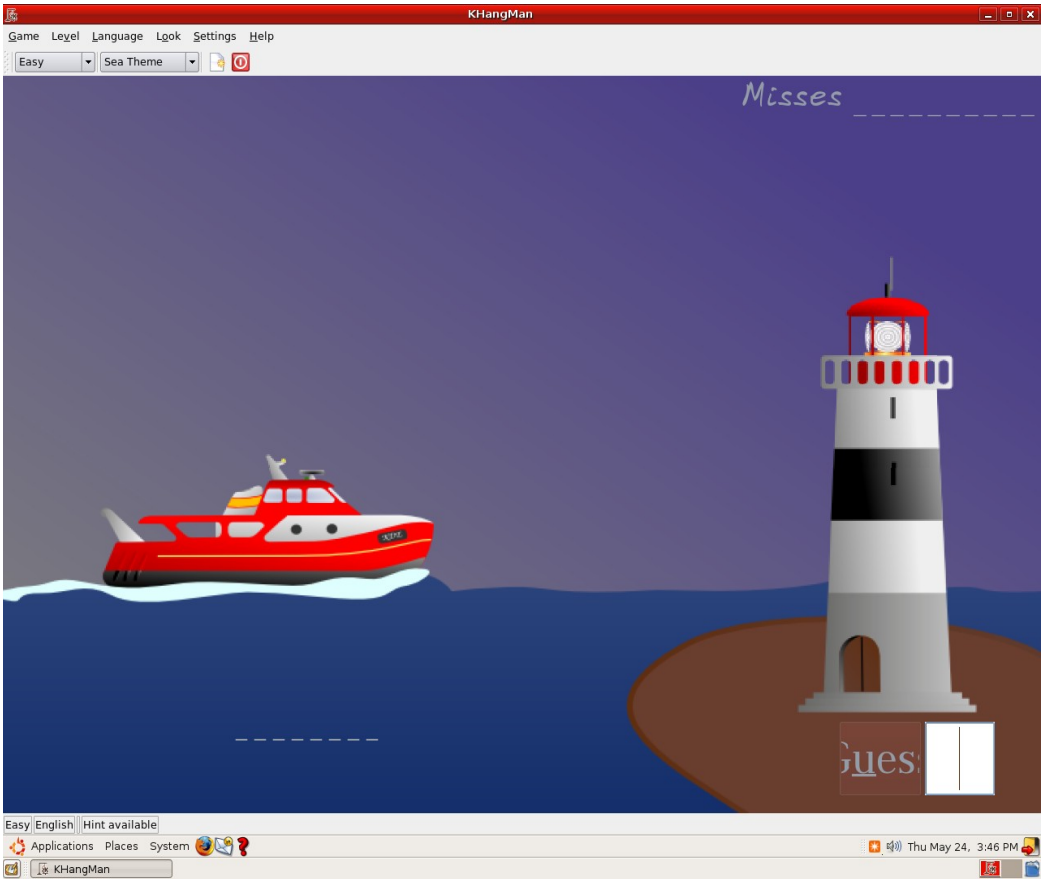


Figure e

KHangMan has four levels of difficulty: Animals (animals words), Easy, Medium and Hard. A word is picked at random, the letters are hidden, and you must guess the word by trying one letter after another. You enter the letter in the text box and you either press the Enter key or click on the Guess button to see if the letter belongs or not to the word. Remember that it is not important whether you type in lowercase or uppercase. If the letter belongs to the word, it takes its place, as many times as it appears in the word. If the letter does not belong to the word, it goes in the Misses field. Each time you guess a wrong letter, part of a picture of a hangman is drawn. You must guess the word before being hanged! You have 10 tries. After that, the correct answer is displayed.

You can change the theme of the background in **KhangMan**. You have already seen the sea theme in Figure e. The figure f presents the desert theme.

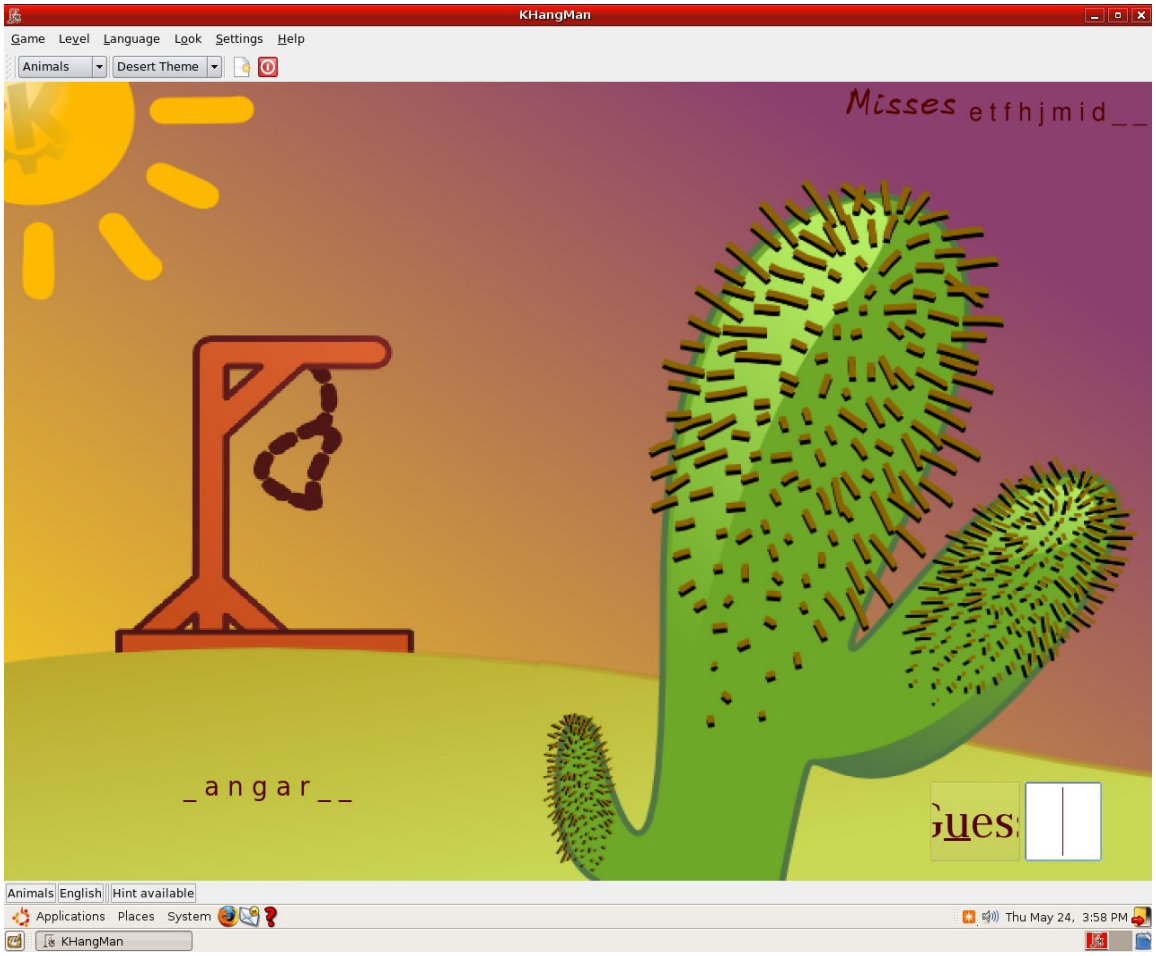


Figure f

Lesson Plan:

1. You can start the class by informing the students the importance of certain mental capacities for being an effective computer user. You can play anagrams in the classroom on the blackboard. The class can be divided into two groups, wherein one group converts a word into an anagram and the other group should guess it. Explain to the class what is meant by anagrams in the following manner, " In anagrams, alphabets used to form the word are presented in jumbled order and you have to set it in correct order so that the correct word is formed. For instance, an anagram as '**D R E**' would mean '**red**'." In the worksheet, more exercises are presented. The teacher may use them to arouse the student's interest in solving

anagrams.

2. Ask the students if they ever played games on the computer. Ask them what kind of games they played. You can further probe into whether they think playing computer games is helpful. If yes, in what way? Do they teach you anything? Arouse their interest by asking if they would want to play the anagram game they played in the class on the computer. Explain them the steps they need to follow to start the application. After the theoretical understanding is developed, take the students to the computer lab.

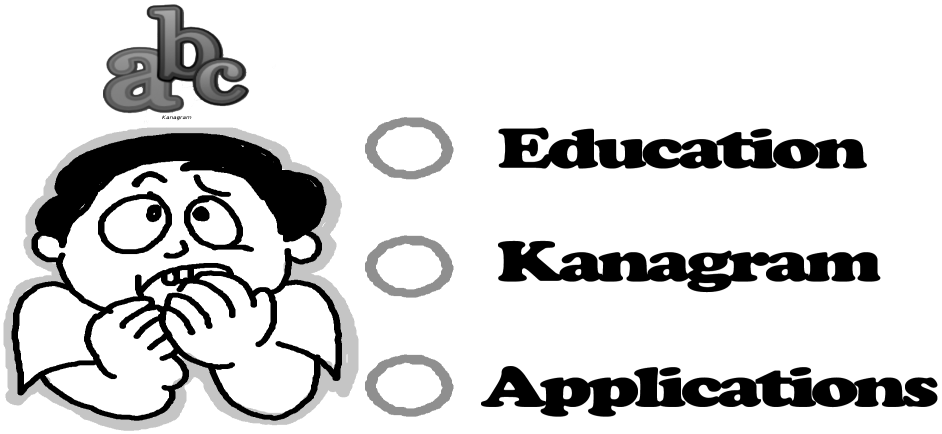
3. Demonstrate how to start **Kanagram**. As the students would be sharing the PC, you can give a different category of anagram to the different groups. You can ask them to solve anagrams of fruits, vegetables, computers, professions, clothing, animal, and transportation. You can include further categories according to your judgement of student's vocabulary.

4. **KhangMan** can be introduced on similar terms as **Kanagram**. You may play the **Hangman** game in the classroom wherein you put in the fill in the blanks for a particular word and the students have to guess the word. You may give them a hint as well. For instance, _ _ _ _. The guess can be it is round, you play with it, it comes in different sizes, and so on. The answer for this is '**ball'.** The class can be divided into two groups and let each group quiz the other.

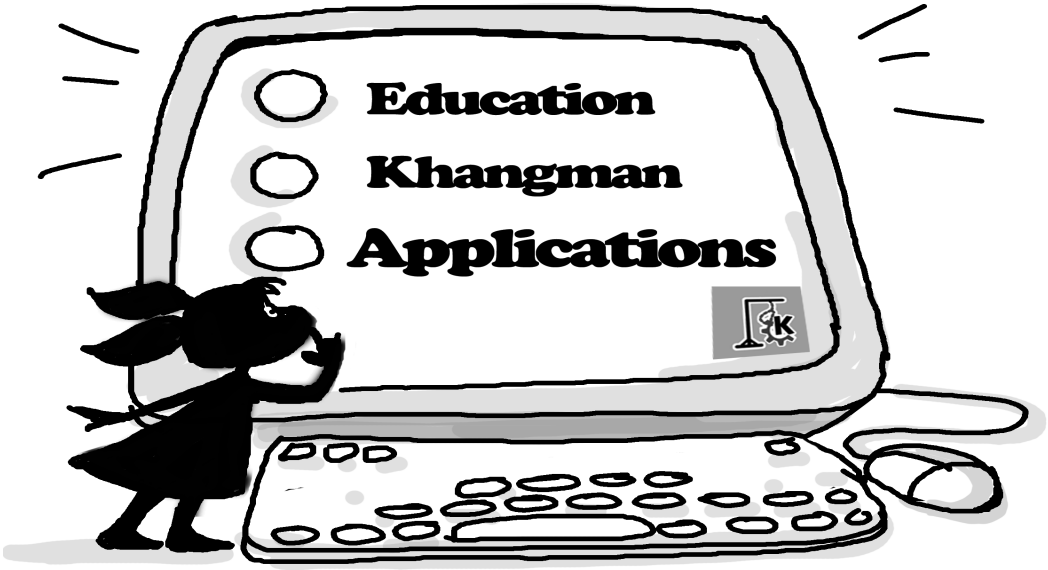
5. After you have given a demonstration, let the students play. You can alter the themes for different groups. Begin with animals and easy level so that students have success experiences and are enthusiastic about the game. Allow the students to play the two games for the next two classes so that each student gets to play each of the game for at least 10 minutes each.

Worksheet

1. Ramesh was absent when the teacher taught how to play **kanagram**, Tell him what steps he should follow to start the application

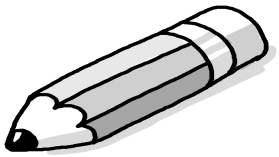
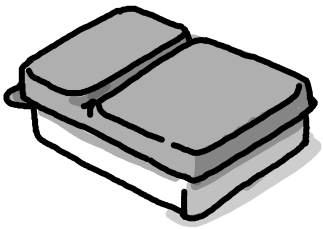
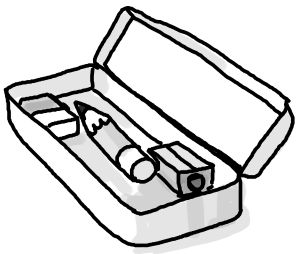
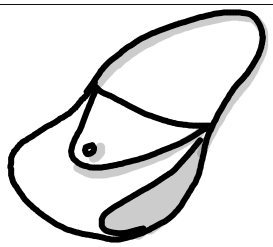


2. Sudha wants to play KhangMan, but has forgotten how to start it. Can you tell her the steps she should follow?

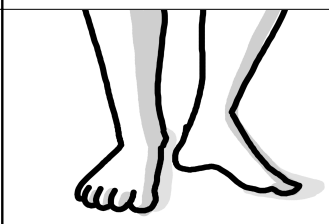
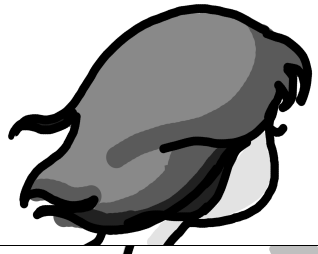
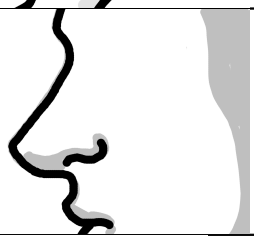
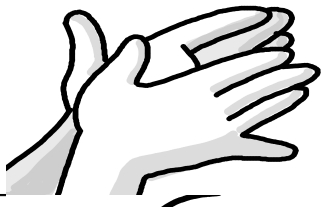


Some more classroom exercises:

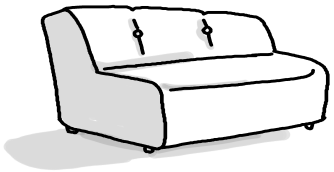
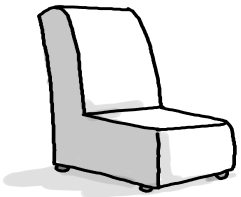
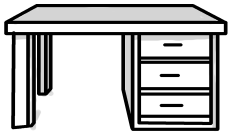
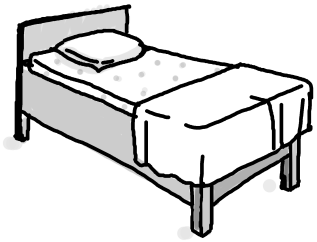
a) Following are some things you carry to the school everyday. Solve the anagrams by matching the columns.

S.No.	Anagram	Word
1	K B O O	
2	F I T F I N	
3	G A B	
4	C I P E N L	
5	X O B	

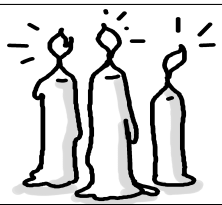
b) Following are parts of your body. Solve the anagrams by matching the columns.

S.No.	Anagram	Word
1	R A E	
2	O S E N	
3	Y E E S	
4	D S N H A	
5	P I S L	
6	E G S L	
7	R I H A	

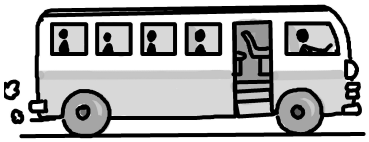
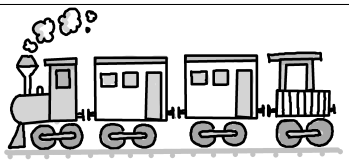
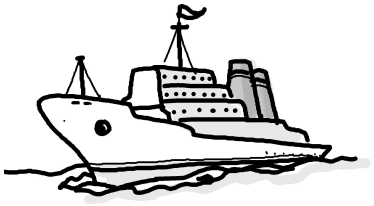
c) Following are the names of furniture you may see in the house and school. Solve the anagrams by matching the columns.

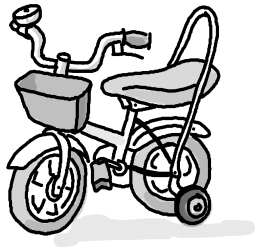
S.No.	Anagram	Word
1	D B E	
2	A S F O	
3	B L E A T	
4	H R C I A	
5	E B N H C	

d) Following are names of the things you may see at a birthday party. Solve the anagrams by matching the columns.

S.No.	Anagram	Word
1	**F G T I**	
2	**D L E C A N S**	
3	**B I R B N S O**	
4	**K C E A**	
5	**L O B L A N O**	

e) **Following are names of the vehicles that are used for transportation. Solve the anagrams by matching the columns.**

S.No.	Anagram	Word
1	**R N T I A**	
2	**P S I H**	
3	**L C Y E C**	
4	**S B U**	

5	**R A C**	

f) Following are names of animals. Guess the word with the help of hints.

1. _ _ _ _

Hints:

a) It swims under water

b) We can eat it

c) It has two eyes

2. _ _ _

Hints:

a)It eats grass

b)It gives us milk

c)It has four legs

3. _ _ _ _ _

Hints:

a) It has four legs

b) It is found mostly in desert

c) it stores water in itself

4 ._ _ _ _

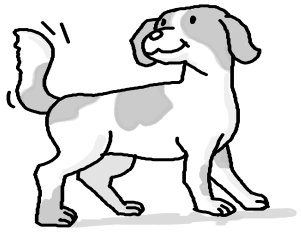
Hints:

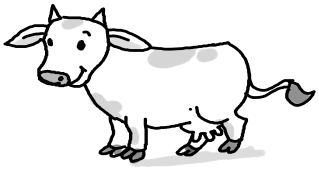
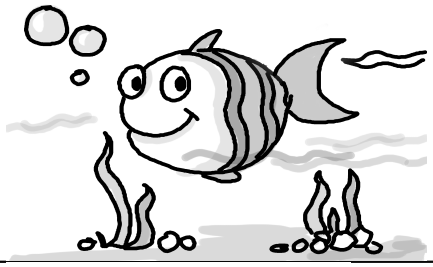
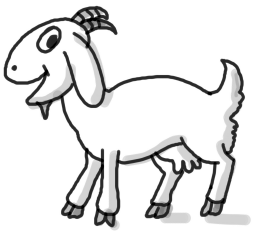
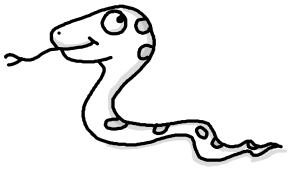
a) It has four legs

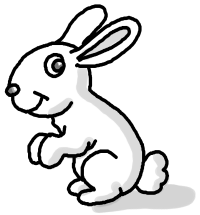
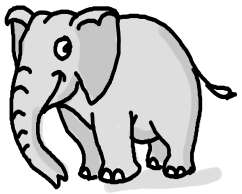
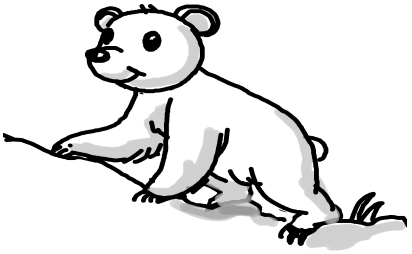
b)It can walk very fast

c)It can be used in transportation

g) Following are names of animals. Solve the anagrams by matching the columns.

S. No.	Anagram	Word
1	T O A G	

2	**B A Z E R**	
3	**O G D**	
4	**T A C**	
5	**O W C**	
6	**B R A E**	
7	**B I B T A R**	

8	**T H A E E P L N**	
9	**K E N A S**	
10	**S H F I**	

Title:	**Development of rudimentary typing skills. Such as: using a typewriter game.**		
Date:	June, 2007	**REF No:**	3.11
Contributers:	Usha Viswanathan	**Std:**	3
		Reviewers:	Farida, Malati
Brief Description:	This topic helps the student in developing rudimentary typing skills.		
Goal:	The purpose of this segment is to familiarize students with the typical computer keyboard. Students will learn how to correctly place their hands on a keyboard and the proper finger movements that improve typing speed and accuracy.		
Pre-requisites:	Familiarity with the keyboard.		
Duration:	2 Session		
References:	www.bbc.co.uk/schools/**typing**/ www.ababasoft.com/**typing**/**typing**_lesson01.html www.nimble**finger**s.com/index_1.html http://www.howdyfolks.net/typing/typingmanual.html For more typing exercises refer: www.nimble**finger**s.com		

Detailed Description:

The purpose of this segment is to familiarize students with the typical computer keyboard. The goal here is not to create proficient typists, but only to give the students a good foundation from which they can further develop their typing skills.

While typing, most people remember the importance of using the correct key reaches, but there is a tendency to forget the importance of posture. So always make sure you are sitting up straight, your feet flat on the floor. Keep your elbows close to your body, your wrists straight and your forearms level.

Before typing let us see what the different fingers of your hands are called? Figure a shows the picture of both the left and right hands with the names of different fingers.

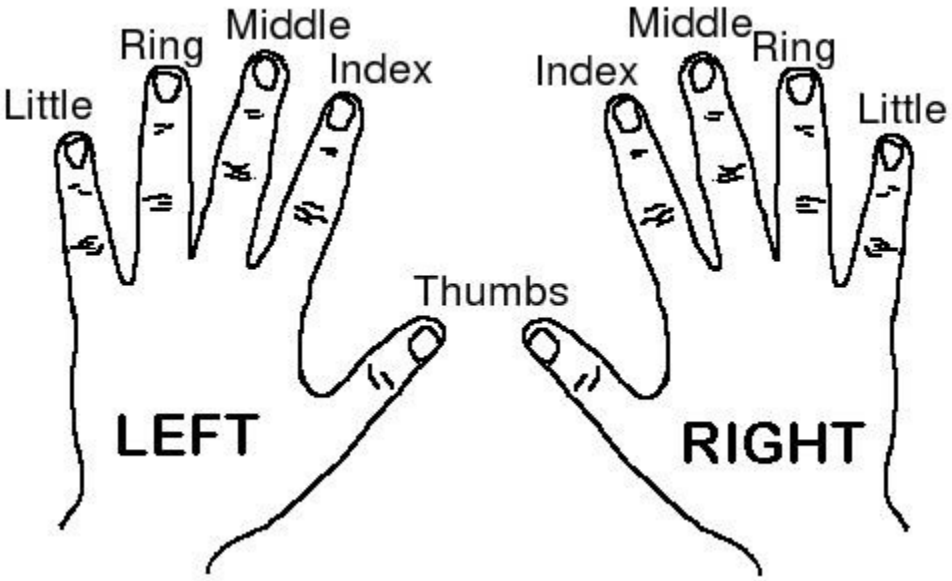


Figure a

Now once the posture is correct and through with the name of the fingers, concentrate on the keyboard keys. The **home row** of the keyboard is the most important to the typist. The row of keys A, S, D, F, J, K, L, ; on the keyboard is called the home row. The fingers are positioned, lightly, on the A, S,D,F keys for the **left hand**, and the J, K, L, ; keys for the **right hand.**

Figure b

- The left index finger will control the F keys, the right index finger will control the J keys.
- The left middle finger will control the D key, the right middle finger will control the K key.

- The left ring finger will control the,S key, the right ring finger will control the L key.
- The left little finger will control the,A key, the right little finger will control the ; key.
- The spacebar is controlled by the right or the left thumb.

Figure c

The G and H keys which are also there in between the F and J keys, are controlled by the index fingers.

- The left index finger will control both F and G keys.
- The right index finger will control both J and H keys.

Figure d

There are many applications which help us to improve our typing skills. In Edubuntu, the falling letters game can be used to get familiar with the position of different keys on the keyboard. Select Applications from the task bar. Under the ' Games' option, select “Educational suite gcompris” as shown in figure e.

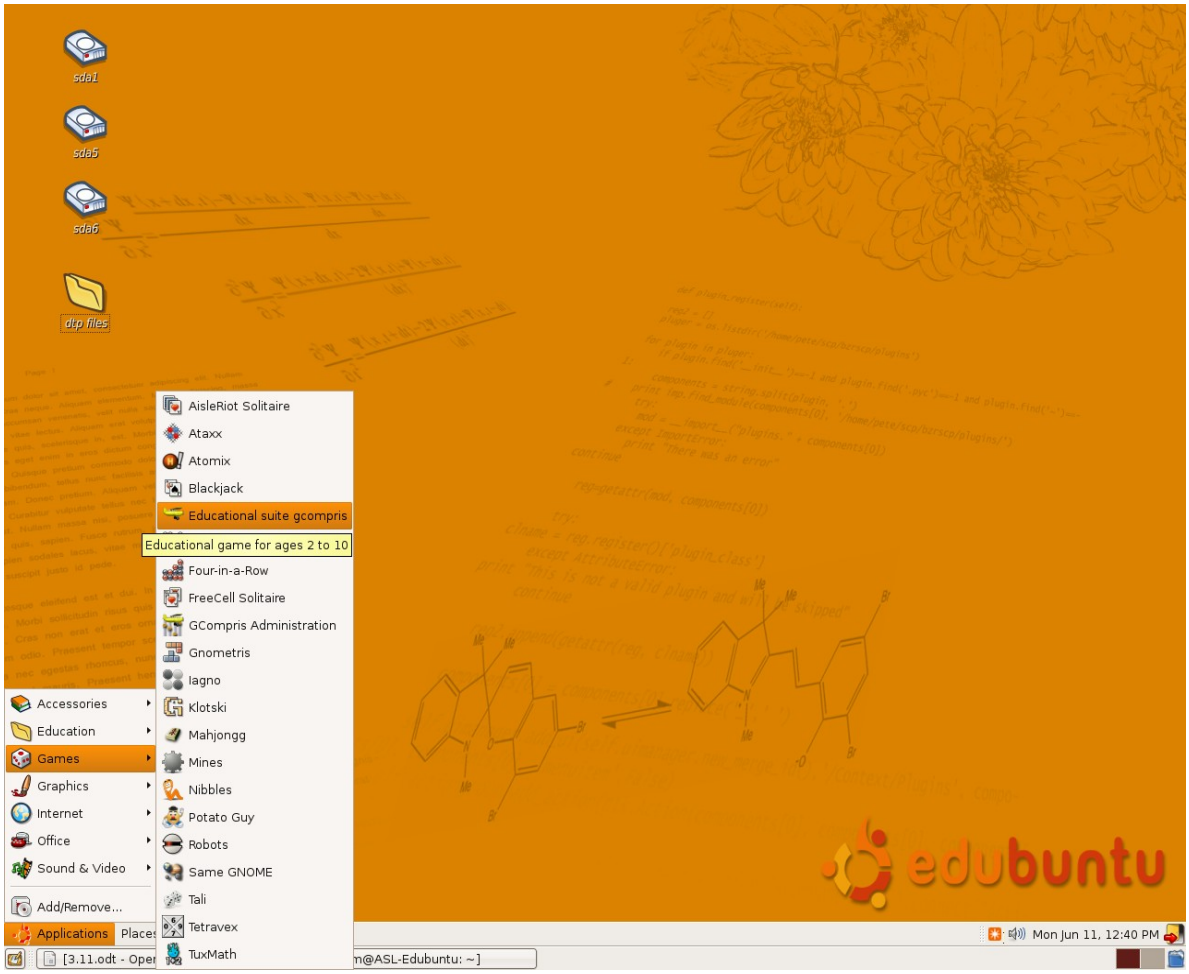


Figure e

From the 'Discover the Computer' option, select peripherals. From there you can select the falling letter game. See figure f.

Figure f

In this game the characters are falling down the screen; you have to stop them before they reach the ground by pressing the corresponding key on the keyboard. The score will be displayed at the bottom right hand corner of the screen. Please see figure g.

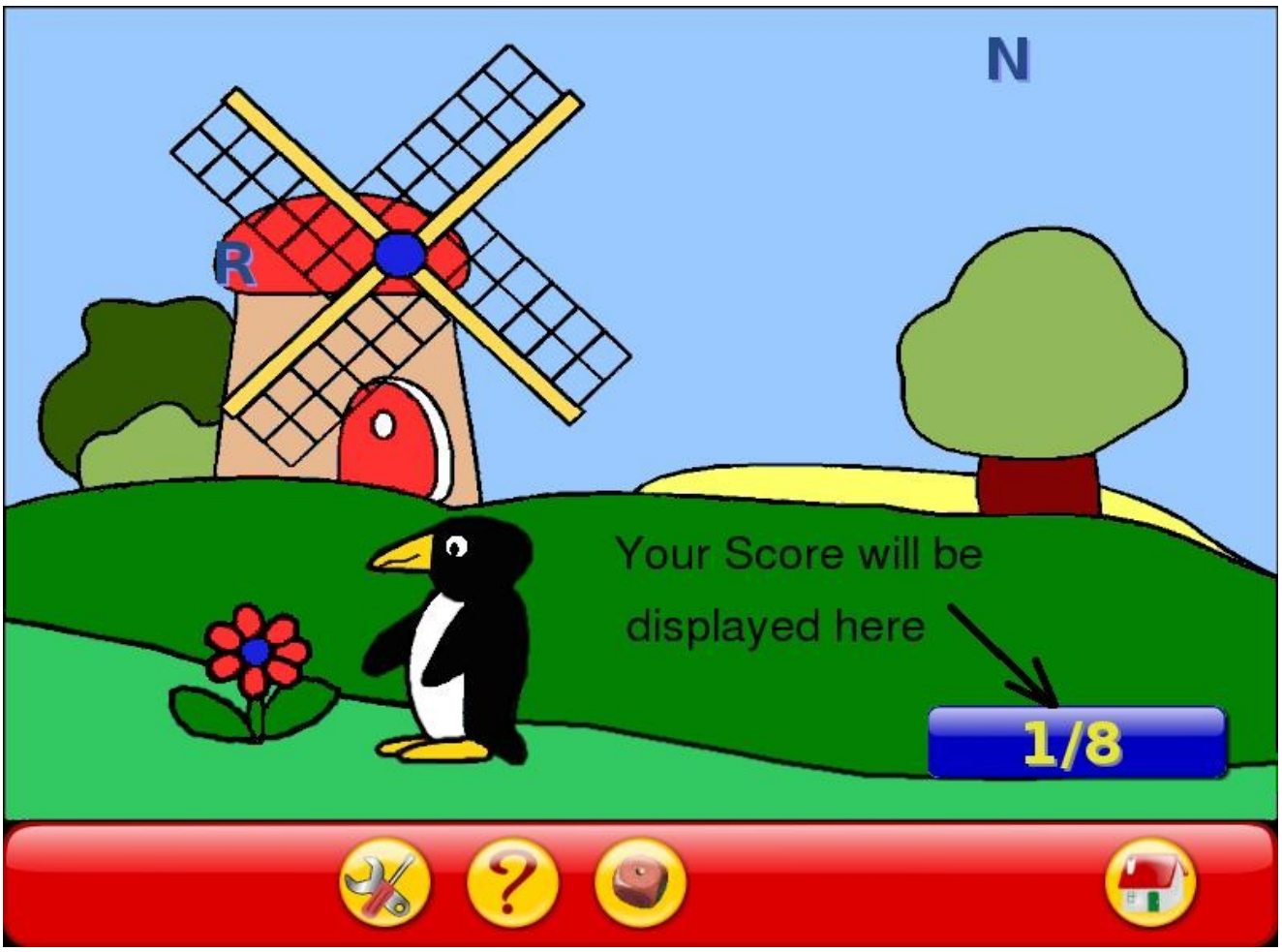


Figure g

Ask the students to practice until they reach a perfect score. If time permits, other games like falling words can also be explored.

Lesson Plan

1. Start off the class asking the students the different tasks we can do with the help of a computer. List them out.
2. Tell the students the importance of typing skills. Lot of people who use a computer are not proficient in typing. They take much longer to complete the same task than a person who is proficient in typing. They spend a lot of time just searching for the right key!
3. Now show the keyboard and show them the home row keys.
4. Position your hands over these keys and start typing. Do this exercise over and over

again tills the children are familiar with the home row keys.

5. Now allow the kids to practice.

Activities

In Lab:

1. Type the letters f and j as shown below using the correct fingers.

ffffffffjjjjjjjj

2. Now position the fingers correctly on the home row keys and type the following.

fdsajkl;fdsajkl;

3. Now include the space bar also while you type.

a as ask asks all

ask dad; ask dad;

4. Now finally include G and H keys also.

a;sldkfjgh

fdsafgf jkl;jhj

dash dash dash dash

dad had a glad lad

a flash lass had a glass

all fall hall all fall hall

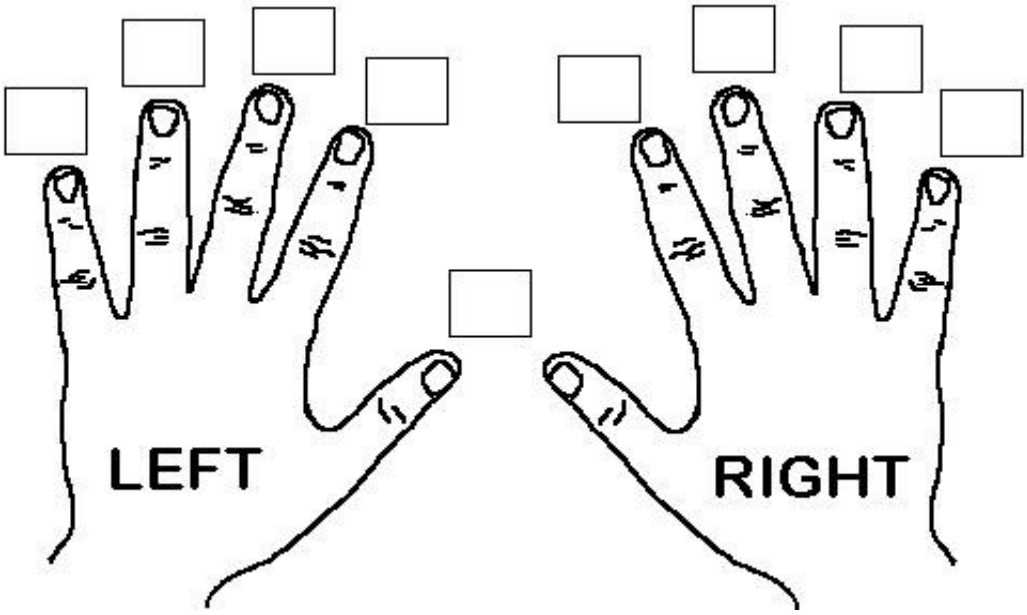
5. Make as many three letter words as possible with the letters on the home row (a, s, d, f, j, k, l, g, h). For example: sad, sag, etc. Type them using the correct fingers.

Practice this as much as possible.

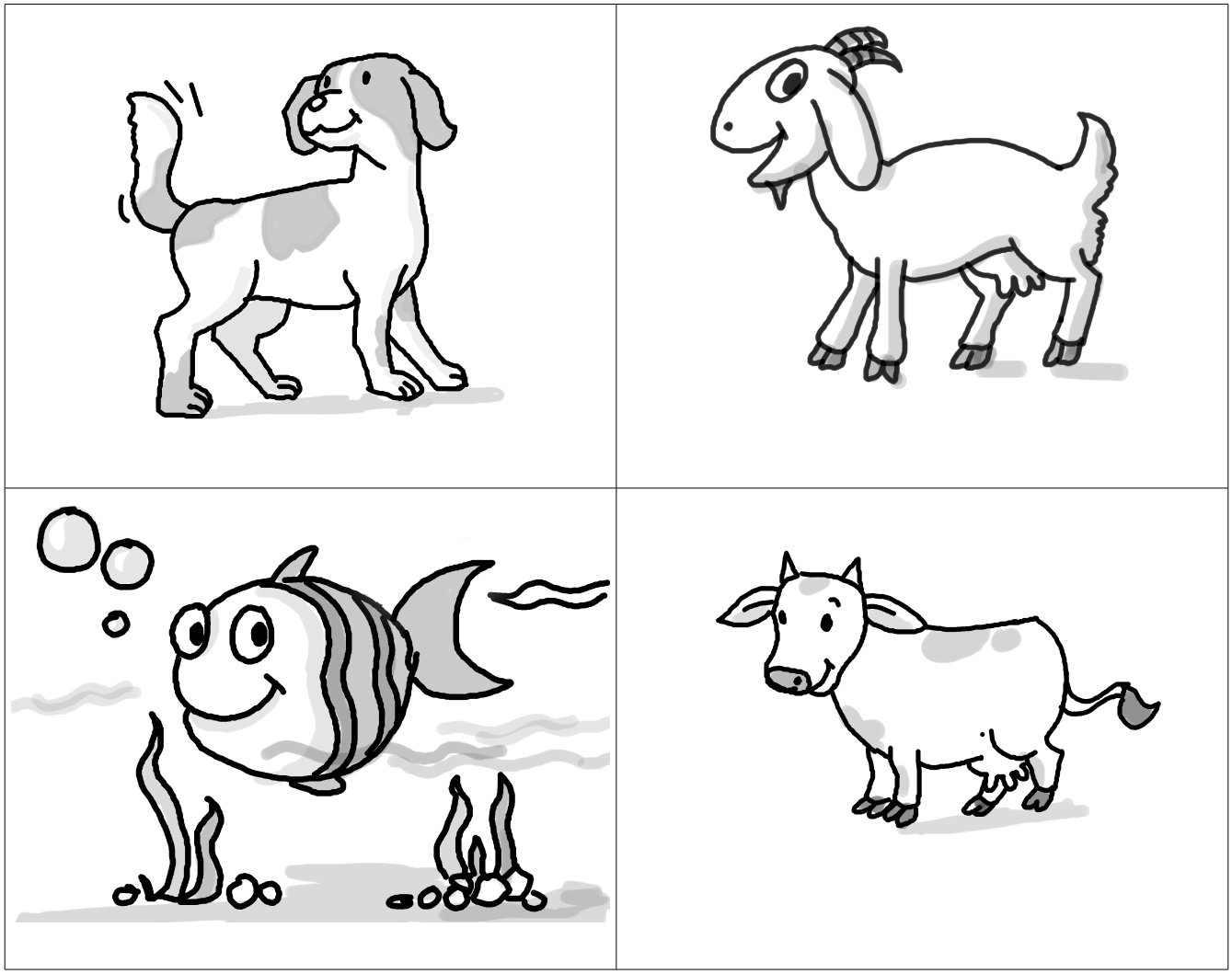
Work Sheets

1. In the Home row keys some letters are missing, fill them.

2. In the following figure, **write the letters** of the home row in the boxes near its controlling finger.



3. The figures of some animals are given. Name them and figure out the which animal's name start with the letters on the home row.



4. Make as many words as possible using the following alphabets

a s d f g h j k l

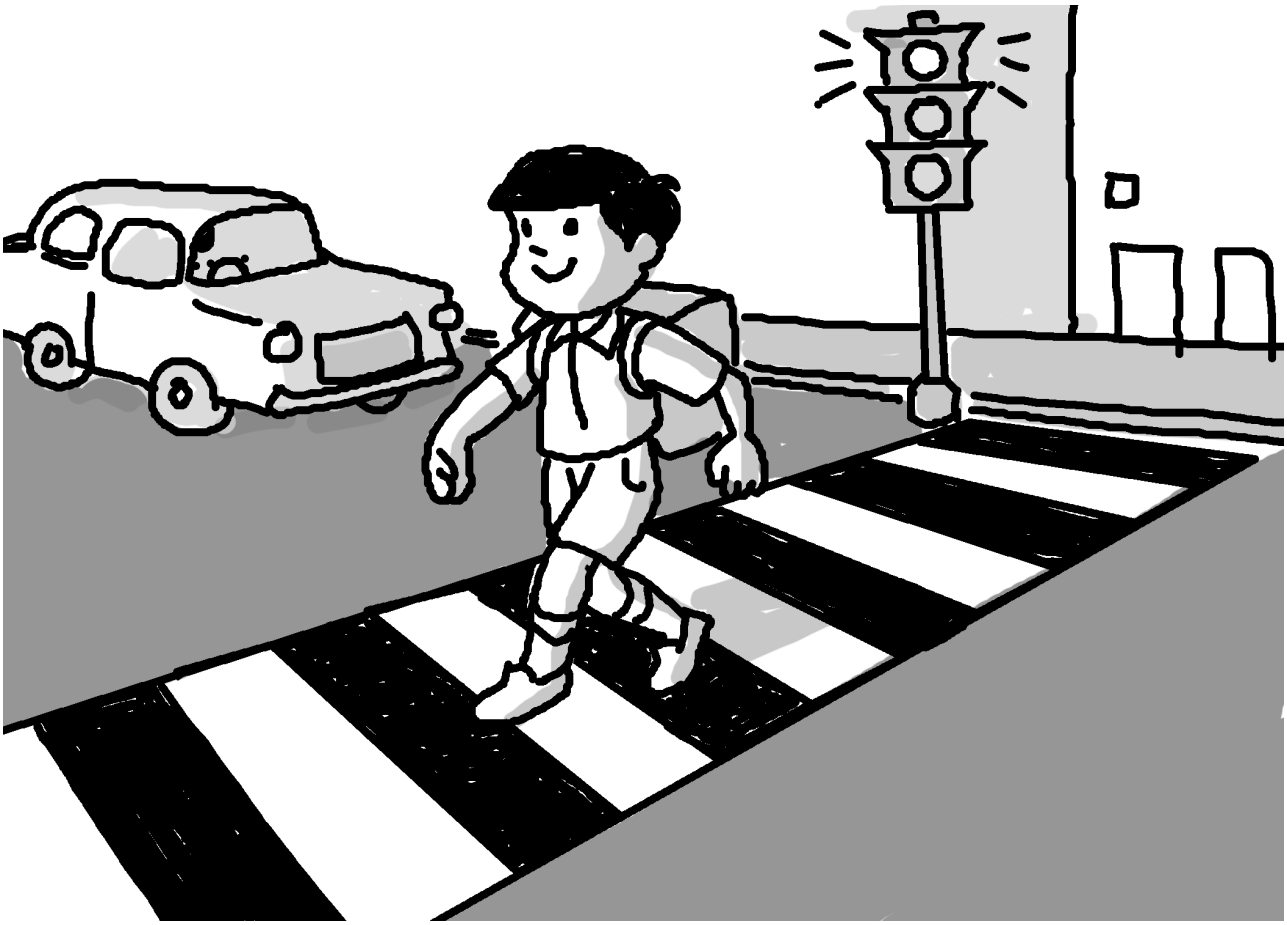
Title:	**Development of logical thinking, such as: Using the Gcompris suite of games.**		
Date :	May 2007	**REF No:**	3.12
Contributors:	Farida	**Std:**	3
		Reviewers:	Malati
Brief Description:	Skills in logical thinking serve as foundation for effective computer use. It is an important requirement for not just computer professional but also several jobs and daily activities. Computer games can be an effective mechanism in training students in logical thinking		
Goal:	To nurture logical thinking skills		
Pre-requisites:	Familiarity with mouse and key board operations, running an application.		
Duration:	3 classes of half an hour each		
Resources:	http://www.indiaparenting.com/stories/panchatantra/panch010.shtml http://www.greeneclipsesoftware.com/eclipsecrossword/ http://www.aimsedu.org/Puzzle/fencingNum/fence1.html http://wwwcsi.unian.it/educa/problemsolving/stice_ps.html www.micsymposium.org/mics_2004/Sinapova.pdf http://www.edhelper.com/logic/ http://www.det.wa.edu.au/education/gifttal/activities/ideas.htm		

Detailed Description:

Logical thinking is an important requirement for effective computer use. Elementary school children can be trained in these skills through everyday examples, stories, computer games and solving puzzles. This lesson suggests some exercises including computer games that are available in Edubuntu operating system and puzzles that can be solved in the classroom. These exercises will serve to provide the students with training in logical thinking.

Lesson Plan:

1. You can start the class by citing everyday examples where in children use logical thinking in every day life. For instance, you may ask the students, why they do not cross the road when vehicles are moving. You can elaborate that while crossing the road, they reason out that they should not cross the road when the green signal is on as the vehicles are passing and they may be hit if they are not careful. They wait for the signal to be red, so that the vehicles stop and they cross the road safely.



2. You may ask several 'WHY' questions. Some of theses are:

   a) Why are vegetables washed before cooking?
   b) Why do you go to doctor when you are not well?

c) Why do you not put your finger in the flame of a burning candle
d) Why should you exercise every day?
e) Why should you learn good manners?
f) Why should you help others?

3. You may narrate a story to the students that highlights logical thinking. For instance, Panchatantra stories can be a good idea. Following is one such story:

Unity is Strength

Once upon a time, there was a flock of doves that flew in search of food led by their king. One day, they had flown a long distance and were very tired. The dove king encouraged them to fly a little further. The smallest dove picked up speed and found some rice scattered underneath a banyan tree. So all the doves landed and began to eat.

Suddenly a net fell over them and they were all trapped. They saw a hunter approaching carrying a huge club. The doves desperately fluttered their wings trying to get out, but to no avail.

The king had an idea. He advised all the doves to fly up together carrying the net with them. He said that there was **strength in unity.**

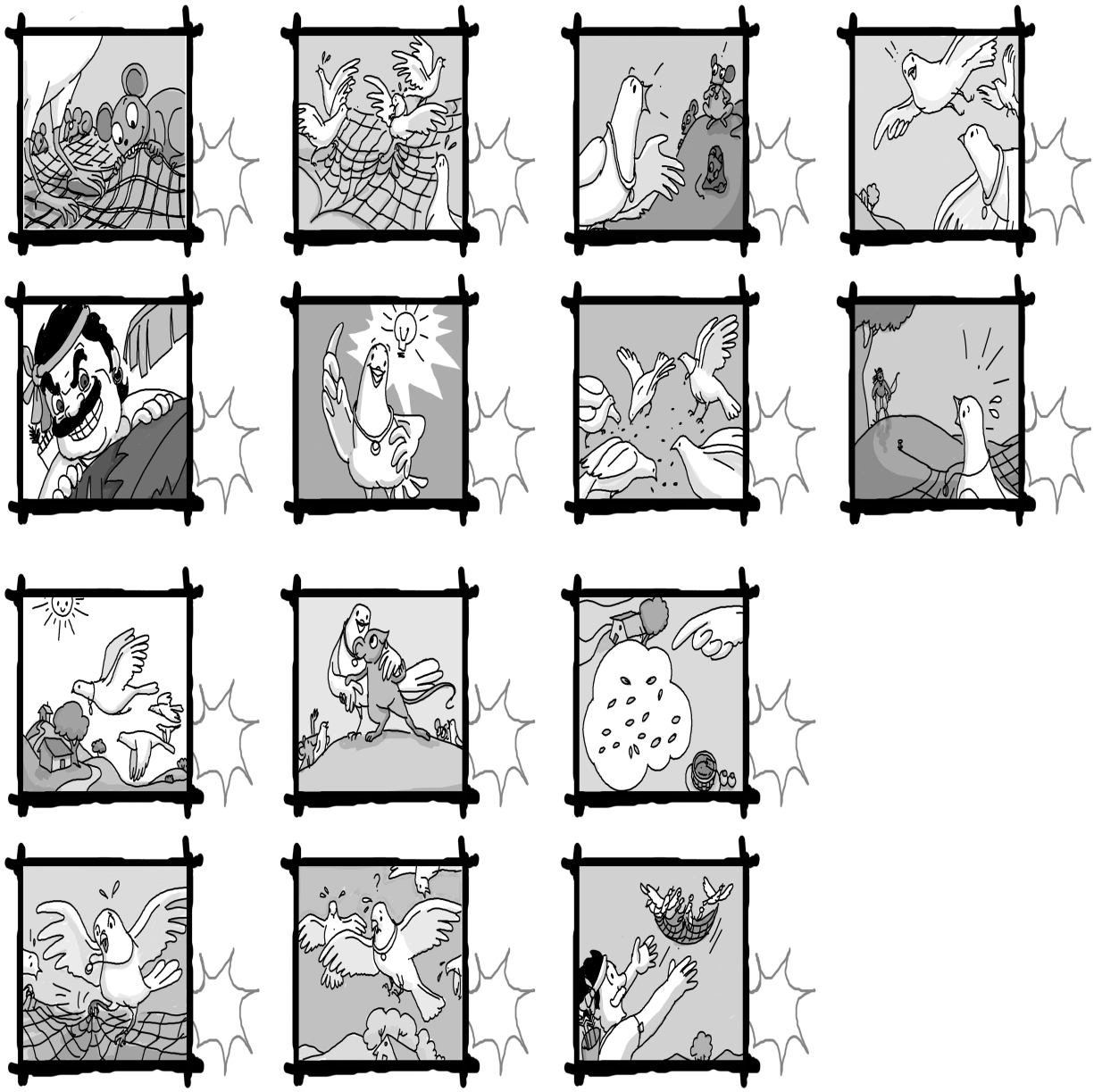
Each dove picked up a portion of the net and together they flew off carrying the net with them. The hunter looked up in astonishment. He tried to follow them, but they were flying high over hills and valleys. They flew to a hill near a city of temples where there lived a mouse who could help them. He was a faithful friend of the dove king.

When the mouse heard the loud noise of their approach, he went into hiding. The dove king gently called out to him and then the mouse was happy to see him. The dove king explained that they had been caught in a trap and needed the mouse's help to gnaw at the net with his teeth and set them free.

The mouse agreed saying that he would set the king free first. The king insisted that he first free his subjects and the king last. The mouse understood the king's feelings and compled with his wishes. He began to cut the net and one by one all the doves were freed including the dove king.

They all thanked the mouse and flew away together, united in their strength.

Now the story is told, ask the class to arrange the following set of pictures in correct order.



4. In the classroom, some puzzles may be given as exercises for logical thinking. For example,

Rahul, Seema and Priya are collectors. One collects stamps, one collects insect pictures and one collects toy car pictures. Rahul swapped his car pictures for insect pictures. Seema doesn't like cars but likes getting letters. Priya thinks insects are too small to worry about.

What do Rahul, Seema and Priya collect?

Answer: Rahul collects insect pictures, Seema collects stamps, and Priya collects car pictures.

5. The teacher may use the technique called, ‘Think Aloud Pairs Problem Solving (TAPPS)’ while solving the problem. Following are the steps for this:

a. Class is divided into a number of teams, each team consisting of two students, one student being the Problem Solver (PS) and the other being the Listener (L). Each has a role to play & adhere to some rules.

b. PS reads the problem aloud and then continues to talk aloud as much as possible about everything s/he thinking while attempting to solve the problem. L listens, and has the more difficult role. L must try to keep PS talking; a short silence should be met with, "Tell me what you are thinking."

c. L must understand in detail every step made by PS. Thus L should ask questions whenever PS says anything that is in the least mysterious. "Why do you say that?" "Would you explain that to me?"

d. L must avoid solving the problem herself, and must not ask questions that are actually intended as hints to PS. In fact, it isn't necessary that L should be able to solve the problem; her role is to help PS solve it.

e. The teacher's role in early classes should be restricted to rule enforcement.

Lab Session

1. In the edubuntu operating system, there are several games in the **Educational suite Gcompris** that provide an interesting platform for logical thinking. The steps to start this application are as follows:

i. Go to applications in the left bottom.

ii. Click on Games

iii. Select Educational suite gcompris. Figure a illustrates this

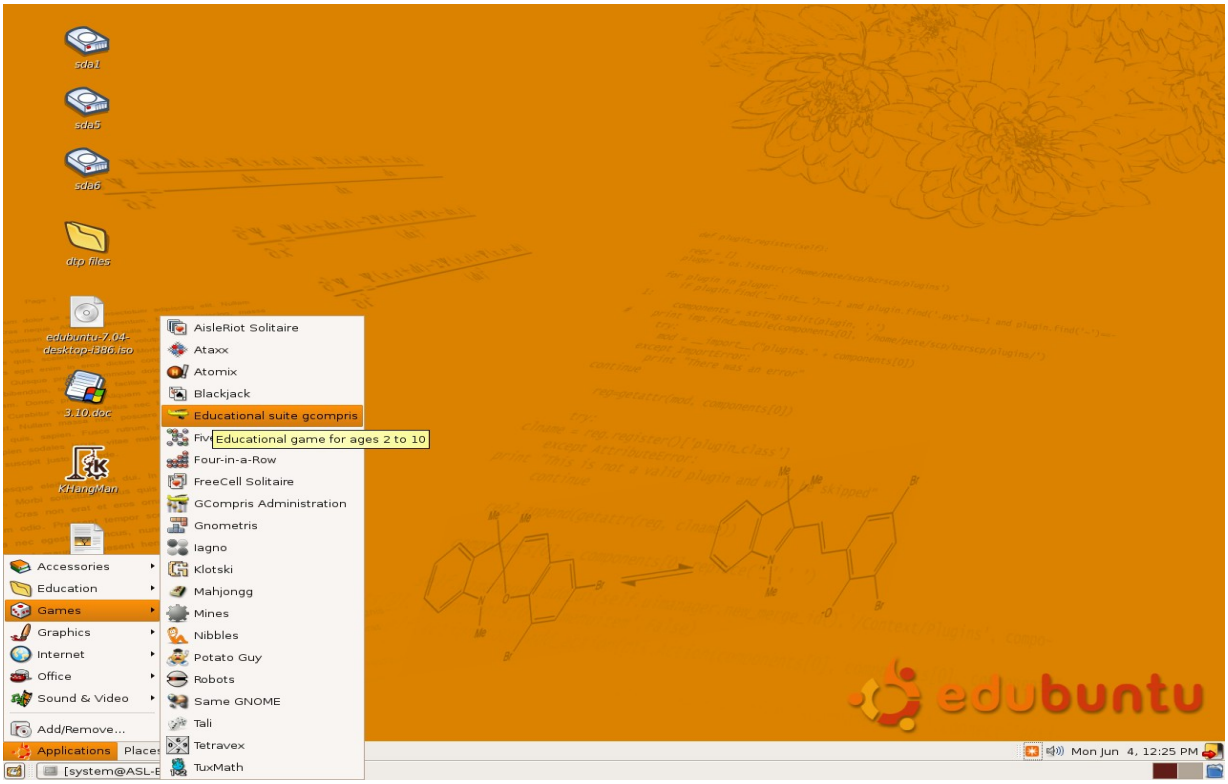


Figure a

2. Within the educational suite gcompris, you may explore “go to discovery activities” and later “puzzles”. There are several activities within each of them. Figure b illustrates the screen shot of the activities that you will see in the discovery activities.

Figure b

3. Within each of them there are several games. For instance, if you click on miscellaneous activities, you will see the following games. For instance, the games where students have to identify the pattern in the symbols give an insight of how algorithm works. These games will not be enjoyed by students but will also allow for symbolic thinking, thus training them in mental capacities.

Figure c

4. Explain them the steps they need to follow to start the application. After the theoretical understanding is developed, take the students to the computer lab and demonstrate how to start the Educational suite gcompris set of games for logical thinking. As the students would be sharing the PC, you can give different kinds of games to the different groups. After you have given a demonstration, let the students play. Allow the students to play the games for the next two or three classes so that each student gets to play these games for at least 10 minutes each.

Worksheet

1. You must help a farmer get a fox, a chicken, and a bag of corn safely across a river in a boat. The farmer may only take one thing at a time in the boat. He cannot leave the fox and the chicken together on either side of the river, or the fox will eat the chicken. Likewise, she cannot leave the chicken alone with the bag of corn or the chicken will eat the corn. How can the farmer get everything across the river without anything being eaten?

2. A dentist and a painter are standing in line to go to a movie. One of them is the father of the other one's son. How is this possible?

3. Neel's family consists of Suhas, Mani, Gita, and Reena. They are Neel's mother, father, younger brother, and younger sister. Name which person is the mother, father, younger brother, and younger sister.

- Suhas has no brothers.

- Suhas likes to jog. He jogs every morning.

- Mani is not Neel's mother. She is also not Neel's father.

- Gita is not Neel's younger brother.

4. Mani, Kiran, Jaspreet, and Kavita each own a car toy. One has a violet car, one has a yellow car, one has a blue car, and one has a black car. Figure out the colour of each person's car.

- Jaspreet favourite colours are black and violet. Her car is one of her favourite colours.

- Jaspreet borrowed the yellow car, because Kavita was using her car.

- Mani borrowed the blue car, because Mani was using her car.

- Kiran favorite colors are blue and yellow. Her car is one of her favourite colours.

- Kavita doesn't like yellow and black cars.

- Jaspreet borrowed the black car, because Jaspreet was using her car.

- Mani doesn't like yellow cars.

5. Amina, Sarah, and Jeet each ate something different for breakfast. One had toast, one had chapatti, and one had a apple for breakfast. What did each person have for breakfast?

- Amina likes to eat either an apple or toast for breakfast.
- Only Sarah and Jeet like chapati for breakfast.
- Jeet did not have chapatti or toast for breakfast.

6. Complete the following series:

a) 9, 10, 12, 15,?

19	17	25	20

b) 1, 2, 4, 7,?

10	11	5	12

c) 10, 9, 7, 4, ?

8	1	2	0

d) 12, 8, 5, 3, ?

2	10	1	7

7. Write 20 ways of using a shoe.

8. Make a list of all the different ways you could use a ball.

Title:	**Reasoning in general terms**		
Date:	May 2007	**REF No:**	3.13
Contributors:	Aruna Prabahala	**Std:**	3
		Reviewers:	Farida
Brief Description:	Reasoning is the most important aspect of computer programming. In primary classes, a foundation can be laid for nurturing the reasoning skills. Developing these mental capacities is an ongoing process and reinforces the confidence in one's capacities for writing simple programs. This lesson provides an exposure to the general steps of reasoning with simple life events.		
Goal:	This lesson develops the awareness of reasoning and structured thinking that will enable anyone to understand and write a simple program. The understanding of cause and effect is the basis to generate a simple algorithm that can stem into a program. Reasoning is this section is illustrated by common everyday scenarios. Students should be able to understand the simple concepts of step-by-step thinking which is the basis for algorithms and programming. They need to be aware that good reasoning can lead into developing good programming skills.		
Pre-requisites:	Computer awareness.		
Duration:	2 Sessions		
Resources:			

Detailed Description:

Have you ever thought what language computer understands? Just as you can talk to your friend, you can also communicate with the computer. However, it does not recognize the language you use for day-to-day communication. In order to make the computer do what you want it to do, you have to give commands in a particular language. Writing computer programs will enable you to do this. Reasoning the steps for any activity or program is very important to write good computer programs. In order to learn this, you need develop particular

mental capacities. Hence, this lesson seeks to nurture reasoning capacities.

To learn to write programs lets understand steps of reasoning with some examples in your day-to-day activities.

Let's see in an order, what does your mother (or anyone in the house) does to cook a vegetable dish.

1. She may ask you what you like to eat, or she may pick something that is healthy for the day. Let's say she picked Potatoes for the day.
2. Then she peels and cuts the potatoes and keeps them aside.
3. Then lights a stove on puts a cooking pan on the stove.
4. Then she pours some oil in the pan and adds some seasoning. You might hear popping sounds!
5. Then she adds the potatoes, stirs them, adds salt and chilli and covers it with a plate.
6. After sometime she turns the vegetable around with a spoon again so it cooks evenly.
7. Finally once the vegetable cooks, she severs it with rice or chapatti and you enjoy eating it.

So you see from deciding what she needs to cook for the day to eating the vegetable there are a sequence of steps. What will happen if the steps are not followed correctly?

If it is not followed something will go wrong. For example if she turned on the stove without cutting the vegetable, the gas gets wasted. If she forgets to add the salt or the seasoning, then the vegetable will not taste good. If she puts the vegetable without the oil, it will stick to the pan.

For every activity, there is a sequence and order than needs to be planned and followed. It is the same for writing computer programs also.

Now let's study another example of going to a shop and buying a book.

1)You may know what kind of book you want.
2)Then you ask someone in your house to take you to the bookshop.

3)You go the bookshop with a family member.
4)Then you ask the bookshop salesperson to show you books on the topic of your interest.
5)You go through the books and make a choice.
6)Your family member will make the payment to the salesperson and purchase the book.
7)You come back home and can now enjoy reading the book!

Again here we learnt that the activity is carried out in a planned way and in a particular order. For example you cannot buy the book, until you ask someone in the house to take you the shop. Thus, one step leads to the other step**,** in other words**, one step is dependent on the previous step.**

Now let us study another example of your day-to-day activity. Let's see what you do everyday in the morning, before going to school.

d)You get up with a smile, see everyone in the house, and first brush your teeth.
e)You drink some milk.
f)You take bath and get ready with your uniforms.
g)You make sure all your books are in your bag.
h)You eat breakfast and talk with your family members.
i)You wear your shoes say bye to everyone and go to your school!

Now in this case, you can change the sequence. For example you can brush and finish your bath before drinking milk and breakfast. We can also put books in an order first and then eat the breakfast. It all depends on what is convenient for you. It is important is the understanding that **for everything we do in our day to day life there is a method, sequence, order and dependability.**

Computers can be made to think and act like the way we think and act by **programs.** In the following weeks we will learn more about how to write simple programs and how a programming language works. As you grow up and advance to higher classes, you will learn more and more on the concepts of programming and programs. For now, we will take the help of some real life activities to relate to the way computer programs work.

Lesson Plan

1. This module can be conducted in the classroom or if possible take the students to

the playground. This will raise the energy levels in the students. You can play a game with them, say dog and the bone. Then gather them together and ask them what are the steps they followed as they played the game. Once you have got the concept of identifying sequences, and then introduce what programs mean. You may take them to the classroom and continue the module in the next class.

2. Arouse their interest by asking questions like “Can you talk to the computer as you talk with your friend? Have you ever thought what language computer understands?” Explain that the computer does not recognize the language you use in day-to-day communication. In order to make the computer do what you want it to do, you have to give commands in a particular language. Computers can be made to think and act by programs. Writing computer programs will enable you to do this. Identifying the steps for any activity is very important to write good computer programs. In order to learn this, you need polish your mental capacities of reasoning.

3. You can give more examples. For instance, next week is Raja’s birthday. Plan a birthday party for him. What things are required? Arrange them in proper sequence so that your party turn out to be well organized.

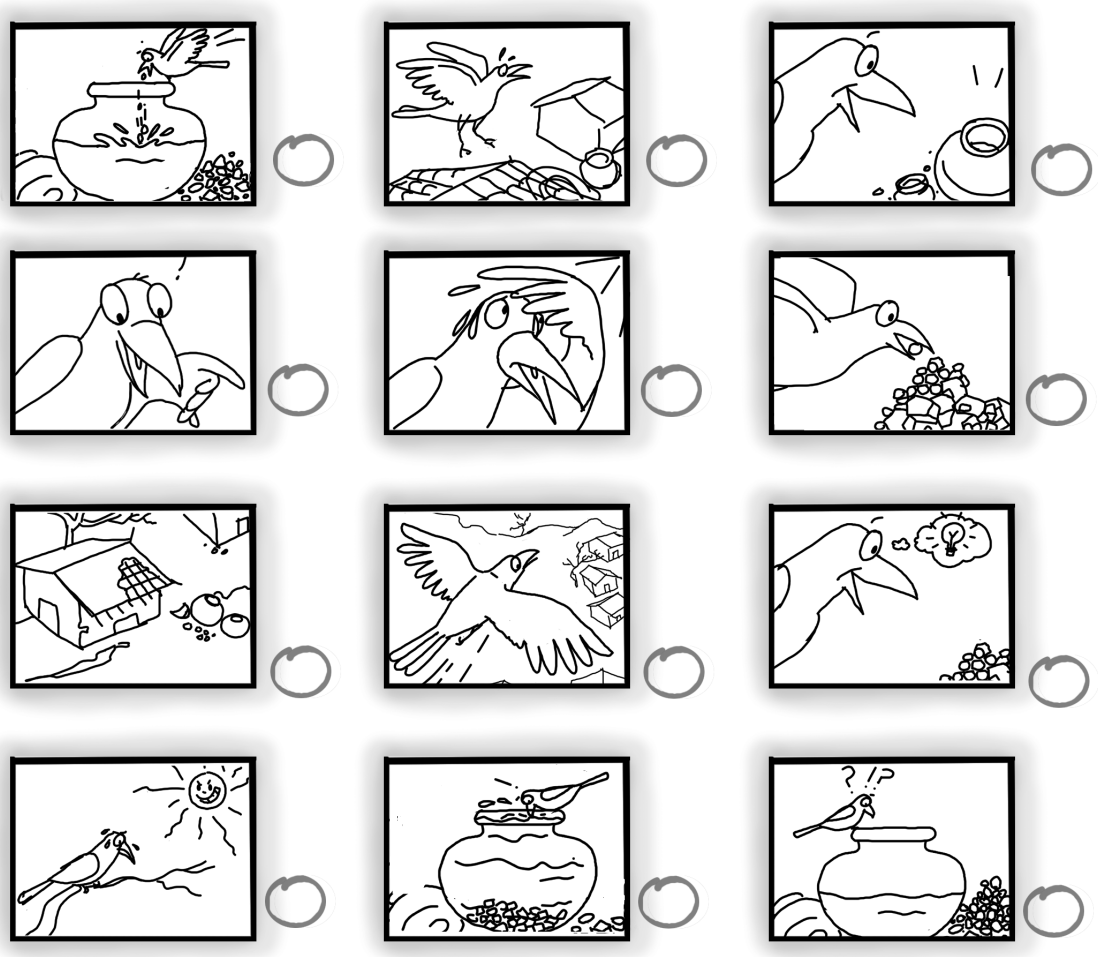
4. Divide class in 2 groups, have one group explain an activity and the other group specify the steps of the activity.

5. Give them an assignment of making a daily timetable, so that they divide their time in school, study, play, sleep, eating, etc. In the next class, divide into group of two/ three students and ask them to discuss their respective plans amongst each other. Ask the students to follow the timetable. In the next class, they can exchange their experiences and make changes if required in their schedule. You can question them on whether they can or cannot change the sequence of activity.

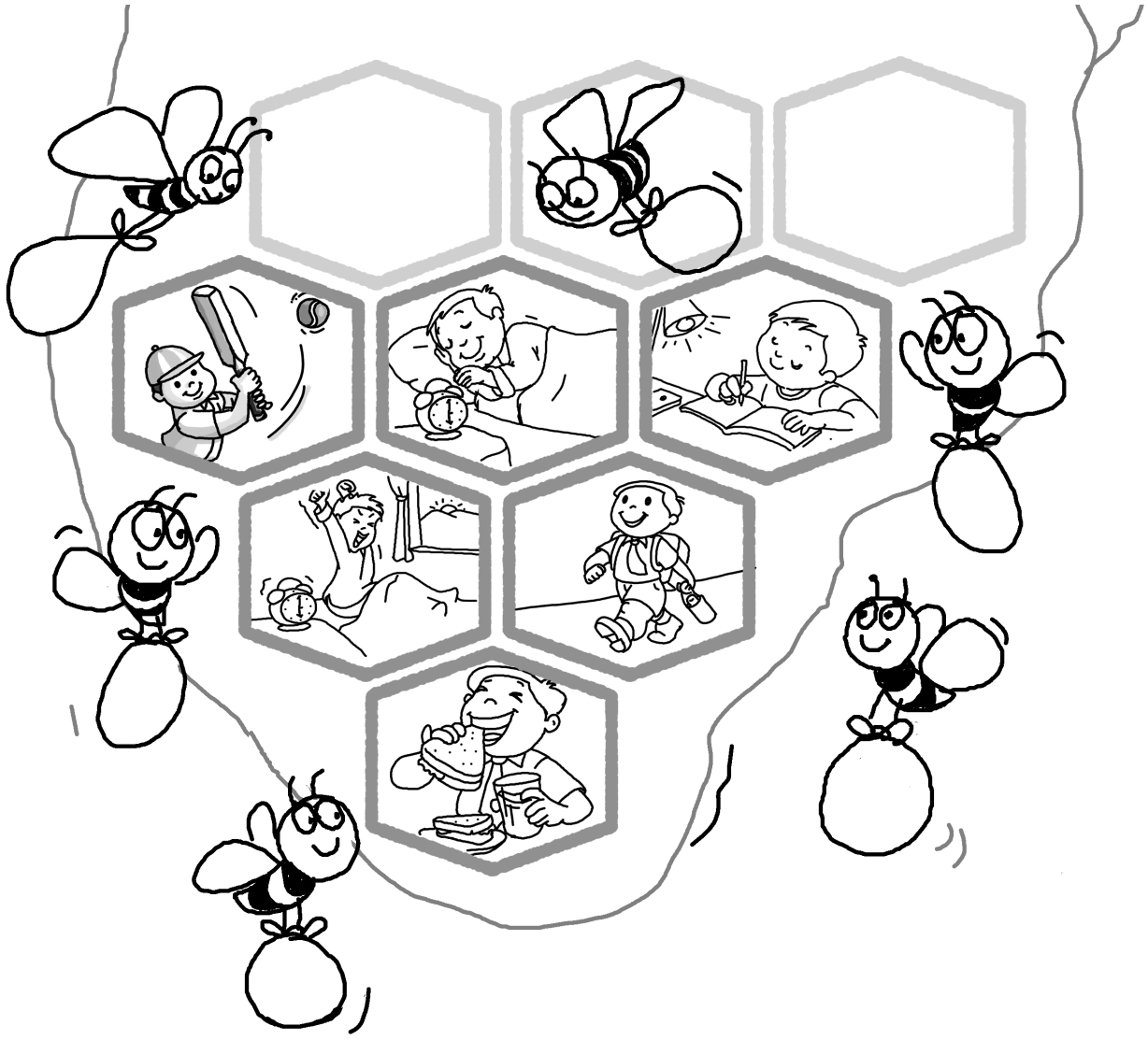
Work Sheet

1. Number the pictures in the proper sequence.

2.



3.



Title:	**From step-wise reasoning to simple programming. Such as: Detailing out the steps involved in any activity.**		
Date :	May 2007	**REF No:**	3.17
Contributors:	Aruna, Farida	**Std:**	3
		Reviewers:	Malati
Brief Description:	In earlier classes, the students were taught to identify sequences in every day activities. Here we will learn how we can arrange the sequences in picture. Students will be taught to reason the steps involved in daily life activity, arrange them in sequences and draw the steps in a chart.		
Goal:	Develop reasoning mental capacities so that a strong foundation is laid for teaching basic programming skills		
Pre-requisites:	Familiarity with computers. Average competency in logical and reasoning skills that are covered in earlier modules.		
Duration:	3 classes of 30 minutes each		
Resources:			

Detailed Description:

In order to write computer program, it is essential that the students acquire mastery over logical reasoning. Teaching them to identify sequences in daily life activities and drawing a flow chart will lay a foundation for reasoning skills. This can be later applied to teaching them to write programs.

Any daily life activity involves a sequence of activities. For instance, if you have to make tea, what are the steps you need to follow?

- You start with first collecting all the ingredients ---- water, milk, tea leaves, sugar, a teapot.
- Second, you light the gas and place the teapot on the flame.
- You pour water into it, add sugar, tealeaves and lastly milk.
- You stir and check if the tea is ready.
- f yes, then you turn the gas knob and pour the teas in a cup.
- If it is not, then you let it boil for some more time.

These steps can be shown in a flow as follows:

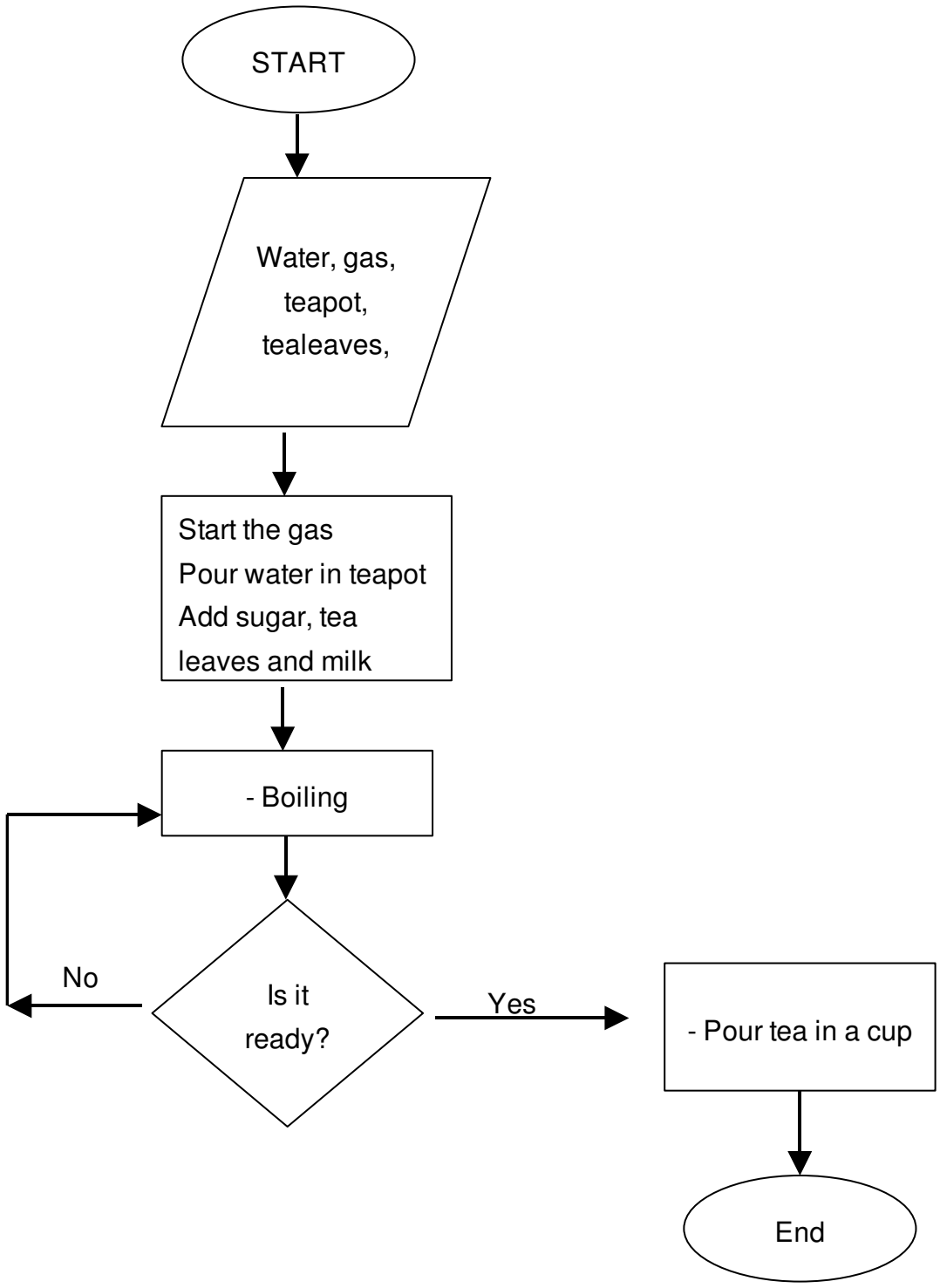


Figure a: Flow of Steps that Show Making of Tea

Notice that boxes of different shapes are used in these pictures.

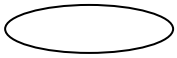
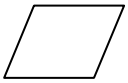
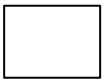
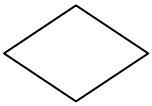
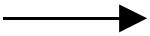
	Start and End
	What is required in order to complete the task? These could include material, instruments and data
	Activity
	Decision point
	Arrows that show how the different steps are connected.

Figure b: Shapes used to Show the Different Steps

Suppose, if someone is hanging clothes to dry, what are the steps involved?

These are listed as follows:

1. Pick up one cloth
2. Hang on the String
3. Put on a clip.
4. Pick up another cloth
5. Hang on the string
6. Put on a clip

And so on ….

1. …Pick up last cloth
2. Hang on the string
3. Put on the clip

Notice the following three actions are repeating for all clothes:

- Pick up one cloth
- Hang on the String
- Put on a clip.

If you have dry 25 pieces of cloth, than you will repeat these three steps 25 times.

Lesson Plan

1. Revise the concept of stepwise reasoning covered in the earlier lesson. You may ask the students to give some more examples. For instance, you can ask if they want to improve their grades in the next examination, what are the steps they will follow in order to achieve this goal.
2. Tell the students that in this lesson they will learn how to draw a chart that lists the steps involved in completing a task. You can use the example of making tea described earlier in Figure a or use another example or give another example. For instance, pose the following problem to the child:

   You friend Mohit has come home when your mother has gone to the market. You want to serve your friend lemon juice. Do not forget that Ma always keeps some lemons in the refrigerator! List out the steps you will follow to make the drink.

   First make a list of what all the material is required for doing this activity. They may say, lemon, sugar, salt, water, glass, spoon and knife. Then ask them to list the steps for making lemon juice. They may list it out as follows: get the lemon, cut it with a knife and squeeze it in a glass. Add sugar and salt and stir with a spoon. After the sugar is dissolved completely, the juice is ready to be served. Now draw a diagram to show these steps. This is illustrated in Figure c.

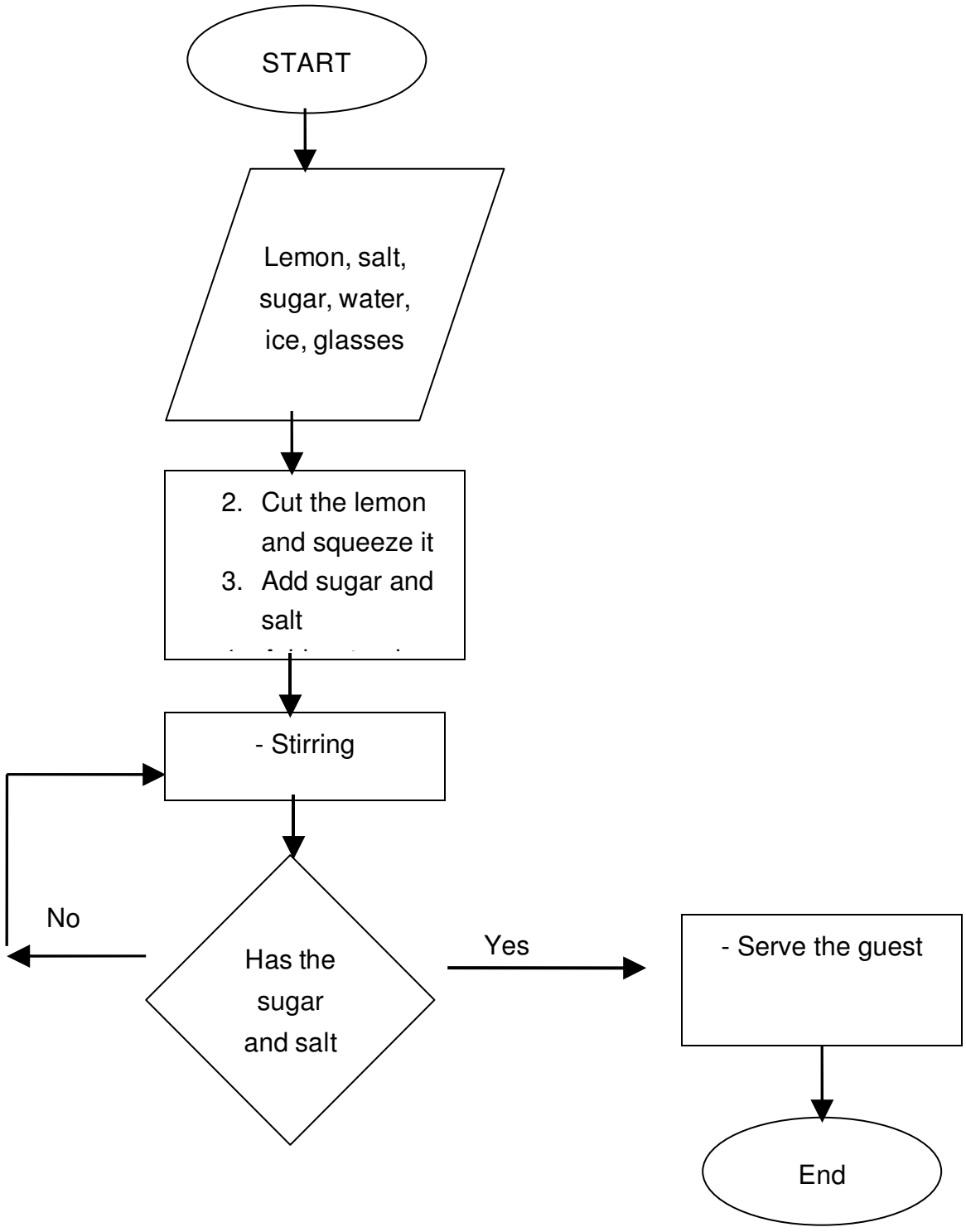


Figure c: Flow of Steps that Show Making of Juice

3. Let the children notice the different shapes of boxes themselves. In this manner, we can train them not only in observational skills but also they will learn to be more analytic rather than mere passive recipients of what is being taught in the class. If they do not question you as to why different shapes are used, you can ask a few questions that will drive their attention in this regard. For instance, “Do you notice that different steps are enclosed in boxes of different shapes?” “What do you think could be the reason for this?”

4. Now you can explain what kind of boxes are used with the help of Figure 2

5. Give more examples and ask the students to reason out the steps involved in the activity. They may then asked to draw the steps using the different kinds of boxes

6. You may divide the class into two groups and ask one group to give a task to the other. The second group lists the steps and the first group draws the flow chart. The role of the two groups can be exchanged and more practice may be provided to the class

Worksheet

1. You have to sharpen your pencil. List the steps you will follow and draw them in a flow.

2. Rajesh has just come from school. He has to eat his lunch, take a short sleep, do his homework and then go to play cricket with his friends. Draw a diagram to show the steps he will follow.

3. Veena has seen her mother purify drinking water by boiling. Today her mother is visiting her grandmother and she finds that there is no water in the bottle and the earthen pot. How will she get purified drinking water?

4. Rita wants to eat and orange. Can you list the steps she will have to follow to eat it.

5. Your friend Sumeet was absent when the teacher taught how to draw a flow chart. Teach him how to draw it with the help of an example.

Title:	**Continue with development of typing skills.Such as: Using Ktouch.**		
Date:	June, 2007	**REF No:**	3.20
Contributers:	Usha Viswanathan	**Std:**	3
		Reviewers:	Farida
Brief Description:	This topic helps the student in developing rudimentary typing skills.		
Goal:	Students will learn how to correctly place their hands on a keyboard and the proper finger movements that improve typing speed and accuracy.		
Pre-requisites:	Familiarity with the keyboard.		
Duration:	2 Session		
References:	www.bbc.co.uk/schools/**typing**/ www.ababasoft.com/**typing**/**typing**_lesson02.html www.nimble**finger**s.com/index_1.html http://www.howdyfolks.net/typing/typingmanual.html		

Detailed Description:

In our last lesson on developing rudimentary typing skills, we learned the locations of the 'Home Row' keys. With these keys itself we were able to type some words without looking at the keyboard.

The 'QWERTY' row or the top row which is the most celebrated on the keyboard is also the hardest working. Four of the five vowels, E-I-O-U are to be found in this row.

Always make sure you are sitting up straight, your feet flat on the floor. Keep your elbows close to your body, your wrists straight and your forearms level. It is also very helpful to *quietly* say the name of the key as you strike it.

The resting position (home keys) is the position for each finger when it is not in use. When any other keys are to be pressed reach out for the respective key, depress the key and

quickly retract back to the resting position.

Just for a recap, the following figure shows the naming terminology for different fingers on the hands.

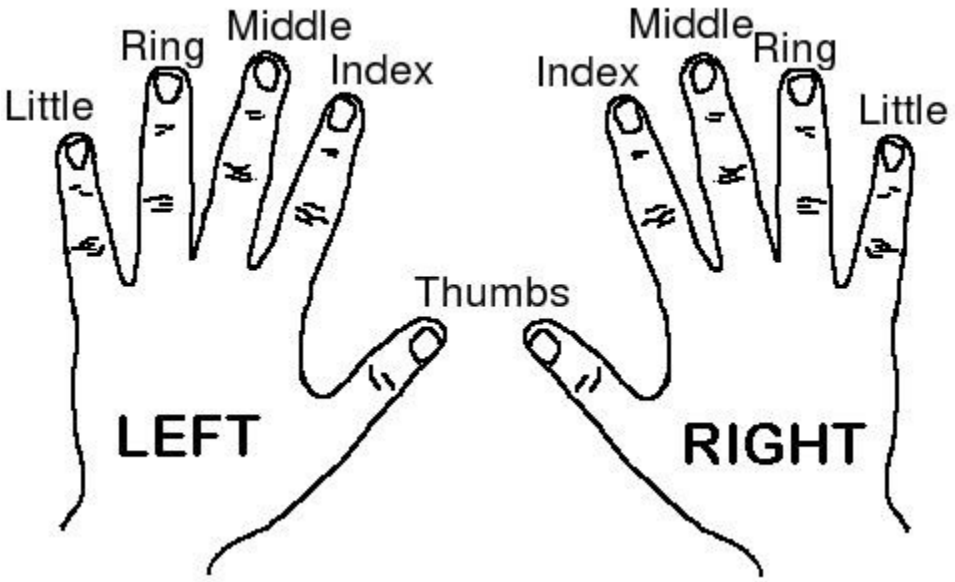


Figure a

Now let us concentrate on the two other rows namely the Top Row and the Bottom Row.

In the Top Row/ QWERTY Row

- The left index finger controls the R and T keys, the right index finger controls the Y and U keys.
- The left middle finger controls the E key, the right middle finger controls the I key.
- The left ring finger controls the W key, the right ring finger controls the O key.
- The left little finger controls the Q key, the right little finger controls the P key.

In the Bottom Row:

- The left index finger controls the V and B keys, and the right index finger controls the N and M keys.
- The left middle finger controls the C key, and the right middle finger controls the ',' key.

- The left ring finger controls the X key, and the right ring finger controls the '.' key.
- The left little finger controls the Z key, and the right little finger controls the '/ ' key.
- The left shift key is controlled by the left little finger and the right shift key is controlled by the right little finger

	LEFT HAND					RIGHT HAND				
Fingers	**LF**	**RF**	**MF**	**IF**	**IF**	**IF**	**IF**	**MF**	**RF**	**LF**
Top Row Keys	Q	W	E	R	T	Y	U	I	O	P
Home Row Keys	A	S	D	F	G	H	J	K	L	;
Bottom Row Keys	Z	X	C	V	B	N	M	,	.	/

LF = little finger, RF = ring finger, MF = middle finger, IF = index finger

There are many online sites and applications which help us to improve our typing skills. In Edubuntu, the 'KTouch' application helps us in this direction. Once we are through with the key positions, we can test our typing skills using the KTouch application.

To open the application, from the Task bar select **Applications -> Ktouch** as shown in figure a.

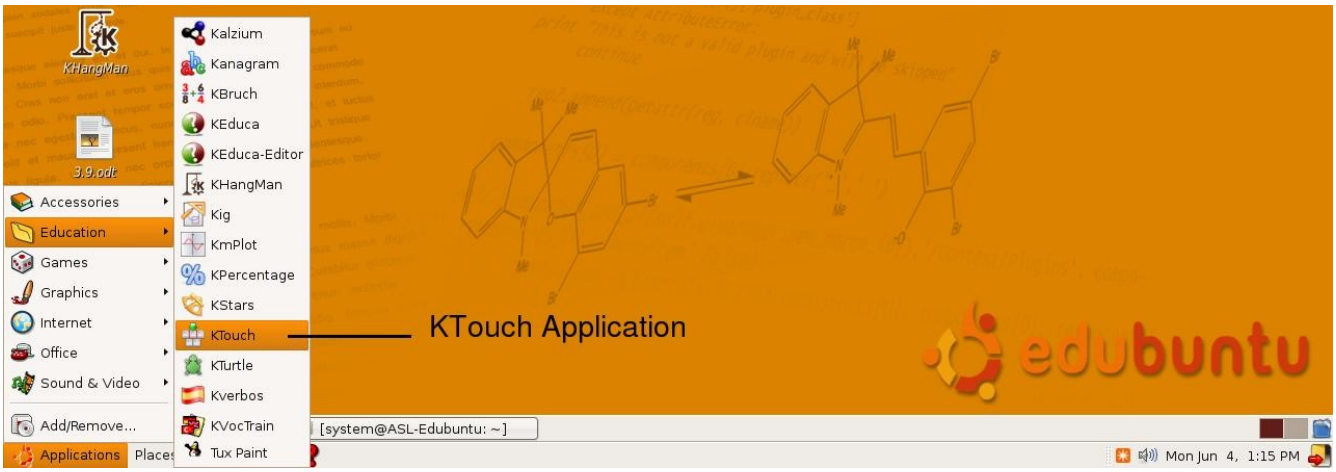


Figure b

This will open up a window as shown in the figure b. It has got all the alphanumeric keys just as on any normal keyboard. These keys are also arranged in the same fashion as on a

keyboard. We can choose the level we want to start, for example Level 1 is the beginner level. A list of letters/ words are given just above the key layout.

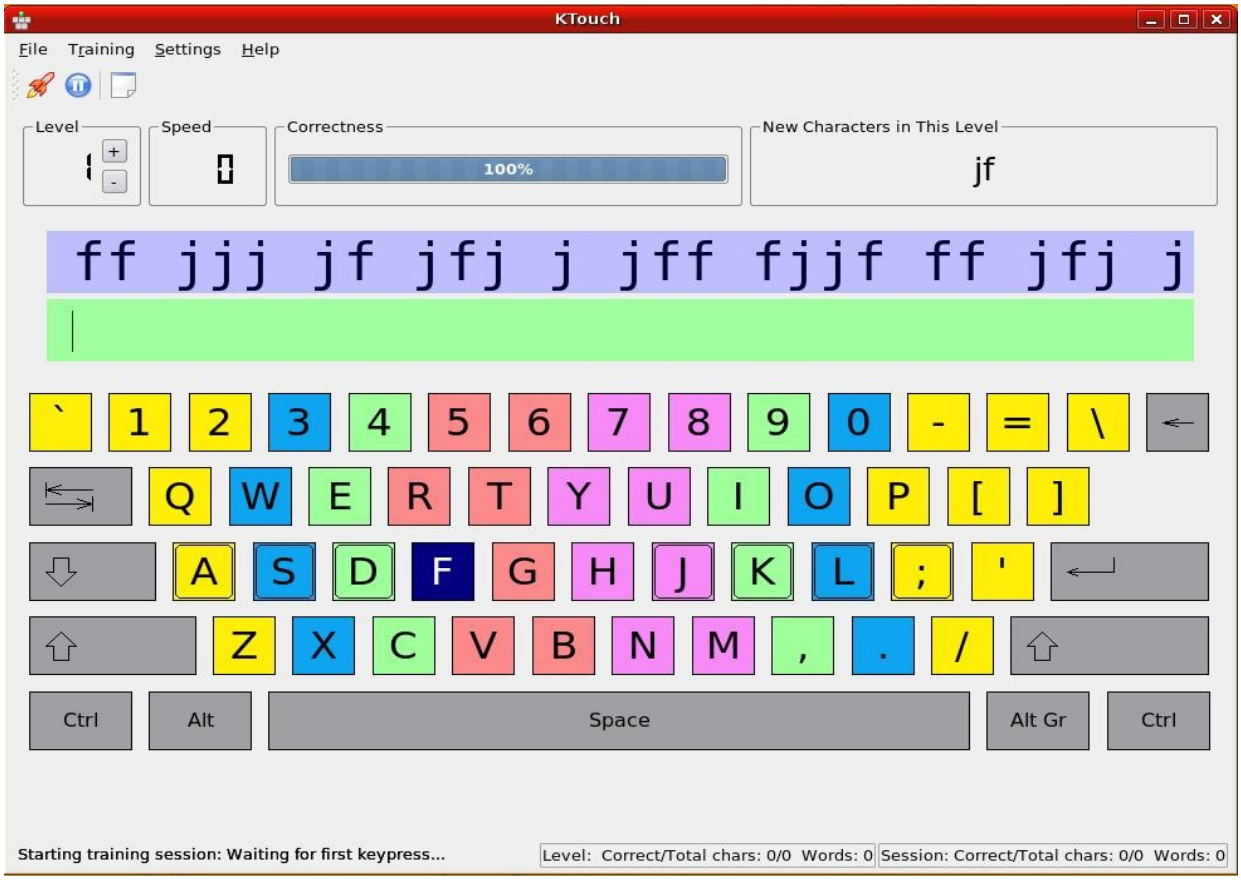


Figure c

Once we start typing the given list, the application also displays the typing speed, the degree of correctness. See figure c.

Once comfortable with the beginner's level, we can change to higher levels and practice.

Figure d

Lesson Plan

1. Ask the class which are the home row keys and let them show it on a real keyboard.
2. Once again stress the importance of typing skills. Also hunt and peck is not a typing skill.
3. Ask any one of the students the to show the right way of placing the fingers on the home row keys. Stress that this is also called the resting position.
4. Position your hands over these keys and start typing with the home row keys so as to make the kids remember the home row keys.
5. Now show how to start using the other 2 rows. When any other keys are to be pressed reach out for the respective key, depress the key and quickly retract back to the resting position.
6. Now allow kids to practice.

Lab Activities

(For reference use this picture!!)

- Test your typing skills by typing these words and sentences.

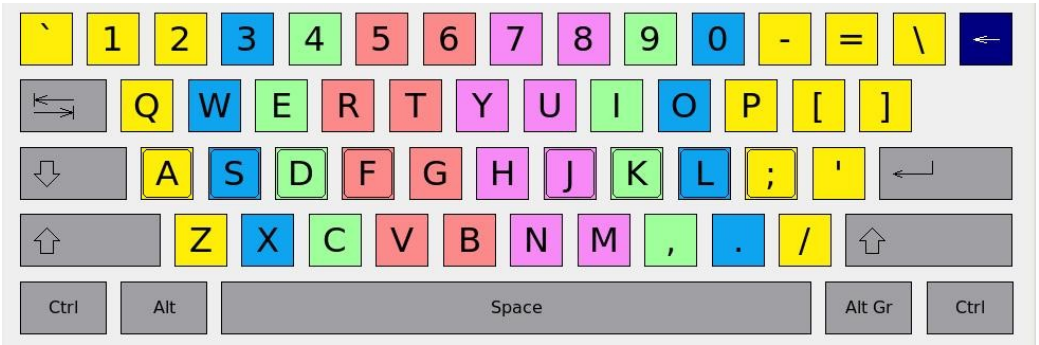
he she he she
shake a flake shake a flake
one, two, three, four, five
red, green, yellow, pink and blue
did he see a fish
she sells sea shells
she said her dad is a judge

- Write a paragraph about your school. Type using the correct fingers.

Work Sheets

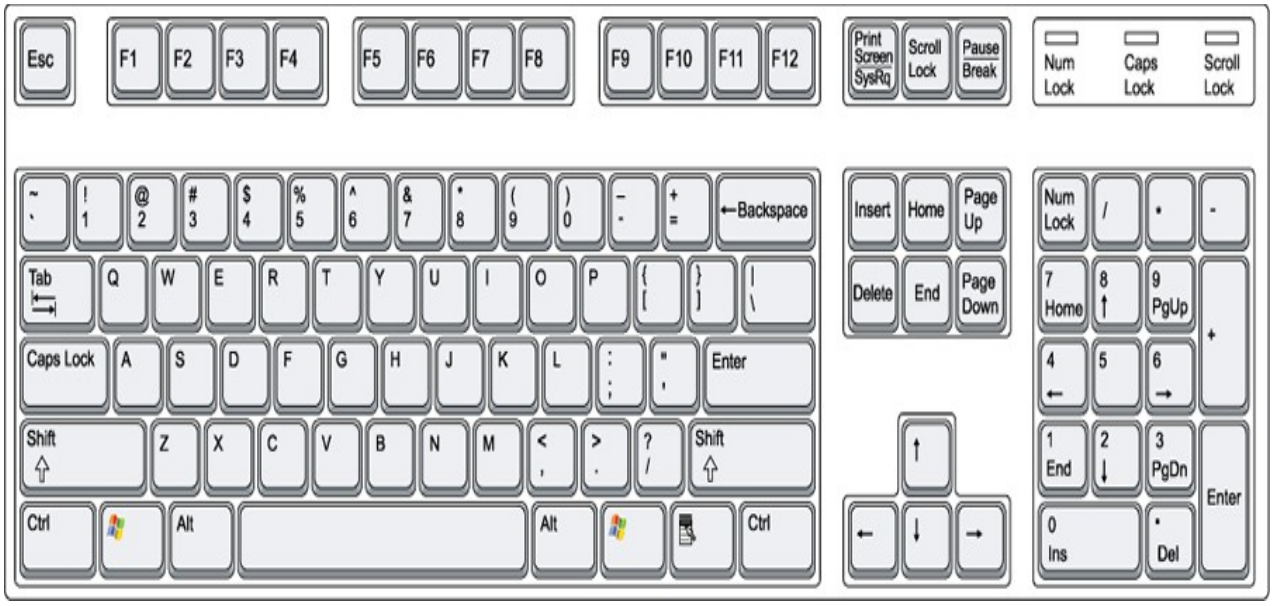
1. In the Top and Bottom row keys some letters are missing, fill them.

2. Write the names of the different rows on a keyboard.

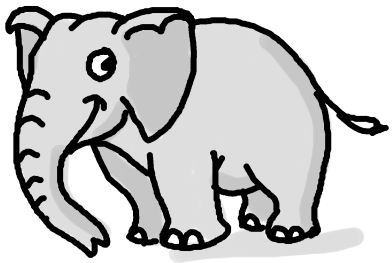
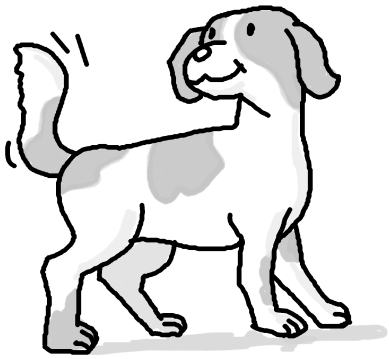
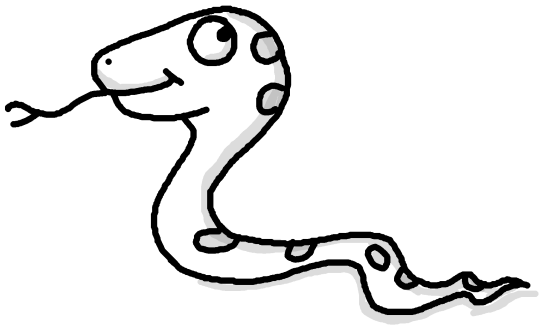
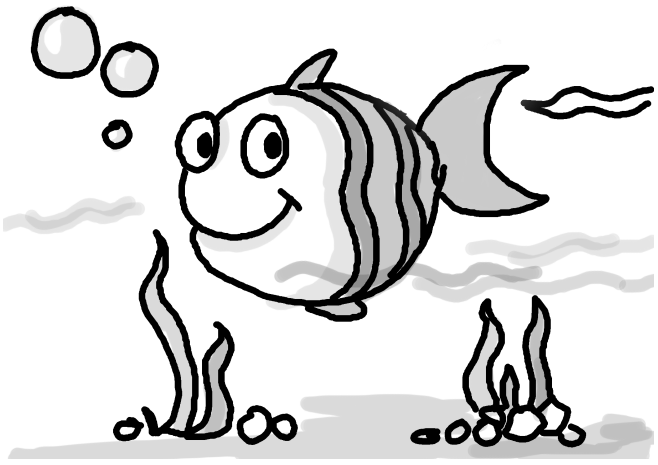
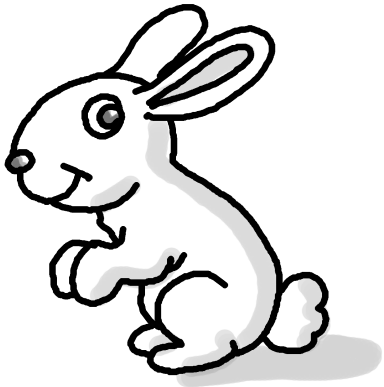


3. Figure shows a Keyboard. Paint the keys with the colours corresponding to the controlling fingers.

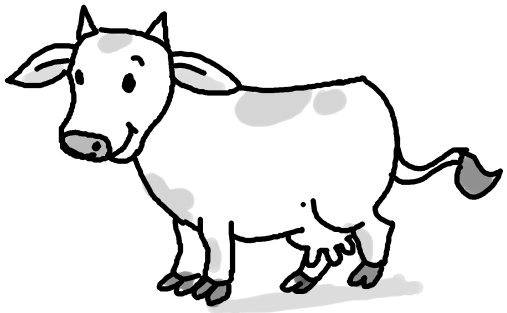
Yellow = little finger
Blue = ring finger
Green = middle finger
Red/ Pink = index finger
Gray = Thumbs



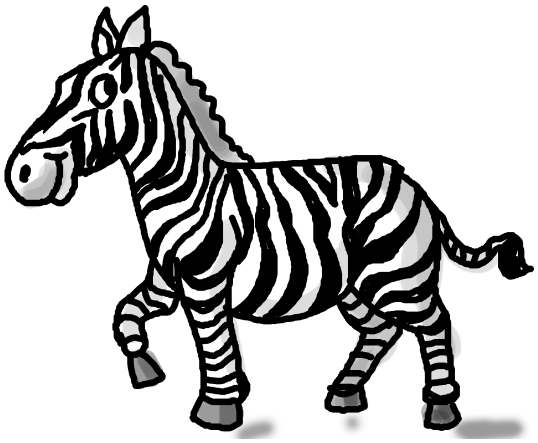
4. Identify the animal. Now spot the on which row the first letter of the name lies! (Tick the correct option)

 _____ (Home/ Top/ Bottom Row)	 _____ (Home/ Top/ Bottom Row)
 _____ (Home/ Top/ Bottom Row)	 _____ (Home/ Top/ Bottom Row)
 _____ (Home/ Top/ Bottom Row)	 _____ (Home/ Top/ Bottom Row)

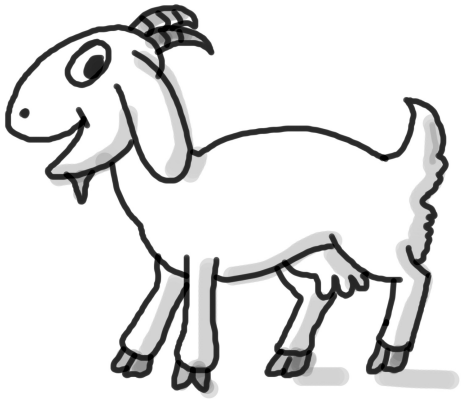
_____ (Home/ Top/ Bottom Row)



_____ (Home/ Top/ Bottom Row)



_____ (Home/ Top/ Bottom Row)



_____ (Home/ Top/ Bottom Row)

5. Identify in which Row the following letters lie and write the name of an animal starting with the same letter.

Letter	*Home/ Top/ Bottom Row*	*Animal*
R		
G		
T		
L		
D		

Title:	**Fun with text processing and editors. Such as: playing with colours, fonts, formats, etc.**		
Date:	May, 2007	**REF No:**	3.22
Contributers:	Usha Viswanathan	**Std:**	3
		Reviewers:	
Brief Description:	This topic introduces the concept of text processing, such as text formatting.		
Goal:	To introduce the concept of text processing.		
Pre-requisites:	Familiarity with word processing applications and good mouse control.		
Duration:	2 Sessions		
Reference:	http://www.webopedia.com/TERM/W/word_processing.html http://www.its.bldrdoc.gov/fs-1037/dir-040/_5897.htm		

Detailed Description:

What is text processing?

Text/Word processing is the use of a Computer system to manipulate text. Examples of word processing functions include entering, editing, rearranging, sorting, storing, retrieving, displaying, and printing text.

A **word processor** enables us to create a document, store it electronically, display it on a screen, modify it and print it. Word processors that support only these features are called **text editors.** Most word processors, however, support additional features that enable us to manipulate and format documents in more sophisticated ways. It allows you to change fonts within a document. For example, you can specify bold, italics, and underlining. Most word processors also let you change the font size and even the typeface. A spell checker is another utility in a word processor that allows you to check the spelling of words typed in. It will highlight any words that it does not recognize.

How to format text ?

Nowadays in most word processors, there are different features available which helps us to format the text by changing the font. A font is the shape and size of character of text. Text colours can also be changed.

For example, consider the following sentence: Hello! My name is Suppandi.
Following are some of the ways the same text can be written:

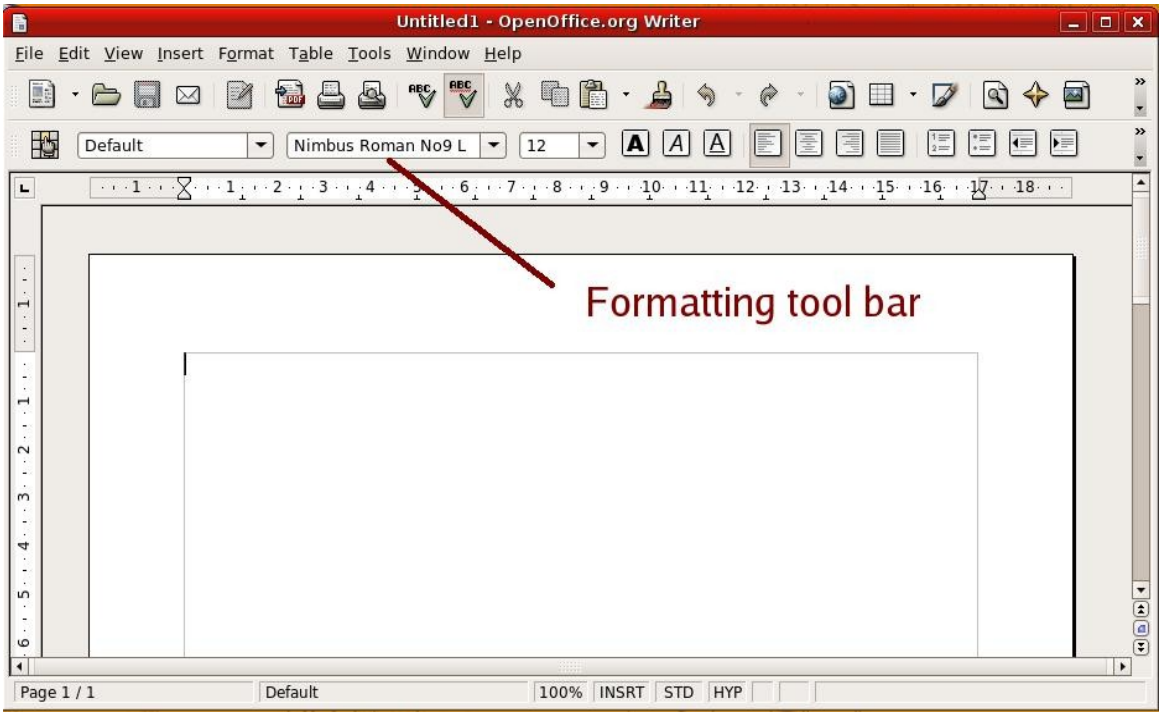
Hello! My name is Suppandi.

Hello! My name is Suppandi.

Hello! My name is Suppandi.

Hello! My name is Suppandi.

Figure (a) shows the screen we will see once we open the word processor application in edubuntu.



The Formatting tool bar helps us to format the text which we type in. Using this toolbar we can change the font, size of the font, style of the font, etc. These functions can also be accessed from the menu bar. (Format -> Character)

The following figure shows the different tool bar shortcuts available to change the font and its style.

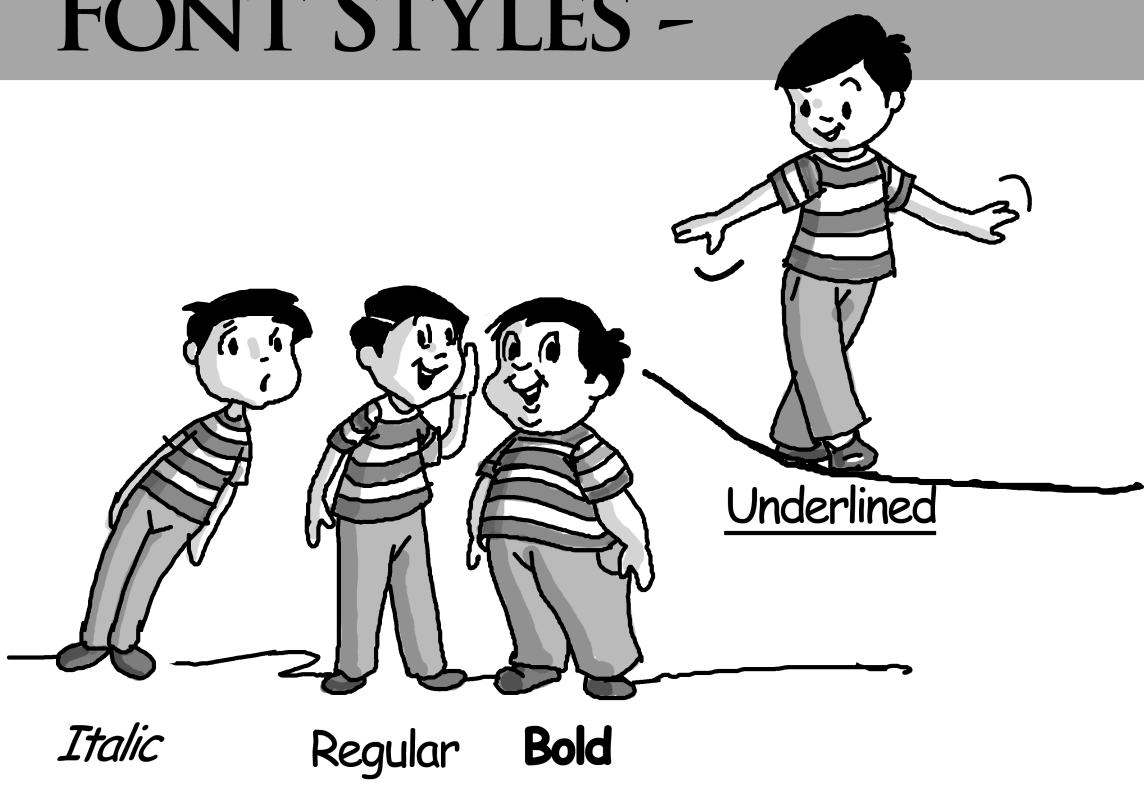
Lesson Plan:

1. Prepare a Poster to show the class. (Or you can also you the one attached with this lesson)

2. Show the poster and ask the students to identify the different ways the text are written, for example change in colour, style, underlined, etc.

3. Now let us explain the different font effects or styles we can render to a given text like bold/ underline/italics. To drive in the point we can use the following figure. A kid who is stout can be compared to a 'Bold' letter similarly a kid who is leaning over a wall can be compared to a letter written in 'Italics'.

FONT STYLES -



4. Now open a word processor application, type in some text. Now apply the different styles like bold, italics, etc. Care should be taken to apply one style at a time so that the kids don't get confused.

5. Now play with colours, like highlighting and changing the background/ font colour.

6. If possible now let the kids play and explore the possibilities themselves.

Nursery Rhymes

Baa Baa Black sheep

Baa, baa black sheep,

Have you any wool?

Yes sir, yes sir,

Three bags full.

One for my master,

One for my dame,

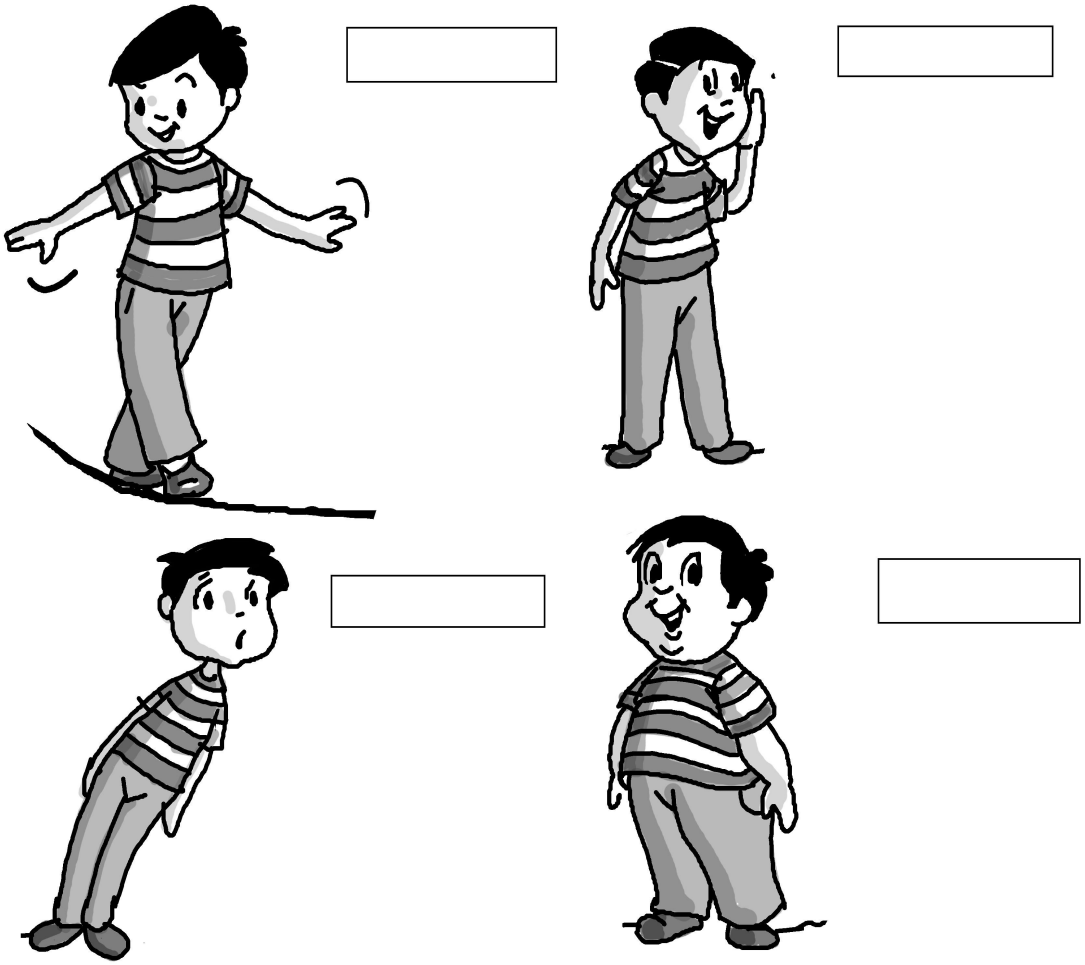
One for the little boy,

Who lives down the lane.

Work Sheets

1. Label each figure with the different font styles(given) you feel most appropriate:

(Bold Italics Regular Underlined)

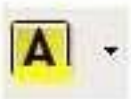


2. Match the following tool bar shortcuts with their functions.

Bold

Highlighting

Underline

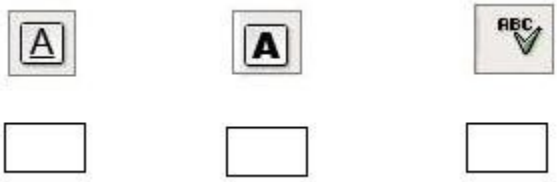


Italic

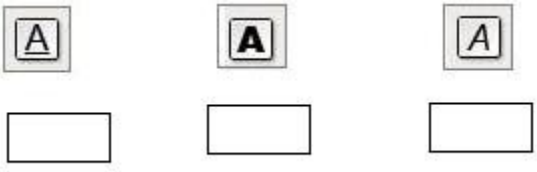
Font colour

3. Tick the correct one.

Tool bar shortcut to make a letter 'Bold'



Tool bar shortcut to underline a letter.



Activities

In Lab

1. Ask the students to type the following. Now let them change the text with their favourite colour.

Hello!
My name is (your name).
I study in Class III.

2. Ask the students to show different toolbar shortcuts in a word processor application.

Title:	**Ways to save files (different locations, different names).Such as: Same file contents saved with different names.**		
Date:	May, 2007	**REF No:**	3.25
Contributers:	Dhanya.P	**Std:**	3
		Reviewers:	Usha Viswanathan
Brief Description:	This topic introduces the different ways of saving a file.		
Goal:	To introduce the concept of file saving.		
Pre-requisites:	Familiarity with computer and mouse usage .		
Duration:	1 hour		
Reference:	http://www.webopedia.com/TERM/F/file.html		

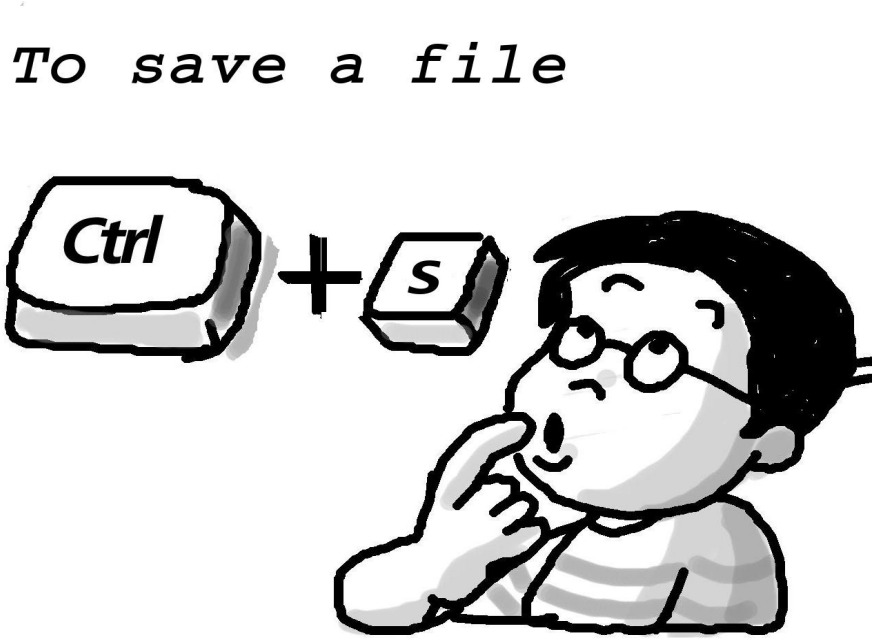
Detailed Description:

A **file** is a package of information with a name attached to it. Almost all information stored in a computer is in the form of a file. There are many different types of files: *data files, text files, graphic files* and so on. Different types of files store different types of information. For example, program files store programs, whereas text files store text.

The file you create need to be saved for future use. There are different ways of saving a file.

Different ways of saving a file:

1. **Control(Ctrl) + S**
   A file can be saved using the Control(Ctrl) key. Press the Ctrl key along with the key for letter 'S'.



2. **Using the Save icon on the toolbar**
   Another way of saving a file is to click the 'Save' icon from the toolbar

3. **Saving a file using the 'Save' option from the 'File' menu**
   To save a file we also can use the '**Save**' option from the 'File' menu. Click on the File menu, from the drop down list select the Save option. If the file is not saved already; a dialog window pops up asking the name of the file. Type in the name and click 'Save', to save the file. If the the file is already saved then the file is just updated with the new contents.

4. **Saving a file using the 'Save As' option from the 'File' menu**
   When the '**Save As'** option from the File menu bar is clicked, it also pops up the above window asking the name of the file. Type in the file name and save the file.

In all the cases above except case 4, if the file is already saved with a name, it will be updated by the current content with the same name. In the 'Save as' option the dialog box appears all the time asking for the new file name.

In this dialog bow we can even change the 'File type' as well as the 'Folder' in which the file is saved. Thus, the 'Save As' option allows you to save a file with a different name and in a different folder.

The name of a file identifies a file uniquely. Therefore more than one files in a folder can't have the same name. But, a file in a folder can have the same name as a file in other folders.

Lesson Plan Outline:

1. Ask the students how they can access the data/ information they have created the previous class.

2. Stress upon the importance of saving a file.

3. Open an application and create a file. Now save it using the 'Save' option in the menu bar.

4. The Dialog window pops up asking the file name, enter a relevant name for the file (to stress the ease of use as the file name can help us in identifying the contents of the file. While searching for a file it becomes easier).

5. Now again continue ti add data in the file and now save the file using the “Save' icon on the toolbar. Now close the file.

6. Open the saved file and save it by another name in the same directory and close it.

7. Open a file and save it using the 'Save As' option. Check what happens then.

8. Now save the same file with same name in another directory.

9. Create a file in an application and close it without saving. Ask the children “Can this file be opened for future use?”

Worksheets:

1. Fill in the blanks

1. For saving a file we can use the icon ____ in the toolbar.

a)  b)  c) 

2. The keyboard shortcut for saving a file is _____

a) Ctrl + S b) Shift + S c) Alt + S

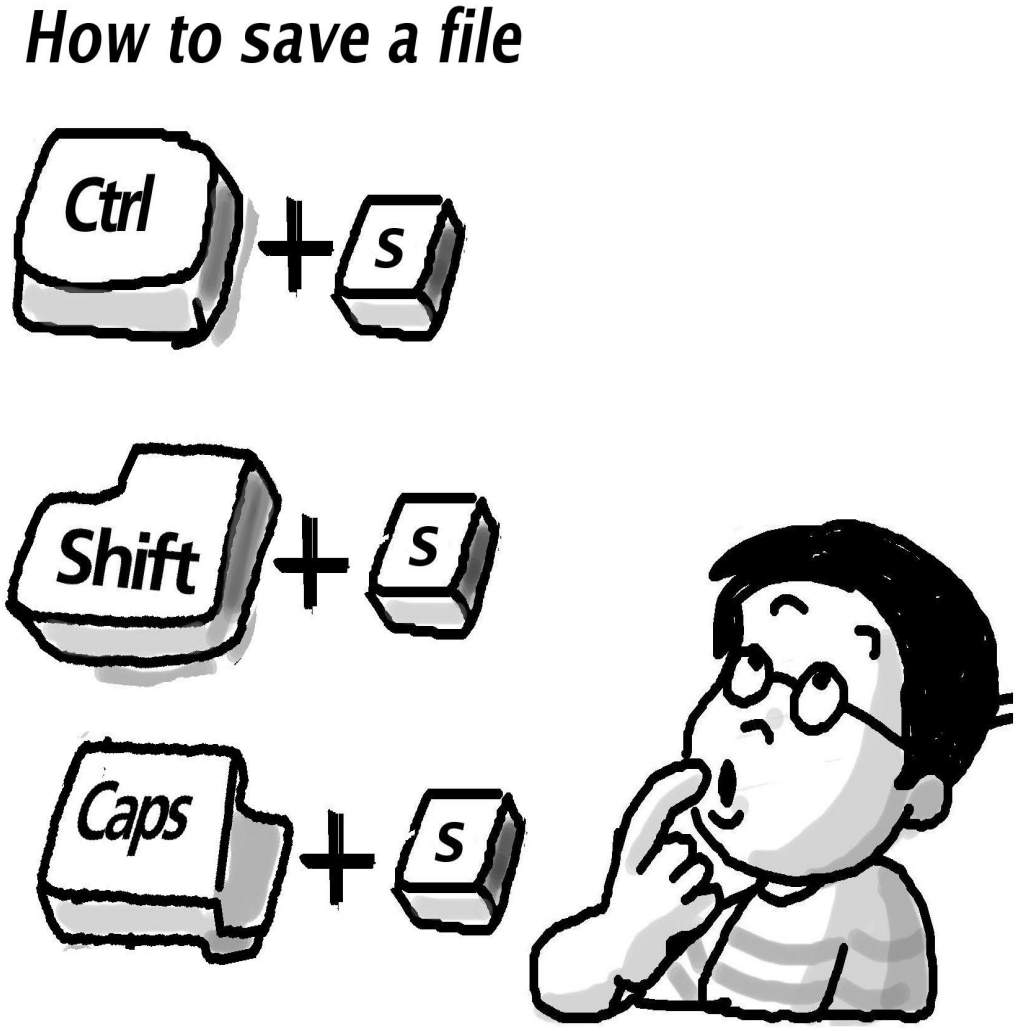
3. In order to save an existing file by a different name, use _____ option.

a) Save b) Save As c) Ctrl + S

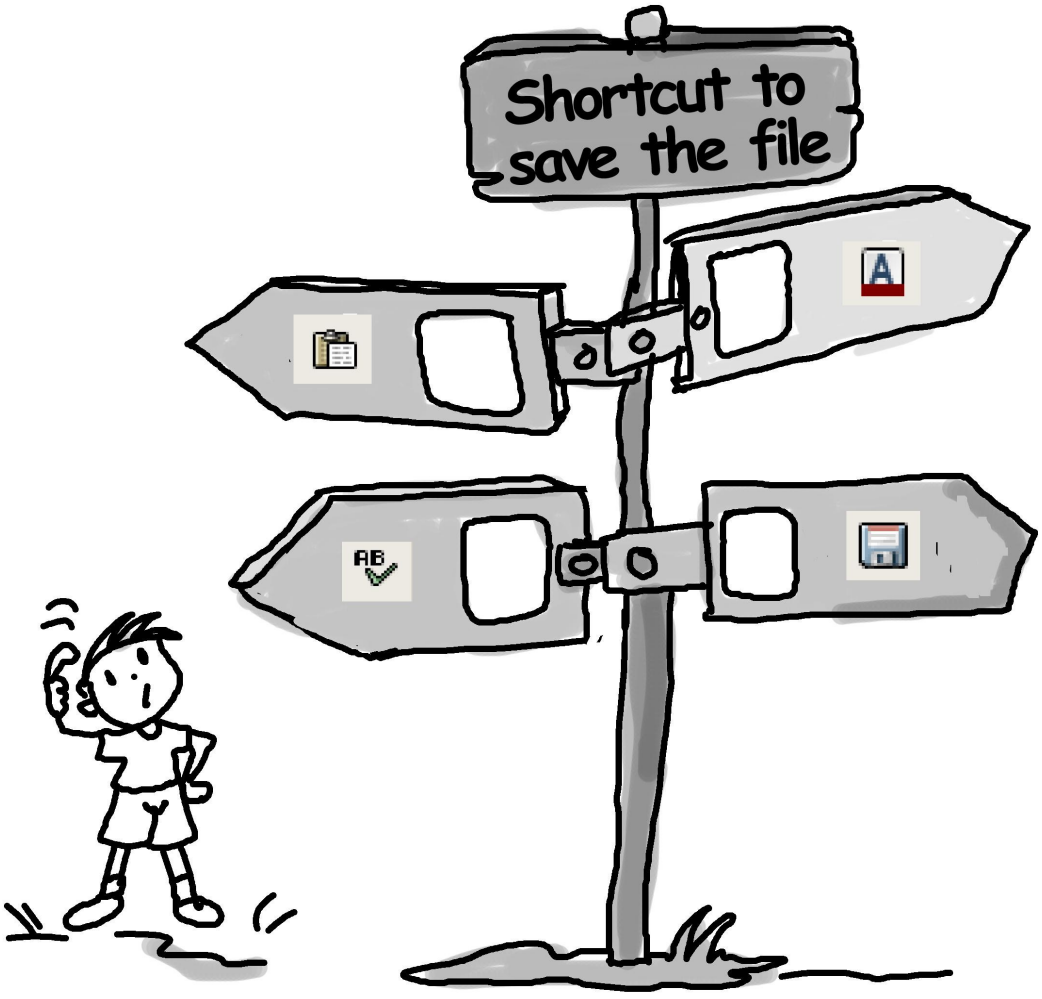
4. The 'Save' and “Save As' sub-menus can be selected from the _____ menu.

a) Edit b) File c) View

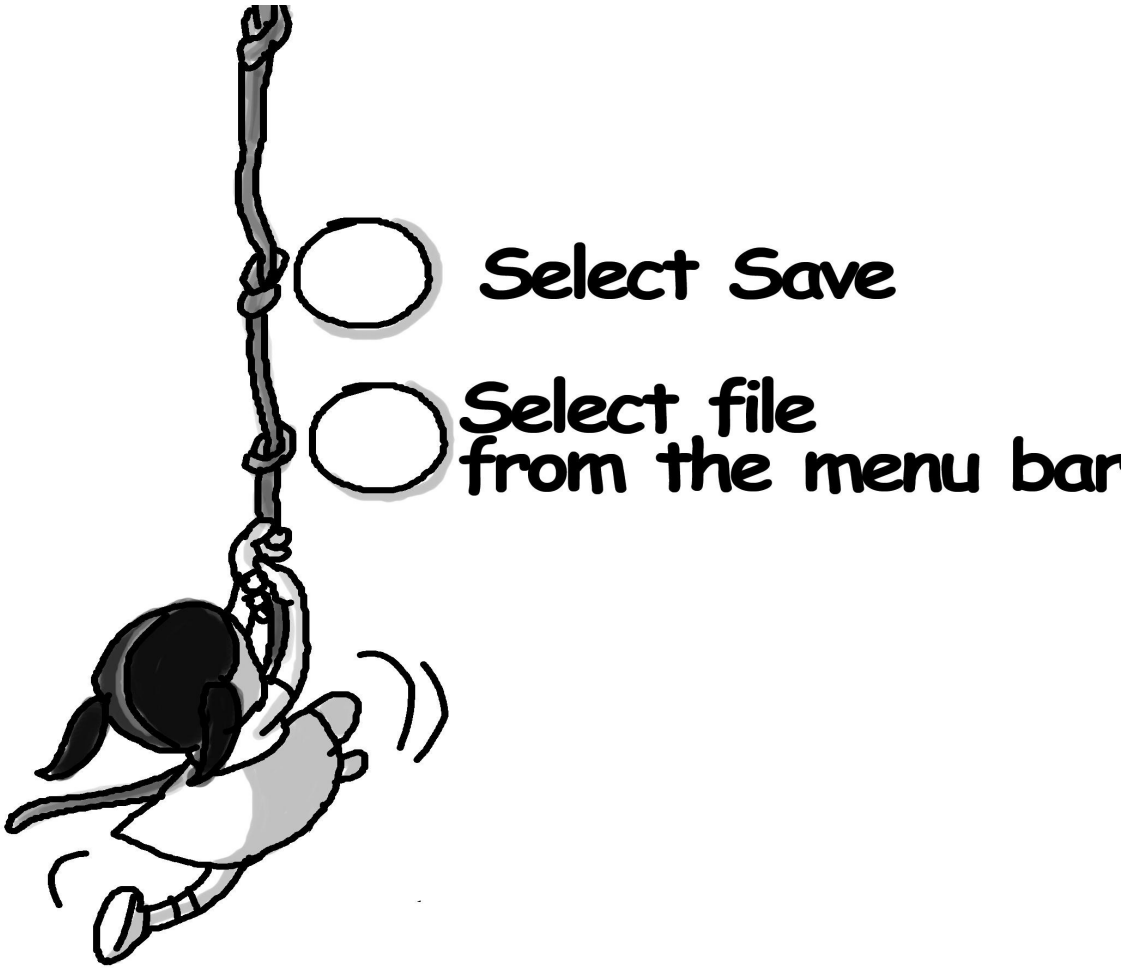
2. Suppandi doesn't know how to save a file. Can you help him to save the file? Tick the correct option.



3. Rohit wants to save a file, he doesn't know how to save a file. Can show the toolbar shortcut to save the file? Tick the correct option.



4. Neha is creating a file, number the steps which she has to follow to save the file.



Evaluation

In Lab

1. Create a document in OpenOffice Writer and save it in a folder named ‘First’.
2. Open the same file , edit and save it using a different name in the same folder.

Title:	**Concepts of storage and directory structure: Organising files using folders and sub-folders**		
Date :	June 2007	**REF No:**	3.26, 3.27
Contributors:	Dhanya P and Srinath Perur	**Std:**	3
		Reviewers:	Farida, Usha
Brief Description:	This topic introduces the concept of organising data files by naming them, and by using folders and sub-folders		
Goal:	To introduce the idea of organising data files. This is done through simple file naming conventions, and by using folders and sub-folders in directory structures. As a side-effect, the concept of sub-folders also introduces the notion of nested structures		
Pre-requisites:	Concept of files, and comfort in navigating with the mouse		
Duration:	One hour		
Resources:	http://www.jsmusic.org.uk/it_skills/file_hierarchy.html		

Detailed Description:

We create files while working on a computer, and when they are required for future use, we *save* them. For saving a file we need to specify a *file name* and the location where it is to be saved on the computer. The choice of file name is a very simple method of organising data on the computer. Usually, we choose a file name that tells us something about the contents of the file, without our having to open it. This allows us to quickly find the file we want when there are many files present.

Example: Suppose we are storing information about the children in a class, naming the files as **file1, file2, file3,** etc., would not help us find the file of a particular student. On the other hand, naming the files after the names of students, say, **mohit, neel, kabir**, and so on, would allow us to find a particular student's file quickly.

Folders

The location that is specified for a file is usually a *folder*. As with physical folders, we can organise related files together in a folder rather than storing them here and there.

Which is the correct way of keeping your books?

Folders help us by:

- allowing us to keep related documents or files together;
- making it easy to locate important files quickly;
- making it easier for us to perform operations (for example: *delete*) on groups of files rather than individual files
- allowing us to quickly take back ups of important data.

A folder that is created within another folder is called a *sub-folder*. Using folders and sub-folders can help us organise data very efficiently.

Illustrative example:

Suppose we have to store student information for school students, one way to create folders would be as follows:

j)Create a folder with the name of the school; this will contain information for students of that particular school.
k)Within the **school** folder, create folders for each standard in that school, for example, **std1, std2,** and so on. These are *sub-folders* of the **school** folder.
l)Similarly we can create further sub-folders within each standard for different sections, for example, **std3A, std3B,** and so on, and store files containing information about the students within these sub-folders.

The following figure shows this organisation of files and folders.

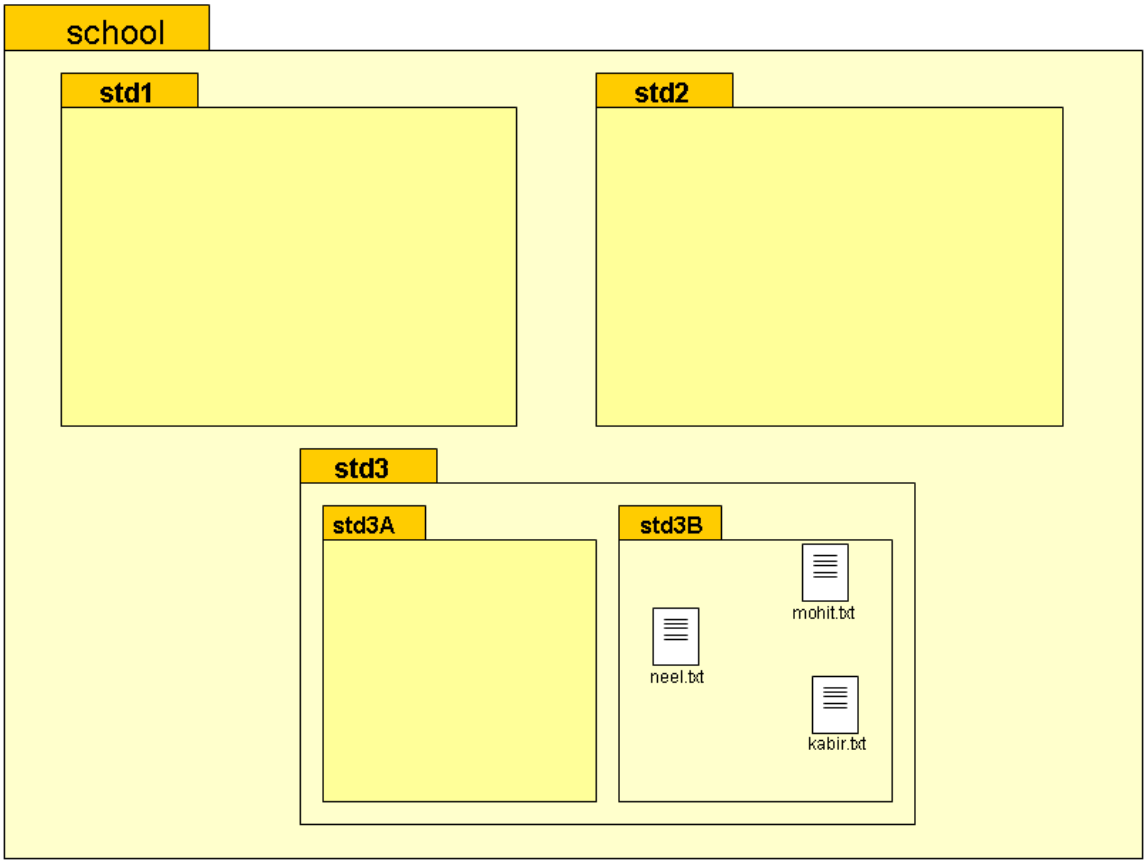


Figure b

Such a *hierarchy of folders* is called a *directory structure*. A directory structure is usually represented by a *tree diagram.* For the folders shown above, the tree diagram would looks like this:

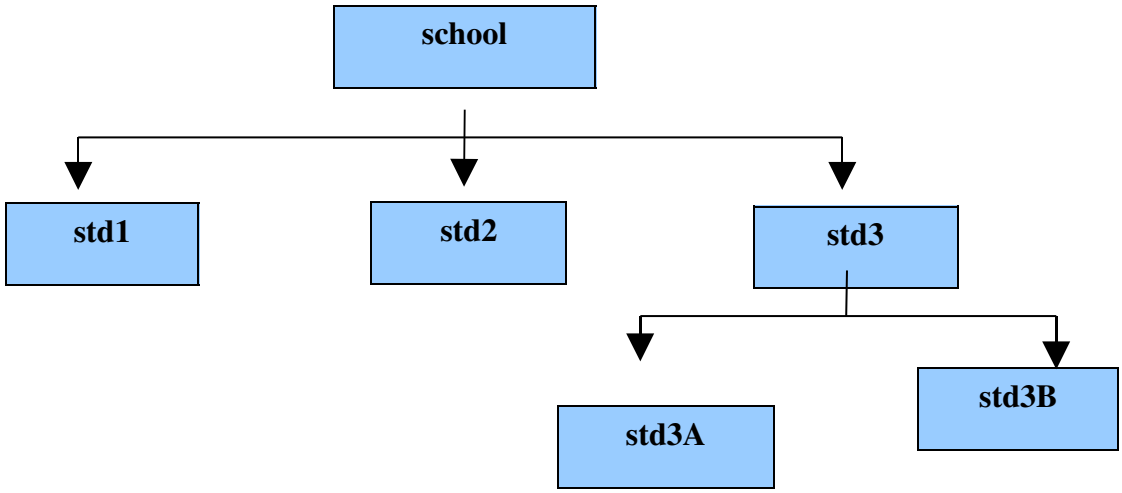


Figure c

The directory structure shown in the figures above can be described as follows:

- **school** is known as the *root folder*
- **std1**, **std2** and **std3** are *sub-folders* under the folder **school**
- **std3A** and **std3B** are sub-folders under the folder **std3**
- **mohit.txt**, **neel.txt** and **kabir.txt** are files under the folder **std3B**

What will happen if there are two boys with the name Mohit in the class? How will you save the files for the two of them?

Creating folders in Edubuntu

Creating folders on an Edubuntu system is very simple. Just right click, select the **Create folder** option, and enter a name for the folder. A sub-folder can be created as follows: double-clicking an existing folder opens up the folder's contents in a window; a new folder can now be created within this window. Files can be moved into a folder by dragging and dropping.

Lesson Plan:

The idea of grouping related files into a directory or folder, and of creating sub-folders, is a fairly intuitive one. The aim of this lesson is to reinforce the idea and strengthen this intuition. Emphasis here is not on terminology such as 'nested structures' or ' directory structure', as long as the idea is conveyed. This can be done using minimum terminology, say only *folder* and *sub-folder.* The idea of sub-folders can be handled using only a 'box-within-box' type of diagram. The tree diagram to indicate directory structure, and terms such as *root folder* can be introduced at the teacher's discretion.

1.Instead of getting straight into the technical points, begin with illustrations that will give an idea on how grouping things together lead to better organization. You may give the following examples:

People belonging together are called family, they share the same surname and they live together in one home. Similarly, all the files that belong together are grouped into one folder. For instance, if you want to visit your friend Rohit Mehra, you will get his

address and search for his home that may be carried the name plate of his parents. Once inside the house, you can meet your friend.

The same thing can be seen in your school too. In your school, what will happen if all students are taught in one big classroom instead of separate classes? Will the teacher be able to teach such a class? Will the students able to learn? You notice that there are grouped according to which class they belong to. There are primary section and secondary section, and different standard and divisions.

Similarly, the different files that belong together, because they are of the same kind or are about one common thing are grouped into one folder. For instance, you can have all .txt files that carries information about different family members or you can have different kinds of files, that carries text information, picture and voice sample of one particular family member.

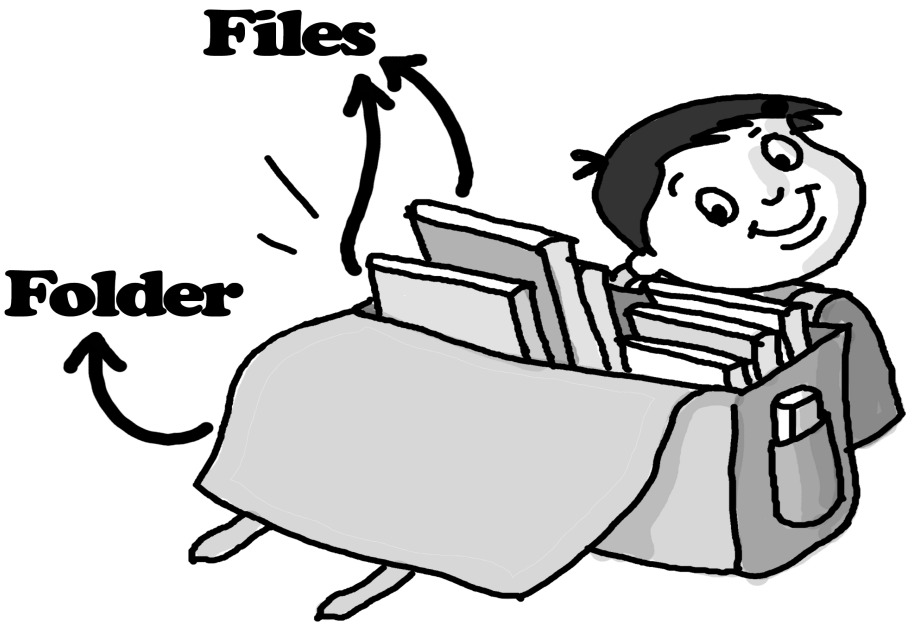


Figure d

2.In earlier classes, the students have created files and saved them. Discuss how the files were named. Could they have been named in any other way? Take an example and talk about how a file can be named to convey more information. For example, a file can easily

be named to tell us who created it, when it was created, what it contains, and so on.

3.Talk to the class about grouping related things together. For example, you could write the names of some students on the board and group them according to some criterion such as the row they sit in, or their favourite sport. You could then collect these groups under another group for the entire class, and talk about how every class could be put under similar groups. You could indicate this for the school with a simple box-within-box or tree diagram such as the one shown earlier.

4.You could then similarly introduce folders as a way of grouping related files on thecomputer. Give examples using file types that the students are familiar with: we would like to store music and TuxPaint files in different folders.

Activities

In the lab:

a) Create a simple directory structure on the computer for the school: a **school** folder contains a **student** and a **teacher** folder; the **student** folder can contain folders for a few classes, which contain files named after a few students of that class; the **teacher** folder can contain files named after a few teachers. Now ask the children to navigate to the files for a specific student or teacher.

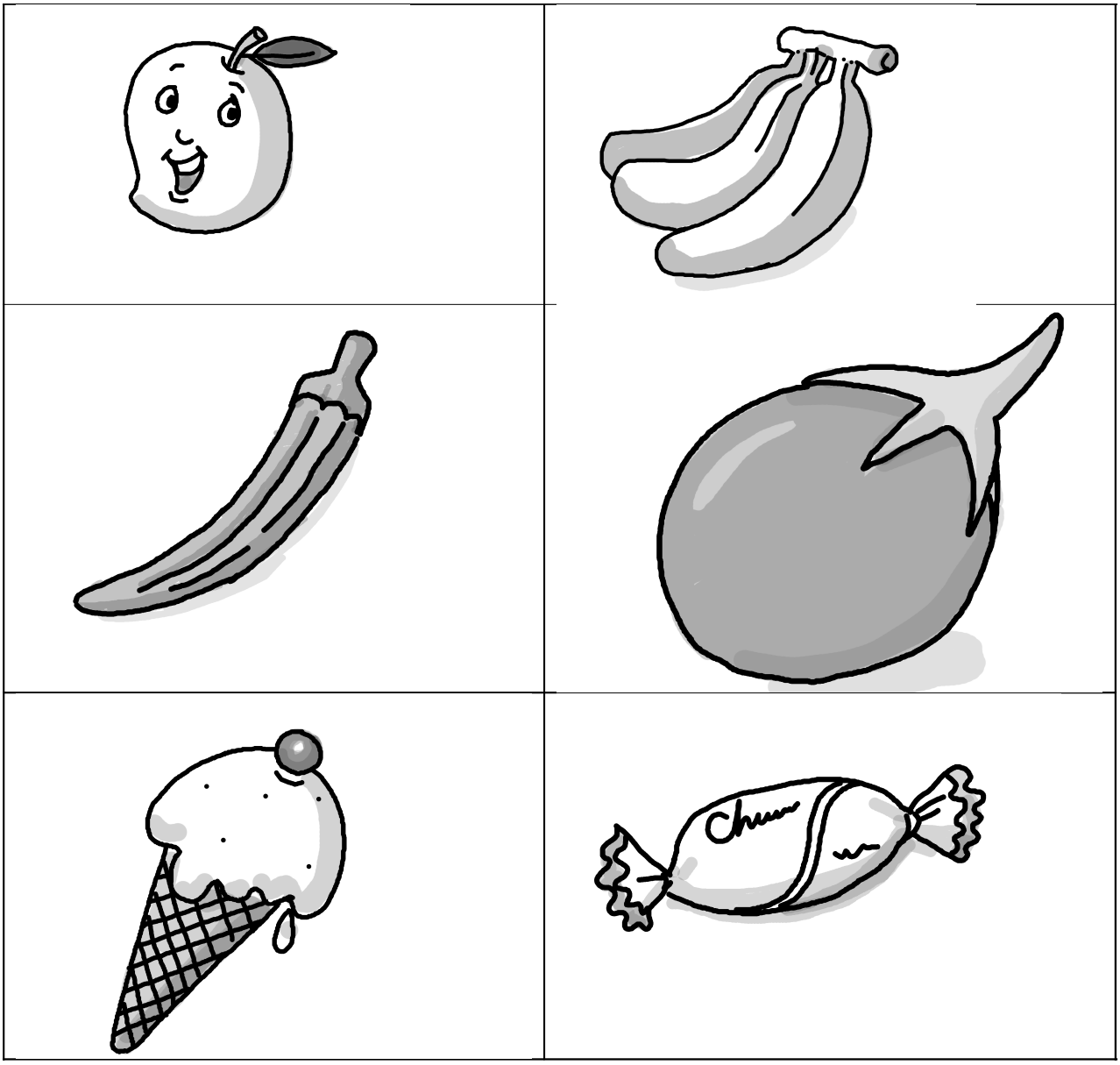
b) Show how folders are created, and how files are moved into folders.

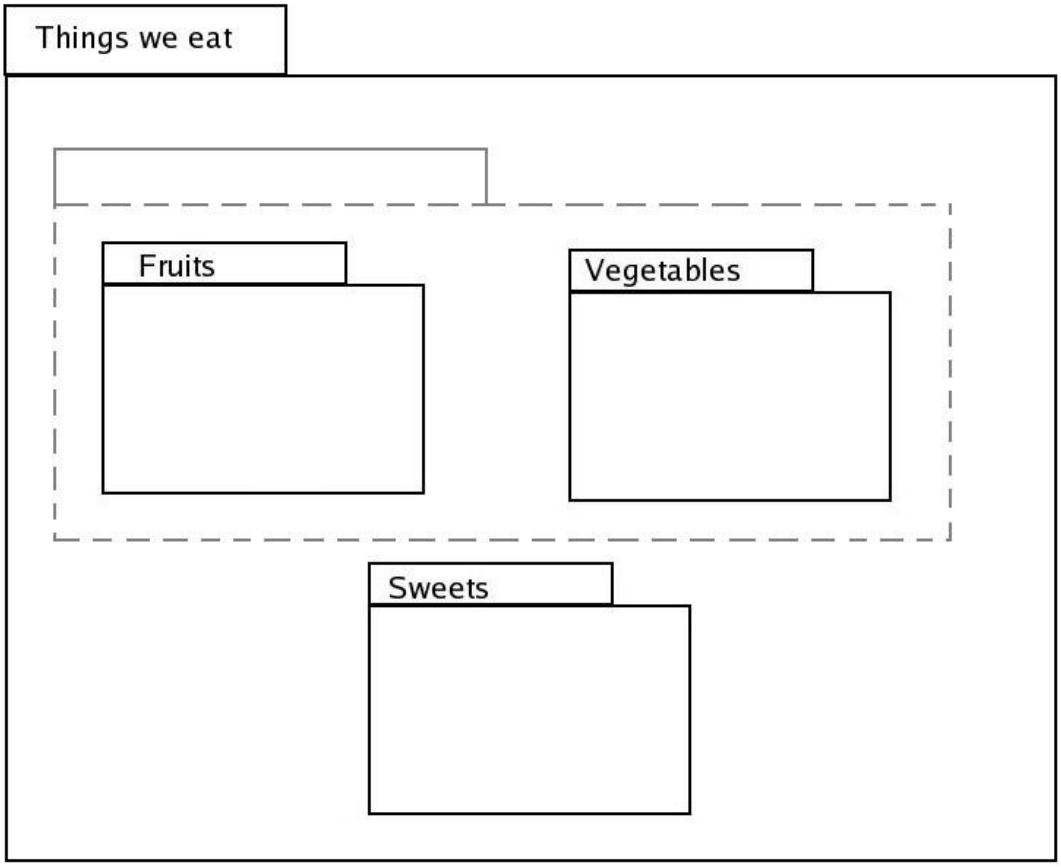
c) Collect a bunch of music files and picture files in a folder. Within this folder, ask students to create folders for **music** and **pictures**. Now, ask them to move the files to the appropriate folders after looking at the icons and the file extensions.

d) Some exercises are given in the Worksheet. Depending on the students' level of comfort with the topic, we recommend that the teacher devise exercises that involve grouping familiar items into folders and sub-folders.

Worksheet

1. See the list of eatables given below. We need to group them under Things we eat. One box is drawn which is labelled as **Things we eat**. Now can you fill in the rest.





Now, can you draw one more box called **Things we get from plants**?

2. Circle the icon that represents a folder



3. State whether the following statements are true or false.

a) A folder can contain other folders _____

b) Folders make it difficult to find files _____

4. With the help of the teacher, do Worksheet exercise 1 on the computer.

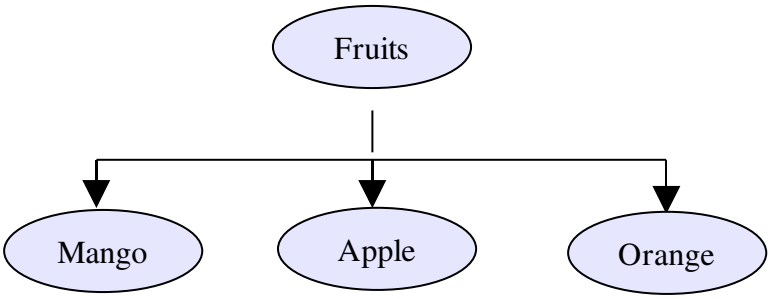
a) Create a folder called *Things we eat*

b) Inside this folder create files named *mango, banana, potato, brinjal, laddoo, kheer, roti.*

c) Now, create folders named **Fruits, Vegetables, Sweets,** and **Things we get from plants.**

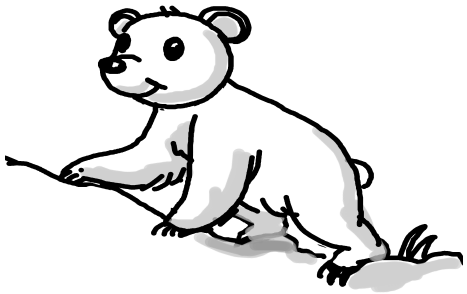
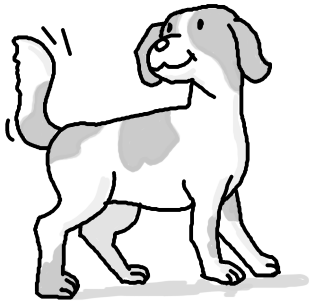
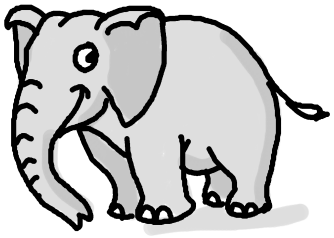
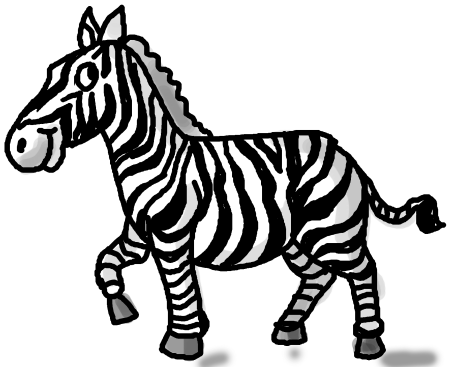
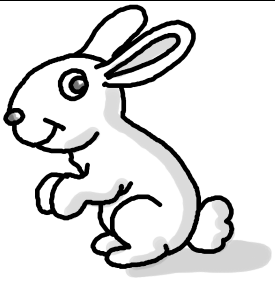
d) Now move each file to the most suitable folder. You can also move a folder into another folder if required.

5. In the following figure, can you say which is the root (main/parent) folder, and which are its sub-folders?

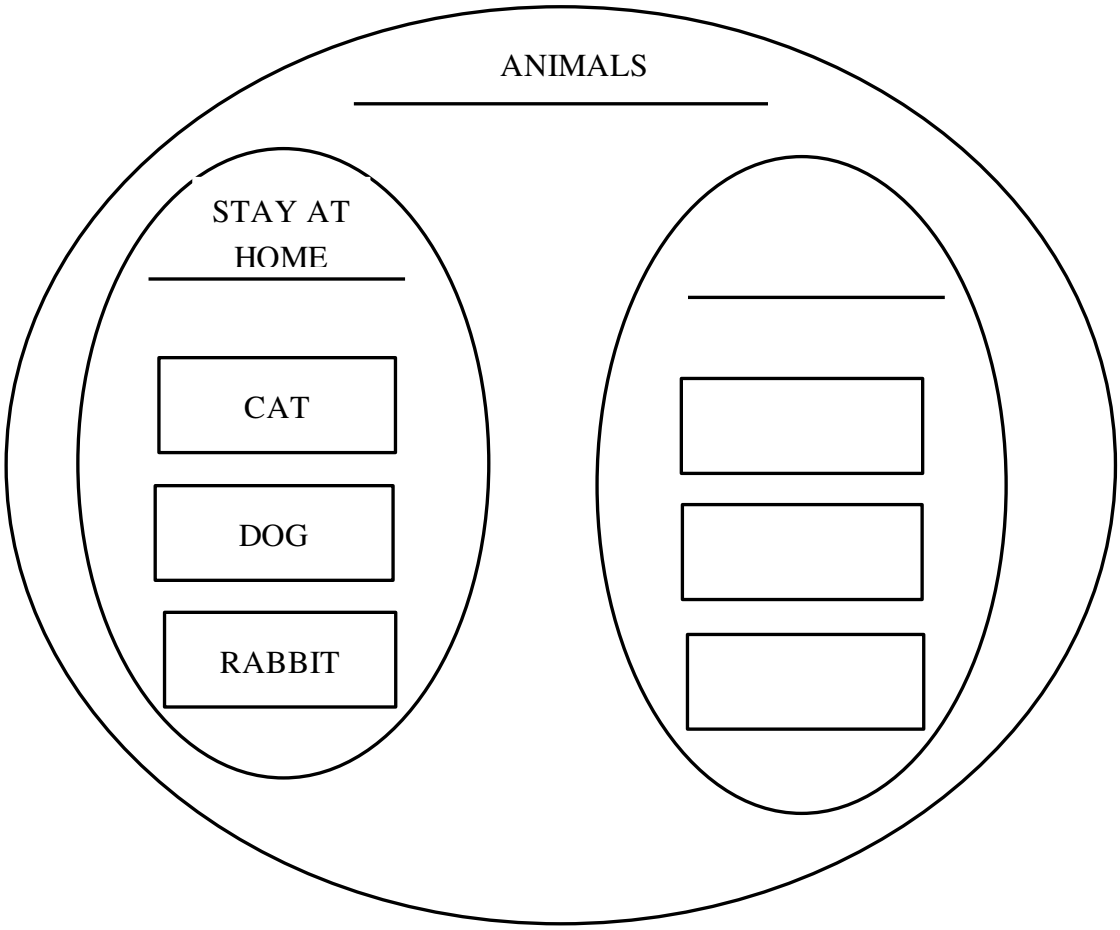


6. Can you create two files with the same name in a folder? Try and see what happens!

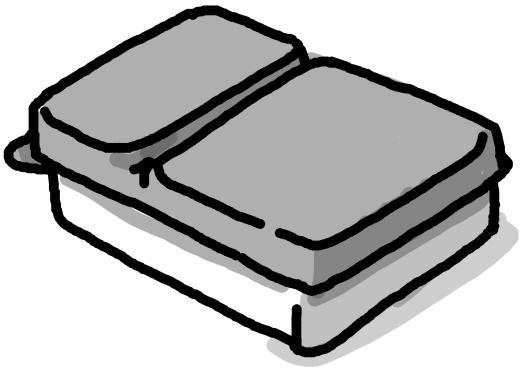
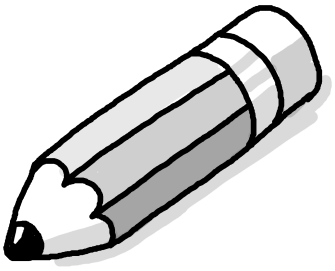
7. Following are pictures of some **animals.** Tick (√) the correct option whether they can stay at home or they stay in jungle

 Home/ Jungle	 Home/ Jungle
 Home/ Jungle	 Home/ Jungle
 Home/ Jungle	 Home/ Jungle

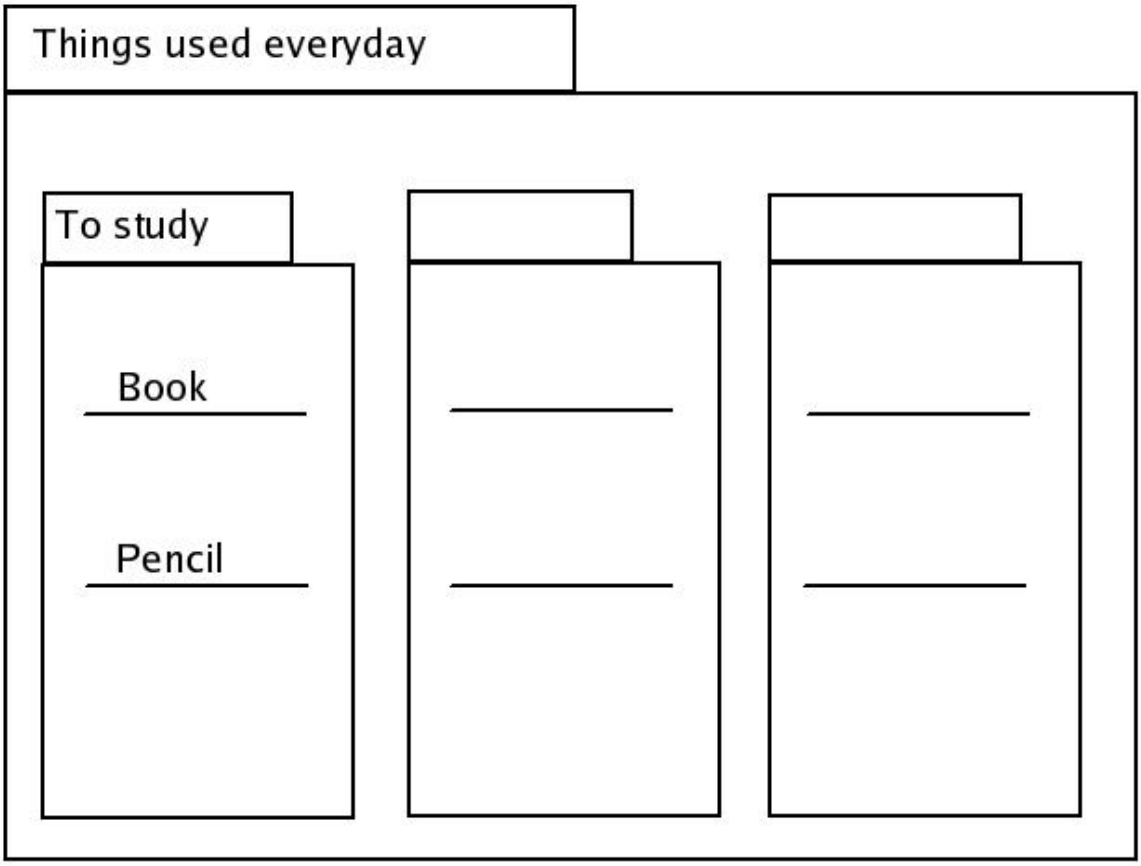
Now create files for each of the animals. Now show how you will save these files. You can use the following outline to guide you.



8. Following are pictures of some things you use every day. Tick (√) to show what they are used for Study, Play or Eating

 Study/ Play/ Eat	 Study/ Play/ Eat
 Study/ Play/ Eat	 Study/ Play/ Eat
 Study/ Play/ Eat	 Study/ Play/ Eat

Draw a chart to indicate how will you organize these things at home. The following outline will help you in it.



Imagine that you are having files of each of the above item on your computer. Then

1) Which is the root (main/parent) folder?

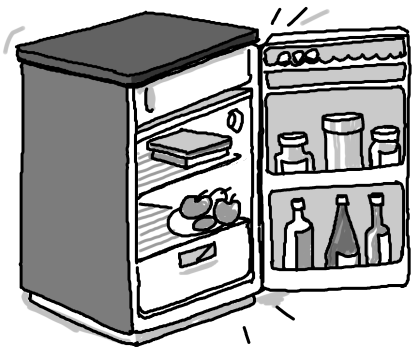
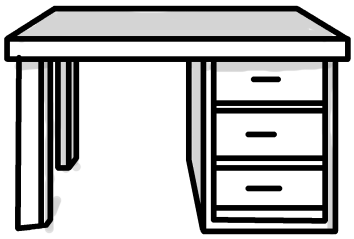
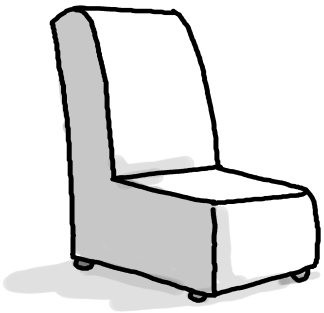
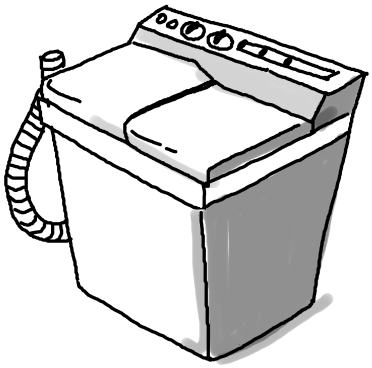
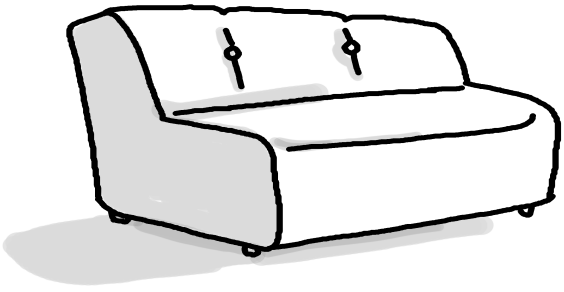
_____

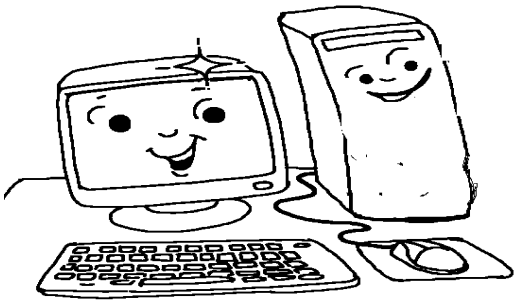
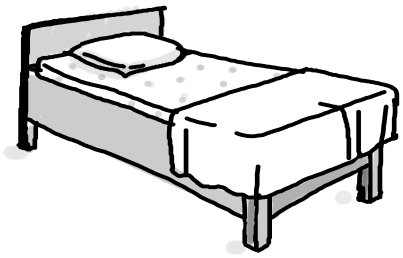
2) Name the sub-folders?

_____

3) Name the different files.

9. Following is a set of pictures of some things you see in your home. Separate them to indicate which are machines and which are furniture.

 Machine/ Furniture	 Machine/ Furniture
 Machine/ Furniture	 Machine/ Furniture
 Machine/ Furniture	 Machine/ Furniture

 Machine/ Furniture	 Machine/ Furniture

Imagine that you are having files of each of the above furniture and machines on your computer. How you will organise it? The following outline will help you in it.

1. Which will be the root (main/parent) folder?

2. Name the sub-folders?

3. Name the different files.

Title:	**Navigation within the computer (locating files and programs). Such as: by looking into various sub-folders .**		
Date:	May, 2007	**REF No:**	3.28
Contributers:	Semeena Kader	**Std:**	3
		Reviewers:	Usha Viswanathan
Brief Description:	This topic covers navigation within computer .		
Goal:	To be able to know about navigation , such as locating various files and folders .		
Pre-requisites:	The child should be familiar with computer and know to create and save files .		
Duration:	1 Session		
References:	*http://www.kidsdomain.com/brain/computer/lesson/comp_les7.html*		

Detailed Description :

Computers holds an enormous amount of data or information . It is important that these information should be a well organized. For this computers use files and folders . We can get the data by looking into various files and folders .

What is a File?

A **file** is a collection of data that is stored together. Everything that a computer does is based on data stored in files. Files may be a picture, a document, a video clip, or other piece of data. A file often has a small icon or picture associated with it. See figure a.

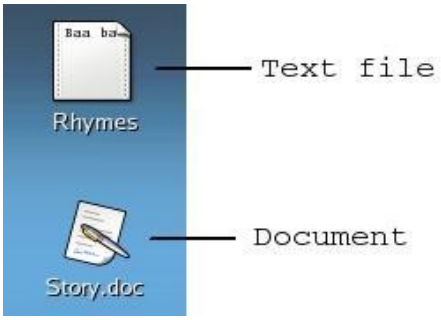


Figure a

You can do lots of things with files - create them, name them, rename them, save them, or delete them. Certain files can even be looked at, listened to, and run.

What is a Directory / Folder?

As thousands of files are stored inside a computer, it is very important to keep them organized. A folder, is an object that can hold multiple files or documents. (Folders are sometimes referred to as directories.) On the computer screen, a folder most often looks like a yellow or blue paper file folder. Folders keep files organized by grouping them together.

Figure b

Consider the example given below :

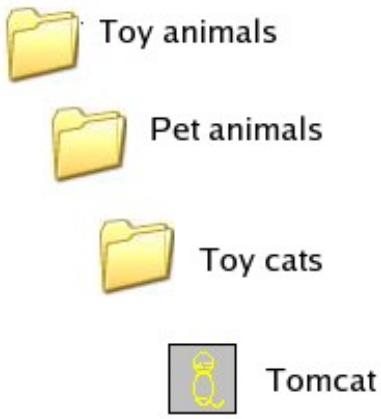


Figure c

Here 'Toy animals' , 'Pet animals' and 'Toy cats' are folders / directories . These can contain other folders / directories and files .Here 'Tomcat' is a file which is in the directory 'Toy cats' .

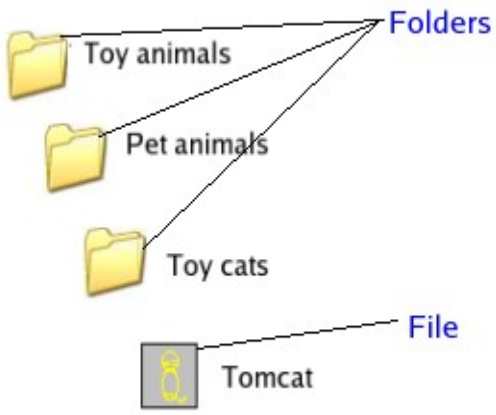


Figure d

As now we are familiar with the concepts of Folders and Files, we will see how to locate a file using the “File Browser”. Click on the Computer icon on the Desktop, it opens the 'Computer - File Browser” window. Now for example if we are interested in locating a folder “Toy Animals” which is on the Desktop. On the “Computer - File Browser” window it gives the option Desktop, click on it. Then it opens the “Desktop - File Browser”. From here we can see the “Toy Animals” folder. See figure e.

The file browser window can show the files and folders contained as either “Icons” or as a “List”. The figure shows the list view. It gives a lot of details about the files and folders like the size, the type (whether a Folder/ File(document/ spreadsheet/ graphic file etc.)), etc. If a file is clicked then it open the particular file. Clicking on folders shows the folder contents.

For example, clicking on the “Toy Animals” will open the “Toy Animals” file browser showing all the folder contents. This sort of arrangement of folders and files is called a “Nested Arrangement”.

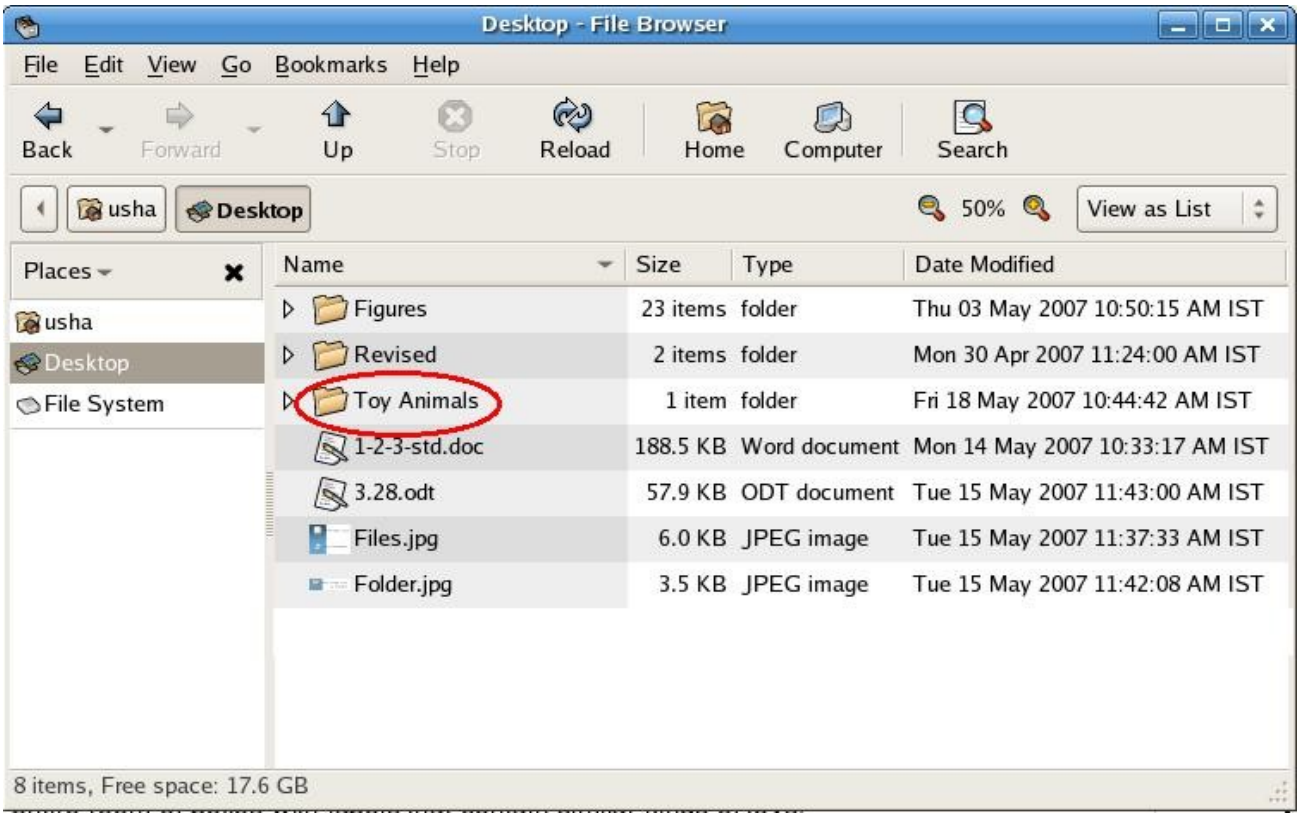


Figure e

Lesson Plan Outline:

You can use the the above pictures to explain and can start with an example:

You have a room full of toys and you are given the job of organizing all the toys . So you can group similar toys together ...right? For example you will take all the toy cats (like tomcat, pussy cat, etc.)into a box and label is as 'Toy cats'. Then you can put this box into another big box called 'Pet Animals' . Similarly you can group all toy dogs into box 'Toy dogs' and put that also in 'Pet Animals' . Then you can put this into another bigger box called 'Toy Animals'. If you continued to organize toys that way, you would end up with an entire room of boxes with labels that contain similar kinds of toys.

If you want to find out your tennis ball , what you will do ? You will search in 'Balls' and inside that 'Tennis balls' then u will find your favorite tennis ball ! .

This is the way in which we organize files in a computer. We will arrange similar type of **files**

into a **directory** or **folder** , similar directories into bigger directories and so on.

When you create new files , we must decide which folder to put them in . You can create new folders to store your files . For example a girl named Rita want to make a folder to put her all fun things . So she creates a folder titled Rita and within that folder she creates 4 new folders named 'paintings' ,'stories' , 'games' and 'rhymes' . Then when Rita draws a picture called 'Myhome' she stores or saves file that contain the picture in 'paintings' folder. On the computer file name can be Myhome.jpg because it is an image file .

Figure f

Similarly the stories created by Rita goes to the “Stories” folder. So in the end, we have to decide how to organize the folders and files created. The nested arrangement of storing folders and files make our job much easier.

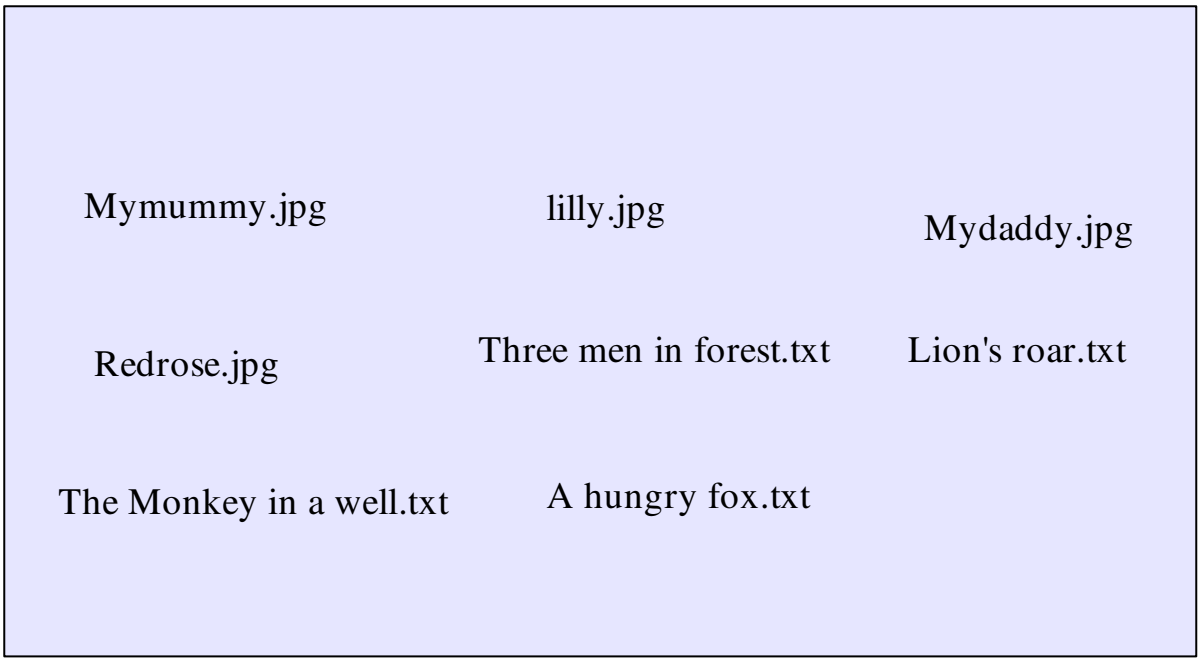
Title:	**Worksheets for navigation within the computer**		
Date:	May, 2007	**REF No:**	3.29
Contributers:	Semeena Kader	**Std:**	3
		Reviewers:	Usha Viswanathan
Brief Description:	Worksheets for navigation within a computer.		
Goal:			
Pre-requisites:			
Duration:	1 session		
References:	*http://www.kidsdomain.com/brain/computer/lesson/comp_les7.html*		

Worksheet (Ref. No. 3.29)

1. Organizing files

Organize the files in the following box by writing the filenames into the directory below . Be sure to put each file in the proper folder .

Note: Here assumed that the child is familiar with the file types such as .txt and .jpg . If they are not , give a note that .txt are text files and .jpg are image files .



Computer hard drive

Stories

Animals

_____

_____

_____

Others

_____

_____

Pictures

Family

_____

_____

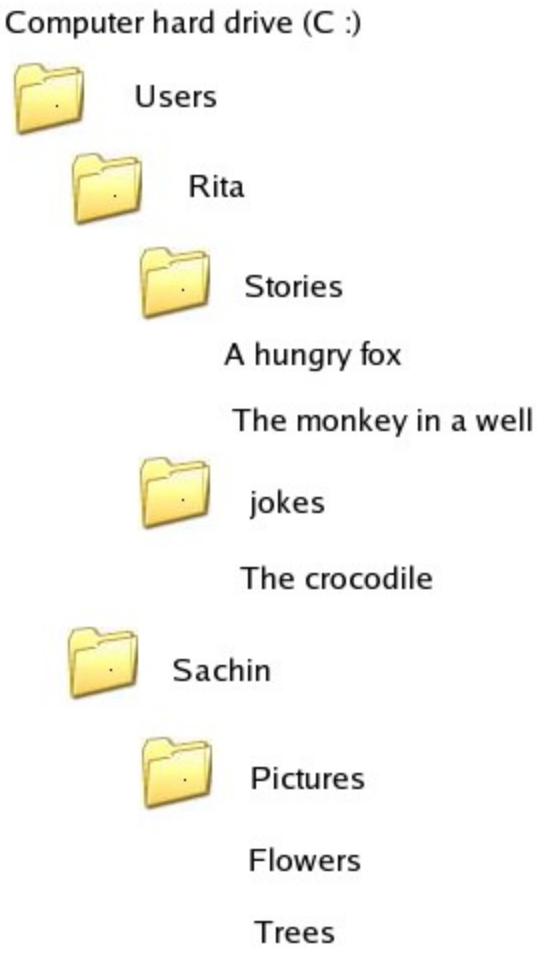
Flowers

_____

_____

2. Locate files

Fill the blanks to write the full path to locate file . The first one is given for you. This example uses the convention of windows OS .



1 . C:\\ Users\Rita\Stories\A hungry fox

2. C:\\ Users\Rita_____\The crocodile

3. C:\\ _____\Rita\Stories\The monkey in a well

4. C:\\ Users\Sachin_____\Flowers

5. C:\\Users _____\Pictures\Trees

Title	**Login/ log out and concepts of privacy such as login with pre-assigned user id and password.**		
Date	June, 2007	**REF No**	3.30
Contributor	Mangesh, Farida	**Std**	3
		Reviewer	Farida
Brief Description:	This section deals with the following: m)How to login to computer using pre-assigned user id and password and log out. n)How maintain privacy and prevent access to the computer by unauthorized users.		
Goal:	To teach how to login and logout from the computer and describe the process of ensuring privacy for the user.		
Pre-requisites:	Familiarity with computer. Students must have seen and used the computer		
Learning Outcome:	Students will learn how to login/logout to the computer and know how is privacy maintained with multiple users of one computer		
Duration:	2 Classes of 30 minutes each		

Detailed Description

When computers are shared between multiple users, the users are given a user name and password to access it. This ensures that only those who have permission to use the computer are using it. Thus, for login to the computer, one needs a ***user name*** and ***password.*** *Generally, these are given by* computer lab in-charge *to the user*. However, the user has the freedom to change the password after logging into the computer. These user id and password are case sensitive, that is it small and capital letters are recognised.

Precautions for choosing user name and password:

- User name should be easy to remember and in lower case.
- For the sake of privacy, password should not be similar to user name. However, it must be easy to remember.

- User name is mandatory but password is optional. That is, a user can choose to login without entering password.
- Everybody can know the user name, but the password should be kept secret.

How to login to computer:

1. Switch ON the main power supply button and ON the CPU and the monitor. Now wait for sometime and watch the screen carefully.

2. A window will pop up and ask you to enter user name (see figure a)

Figure a

3. After you enter the user name, it will ask for password. This is to check that the user is authorized to use the computer

4. Once the user name and password are accepted, the user can login to computer and the desktop will appear (figure b). This means that a computer session has begun.

Figure b

5. If user name and password are incorrect, the user will not be able to log in and the user will be asked to enter valid user name and password.

6. User cannot login to computer only if he enters a valid user name and password.

How to Logout from the computer

1. Click on ‘System' from the status bar of the computer that will open a pop up menu, now select 'Quit' option. Please see Figure c

Figure c

2. A dialog box as you see in Figure d appears.

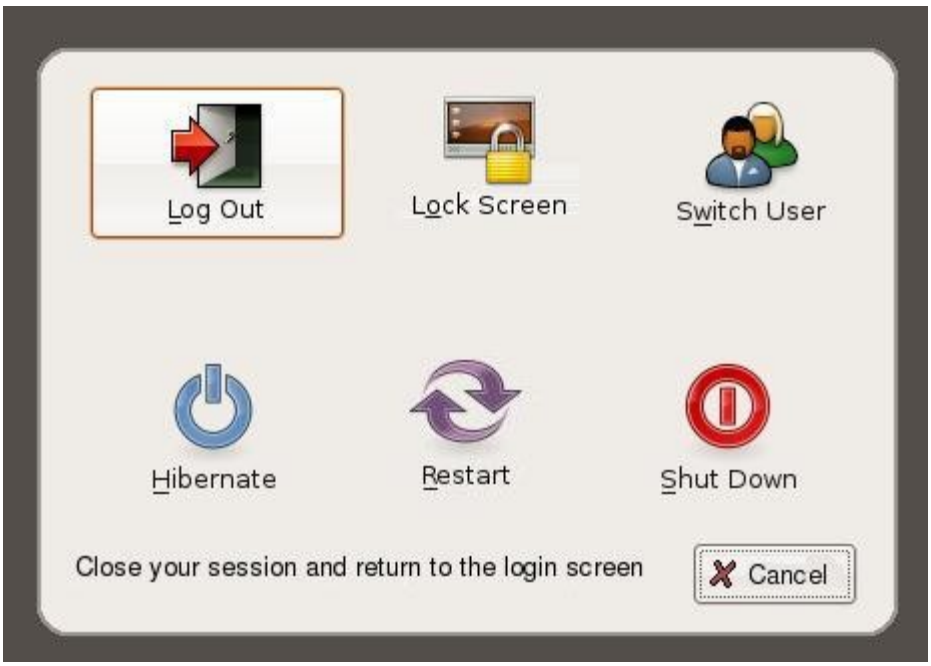


Figure d

3. Select 'Log Out' option from the option list. This will log you off from the computer.

Privacy:

The computer is not intelligent to recognize the user by itself. The user name and password protects the computer from access by an unauthorized user. Thus, no body can login without using valid user name and password and copy the contents from one computer to another computer.

Lesson plan outline

- Ask the student how would they recognize their friend amongst several students in the class. They may say face, voice, etc.

- Ask them how does computer recognize that only those who have the permission to use it are working on it. It does not see you or recognize your voice. Thus, the curiosity of the students will be aroused. Now, introduce the concept of user name and password.

- The password can be compared to a secret key to open the computer. When the correct password is entered, the computer session begins and you can run any application. Figure e demonstrates this

Figure e

- Ask them what will happen if they made a mistake in recognizing their friend in a crowd. They may share a secret with another person who is not friend. Explain why privacy is important and how user name and pass word helps to maintain this. Several people share a computer and each user may have their own secret and may not want the other user to know it. The user name and password ensures this.

Lab Session

You can take them to the computer lab and demonstrate this using the following steps:

1. Switch ON the power supply button, CPU and monitor. After the system is up, it will ask for user name.
2. Enter the valid user name and press 'Enter' key. After that it will ask for password.
3. Enter the password. If user name and password are correct, the desktop will appear otherwise it will ask for user name and password again.
4. User will not be able to login to the computer until user name and password is valid.

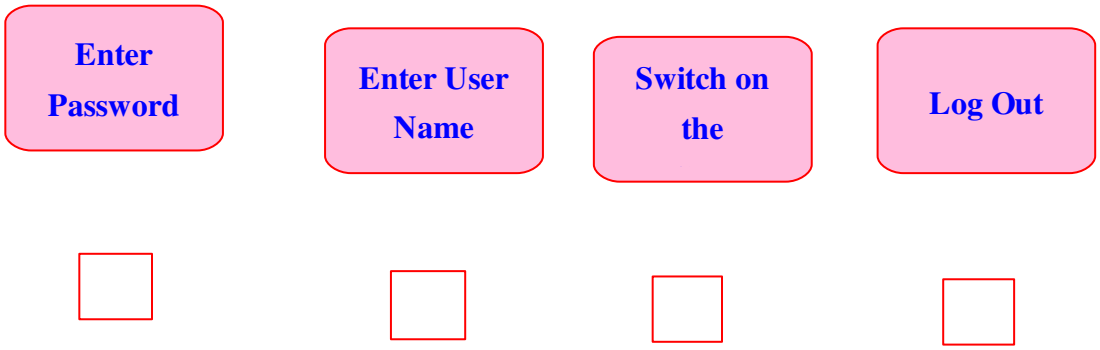
Now teach them to log out of the computer

5. Click on System' then option will appear then select 'log out' option.
6. On clicking on 'log out' option the system will log out

Repeat the above steps so that the concept of login and logout is understood.

Worksheet

1. Arrange in proper order



2. What will happen if you enter a wrong password?

_____

_____

_____

3. What will happen if you do not log out after you finish working on the computer?

_____

4. Match the column

S. No.	You do this	This is the outcome
1	Enter Password	Computer session begins
2	Give appointment details to the nurse	Computer session ends
3	Click on Log out	Attendance in the classroom
4	Say present when you roll number is called	Doctor gives you medicine

5. Unscramble the following words and match the columns:

1	M E R U A S N E	SESSION
2	O G I N L	COMPUTER
3	W P D A R O S S	MONITOR
4	T G U O O L	ENTERKEY
5	T R E P M U C O	USERNAME
6	N S I S O S E	LOGIN
7	M S Y T S E	CPU
8	R T E N E Y E K	PASSWORD
9	U P C	SYSTEM
10	T M N O I R O	LOGOUT