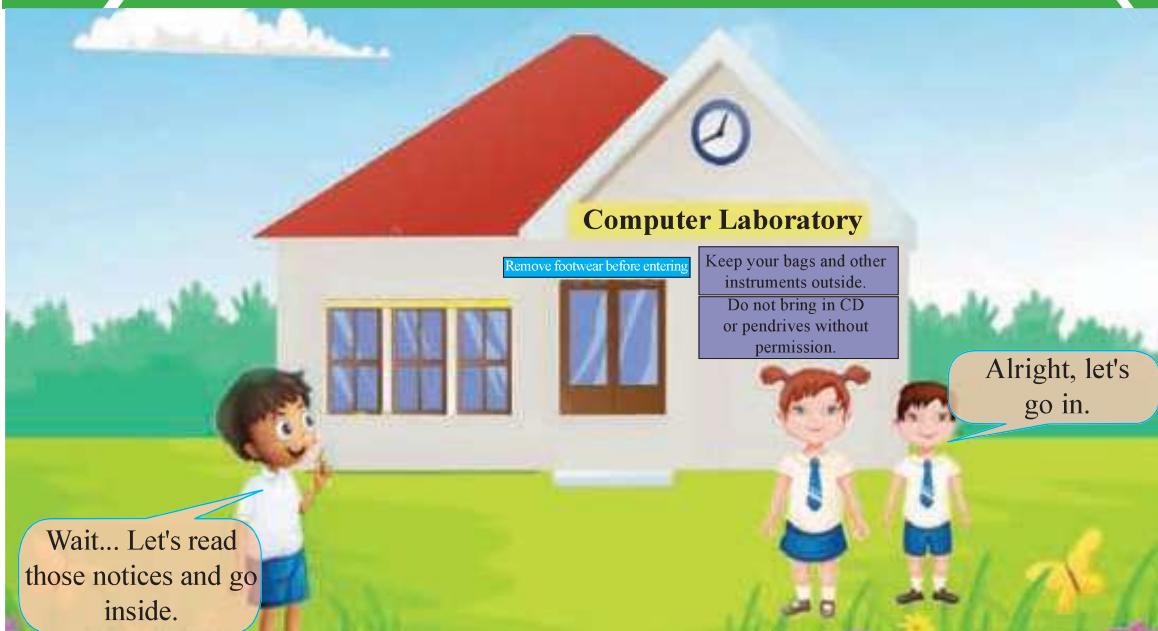




## 2

## Use the Computer Laboratory Safely

### 2.1 Let's Identify the Computer Laboratory



I welcome all of you to the computer lab. This computer lab is a valuable resource in our school. Since you all are new to this place, you need to know about this computer lab and how to use it well.

Computers and other accessories have been installed in the computer laboratory. Printers, scanners, multi-media projectors are some of them.

Computers and other accessories in a lab are expensive and valuable. A large amount of money have to be spent to repair a device, if it is damaged or to replace a new one. Therefore, it is your responsibility to use them properly and keep them safe.



**Figure 2.1 - A Computer laboratory**

### **2.1.1 / Let's use the Computer Laboratory Correctly**

#### **Using the computer laboratory correctly and safely**

Guidelines for your safety

Guidelines for the safety of the devices

## For your safety



Be careful when you touch devices such as wires and sockets that are connected to electricity.



Should be aware of the exit doors of the laboratory.



Should be aware of fire extinguishers if any.



Avoid running and playing inside the computer laboratory.

## For the safety of the devices



Do not supply power to devices without correct instructions.



The laboratory and all the equipment should be kept clean and dust-free.



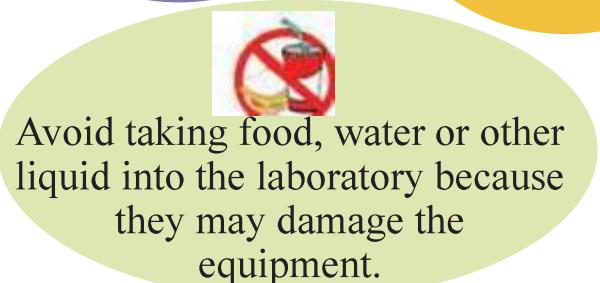
All the equipment must be switched off properly after use.



The used equipment should be placed in the proper place.



Footwear should be removed and placed outside the laboratory.



Avoid taking food, water or other liquid into the laboratory because they may damage the equipment.



Virus scanning should be done when connecting external storage devices such as flash drives to the computer.



## Activity 1 - See 2.1 in the Workbook.

### 2.2.1 Let's operate the Computer

We must practise to operate the computer correctly from our childhood. For that follow the guidelines given below.

1

First, supply electricity to the computer by turning on the switch connected to the computer.



2

If the computer is connected to an uninterrupted power supply (UPS), turn it on.



3

Next, the system unit should be switched on.



4

Finally, the monitor should be turned on.



Anyhow, the above steps may differ in modern computers (like laptop computers) which come with a single power button.



Please follow your teacher's instructions at all times since the above steps might be different in your laboratory.



The functioning computers should be shut down in a proper way. Otherwise, the life span of the computer may be shortened.

First, we should close any programmes that we have opened.

Then, select the command "Shutdown" and click on it.

Switch off the power on/off button of the monitor when it's screen becomes dark.

Then, switch off the UPS and the wall switch respectively.

### 2.2.2 // Let's learn Computer Ethics

“මහත් සෙත් වචවන  
සිරිත් මලදම බලමින  
සිරිත් හොඳ දැනගෙන  
මහත් යසසිරි ලබනු දෙලොවින”  
- සිරිත් මලදම

“Mahath seth wadawana  
Sirith maldam balamina  
Sirith honda denagena  
Mahath yasasiri labanu delowina”  
- Sirith Maldama

Meaning : Read Sirith maldama. It brings you peace. Learn and practise good values from it and it will bring you good fortune in this life and lives to come.

Dear children, you always get advices to be a good child at home and at school. These advices are called ethics, values, or good customs.

Good practices help to lead a good life. Similarly, there is a set of ethics that should be followed to use the computer properly. They are identified as 'computer ethics'.



### Activity 2 - See 2.2 in the Workbook.

This code of ethics can be considered as a set of guidelines that help you to use the computer properly.



#### When we use the computer laboratory...

Software which should be used by paying money should not be fakely used or copied.

we must refrain from accessing computer files and articles of others without permission.

we must not access the internet without the supervision of teachers.

we should not uninstall/ change/ delete any programmes without the permission of the teacher.

we must avoid hacking computer activities of others.

we must not repair any computer devices without proper instructions.

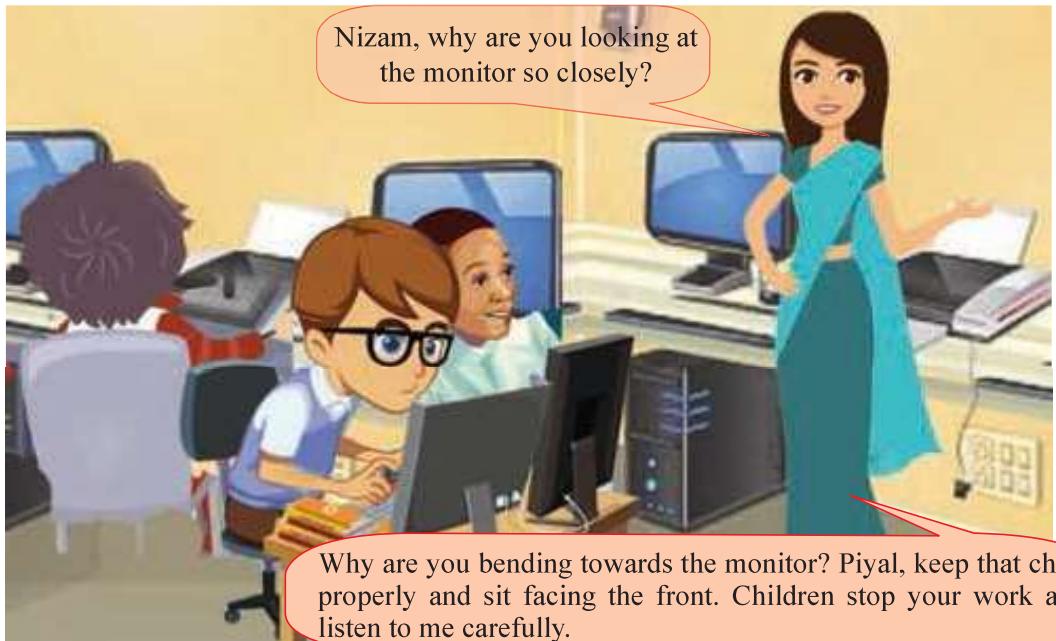
In addition, there can be some other rules and regulations related to your laboratory.

The above regulations are for grade 6 students like you. You will learn more on computer ethics in the forthcoming grades.

### Activity 3 - See 2.3 in the Workbook.



#### 2.2.3 / Let's use Correct Postures when using Computers



It is common for various health problems to occur when using computers constantly. Most of the illnesses occur due to the lack of maintaining a correct posture. So we need to practise maintaining a correct posture from our childhood.

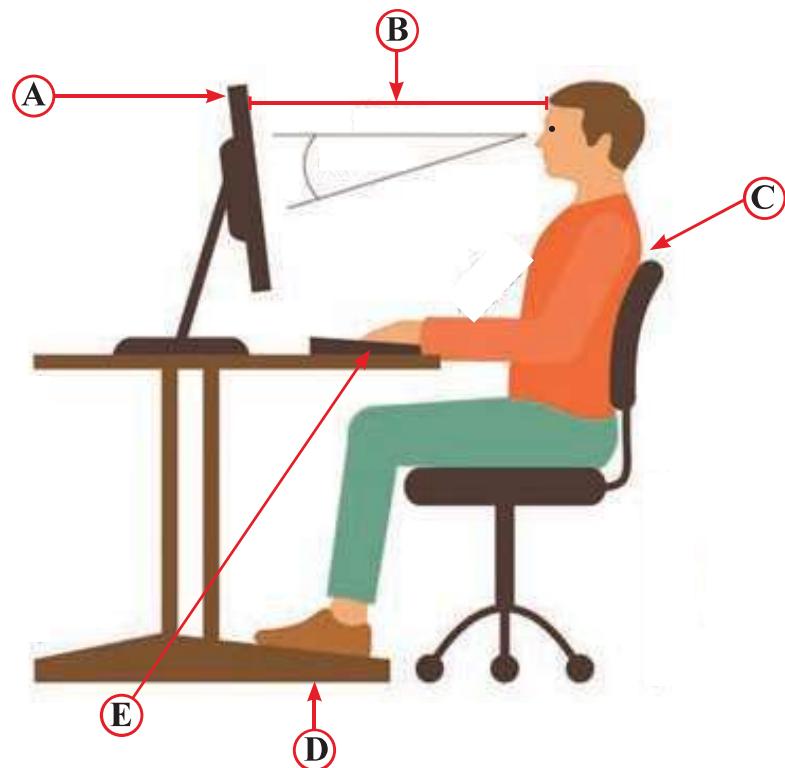


Figure 2.2 - Maintaining a Correct Posture when using a Computer

Correct postures to be followed	When correct postures are not maintained
A. Always keep the computer screen at the level of your eyes or little below.	Pain in the eye, problems in eyesight and tearful eyes can occur.
B. The distance between your eyes and the computer screen should be between 18 and 28 inches.	
C. Sit straight by leaning on to the back of the chair.	Pain in backbone.
D. Keep your legs vertically and place your feet on the ground.	Strain in feet.
E. Keep the keyboard and the mouse at the level of your elbow.	Pain in fingers and elbows.

In addition, adjust the brightness and the contrast of the computer screen to suit your eye. Often give a rest to your eye if you are working on your computer for a long period of time.

Although an incorrect posture can cause health issues, the computer is not a device that can be discarded. Therefore, we must use the computer properly to avoid such problems.

#### Activity 4 - See 2.4 in Workbook.



#### 2.2.4 / Let's dispose Electronic Waste Safely

All computer hardware is considered as electronic waste when they become out of use or when the user discards them.

When these harmful substances enter the human body. They can cause various diseases. They can cause various day-to-day inconveniences and gradually lead to develop various long-term non-curable diseases such as cancers and kidney diseases.

When we dispose these tools improperly to the environment it can cause great damage to the environment as well as to human beings, since they have been manufactured from various harmful metals such as Copper, Aluminum and Lead as well as from plastic.



- **Lead**

Damage the brain, kidneys and disorders in blood circulation

- **Barium**

Brain swelling, muscle weakness, damage to heart

- **Mercury**

Damage to kidneys and nervous system

- **Beryllium**

Lung Cancer

Figure 2.3 - Illnesses that can be caused due to electronic waste

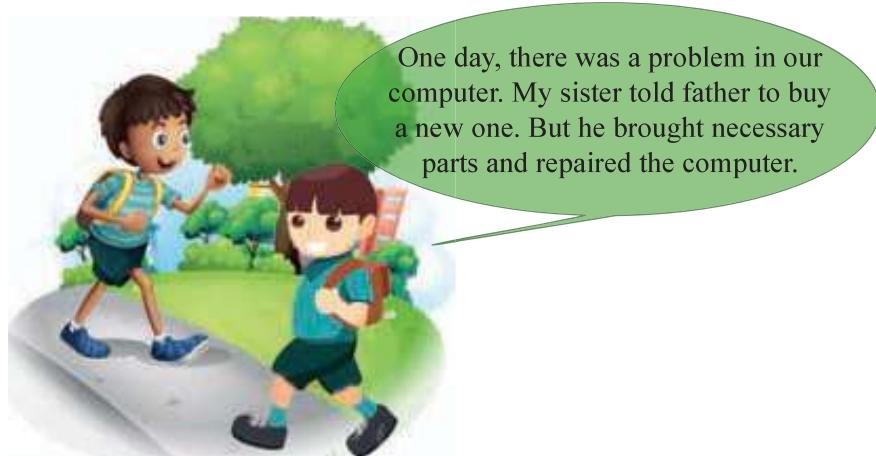


Since, these hazards can cause damages for generations, they must be disposed properly. For that, the 3R system can be used.

**Figure 2.4 - 3R Method**

### 1. Reduce

It is not necessary to upgrade to new equipment periodically if we maintain existing equipment properly as to use them for a long time. This reduces the amount of waste that is released to the environment.



**Activity 5 - See 2.5 in the Workbook.**



### 2. Reuse

When purchasing new equipment, consider donating or selling the old equipment if they are in working condition, without discarding them.



If it is not in working condition, then it can be utilized for other purposes.

For instance, as shown in the picture, an empty monitor can be used as a flower pot and a casing of the system unit can be used as a garbage bin.

**Figure 2.5 - Uses of Discarded Computers**

The amount of waste that is released to the environment is therefore minimal.

### 3. Recycle

Equipment which are not repairable or reusable, should be recycled without discarding them. It should be handed over to a electronic waste recycling company.



Recycling is a process of transforming the waste to a new product. Waste is separated into small parts and new material is produced through machinery.

#### Activity 6 - See 2.6 in the Workbook.



#### 2.2.5 / Let's use Passwords to protect Computers

Computers should be safeguarded physically as well as logically.





You must have read in fairy tales that a door is opened with a secret word. Also, there is a key to open main door of your house. Can you open the door without a key?



To protect the information stored in the computer from outsiders, a secret word can be set in the computer. That is known as a password.

Then you must enter the password before entering the computer. If the password is incorrect, the computer does not allow you to enter.

#### Follow the guidelines given below when setting a password

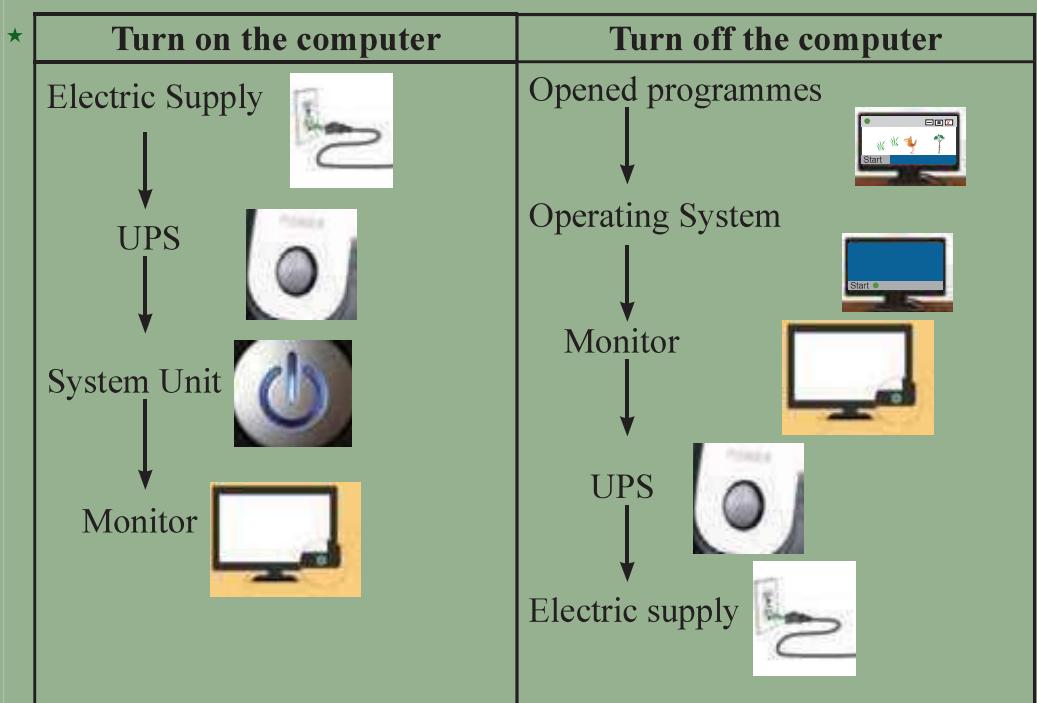
- ☞ The password must be a collection of letters (A-Z), numbers (0 - 9), and symbols (@, #, \$). It should have a minimum of 8 characters including at least one of the above types.
- ☞ The password must not include some simple information like your name, birthday, etc. which can be easily guessed.
- ☞ You can give a password hint.  
In case you forget the password, you can give a word or a statement as a hint that will help you to recall it again.
- ☞ By giving an e-mail address, the password can be restored.



#### Activity 7 - See 2.7 in the Workbook.



## Summary



- ★ It's our responsibility to avoid damaging any equipment in the laboratory.
- ★ Passwords can be used to protect the computers.
- ★ Electronic waste should be disposed properly without harming the environment.
- ★ When using the computer, maintain a correct posture to prevent from physical difficulties that occur on a daily basis and from long term health issues.