

## Unit 02

# Use the Computer Laboratory Safely



# Let's Identify the Computer Laboratory



- Computers and accessories like printers, scanners, and multimedia projectors in the computer lab are valuable and expensive. Repairing or replacing damaged equipment costs a lot of money. Therefore, it is important to use them carefully and keep them safe.



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.



# 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 fire extinguishers if any.



Should be aware of the exit doors of the laboratory.

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.



Footwear should be removed and placed outside the laboratory.



All the equipment must be switched off properly after use.



The used equipment should be placed in the proper place.



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.

## For your safety

1. What should you be careful with when touching electrical devices?
2. Why should you know the location of exit doors in the lab?
3. What should you be aware of in case of a fire?
4. Why should you avoid running and playing inside the computer lab?

## For the safety of the devices

1. Should you supply power to devices without correct instructions?
2. Why should the computer lab be kept clean and dust-free?
3. What should you do with your footwear before entering the lab?
4. When should you switch off the equipment?
5. What should you do with the equipment after using it?
6. Why should you avoid bringing food or drinks into the lab?
7. What should you do before using a flash drive on a computer?

# Let's operate the Computer

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



1. What is the first step when turning on a computer?
2. What should you do if the computer is connected to a UPS?
3. When should you turn on the system unit?
4. What is the last step when turning on a computer?
5. Why is it important to follow the correct order when switching on the computer?

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.

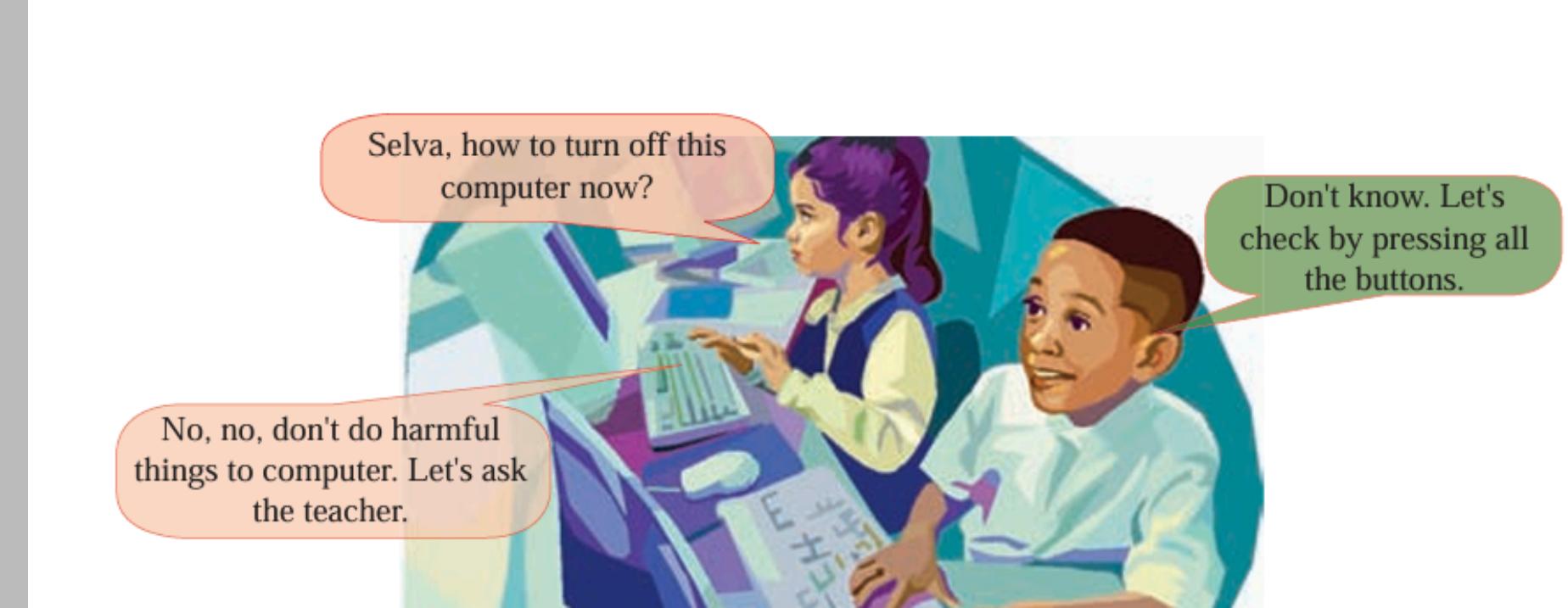


4

Finally, the monitor should be turned on.



# How to shut down the computer?



**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.**

# Computer Ethics

Computer ethics are a set of rules and good practices that guide how we should use computers properly. They help us become responsible computer users.

We must:

1. Use computers without disturbing others.
2. Avoid copying others' work or using pirated software.
3. Not misuse software or damage equipment.
4. Use the internet carefully and avoid harmful sites.
5. Follow the teacher's and school's computer lab rules.



Following computer ethics helps us use technology safely, respectfully, and responsibly

## 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.

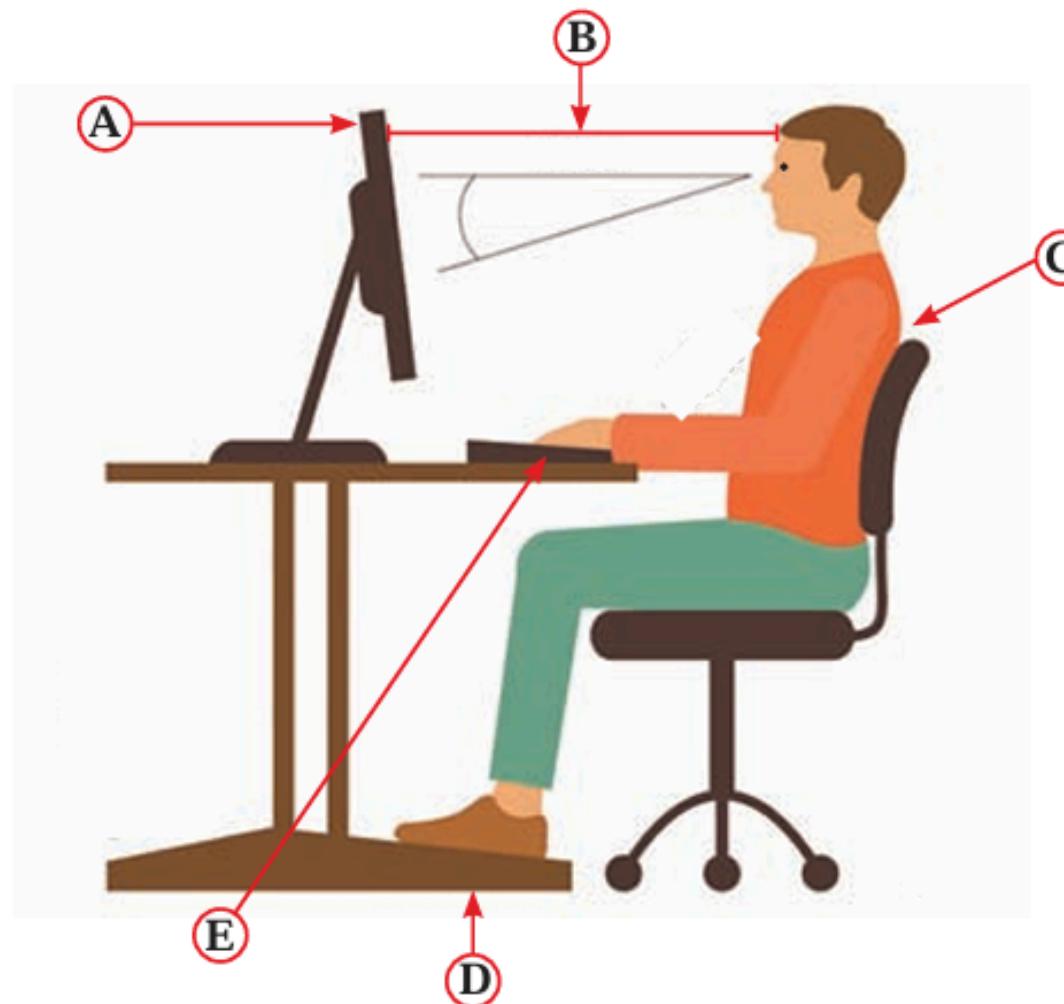
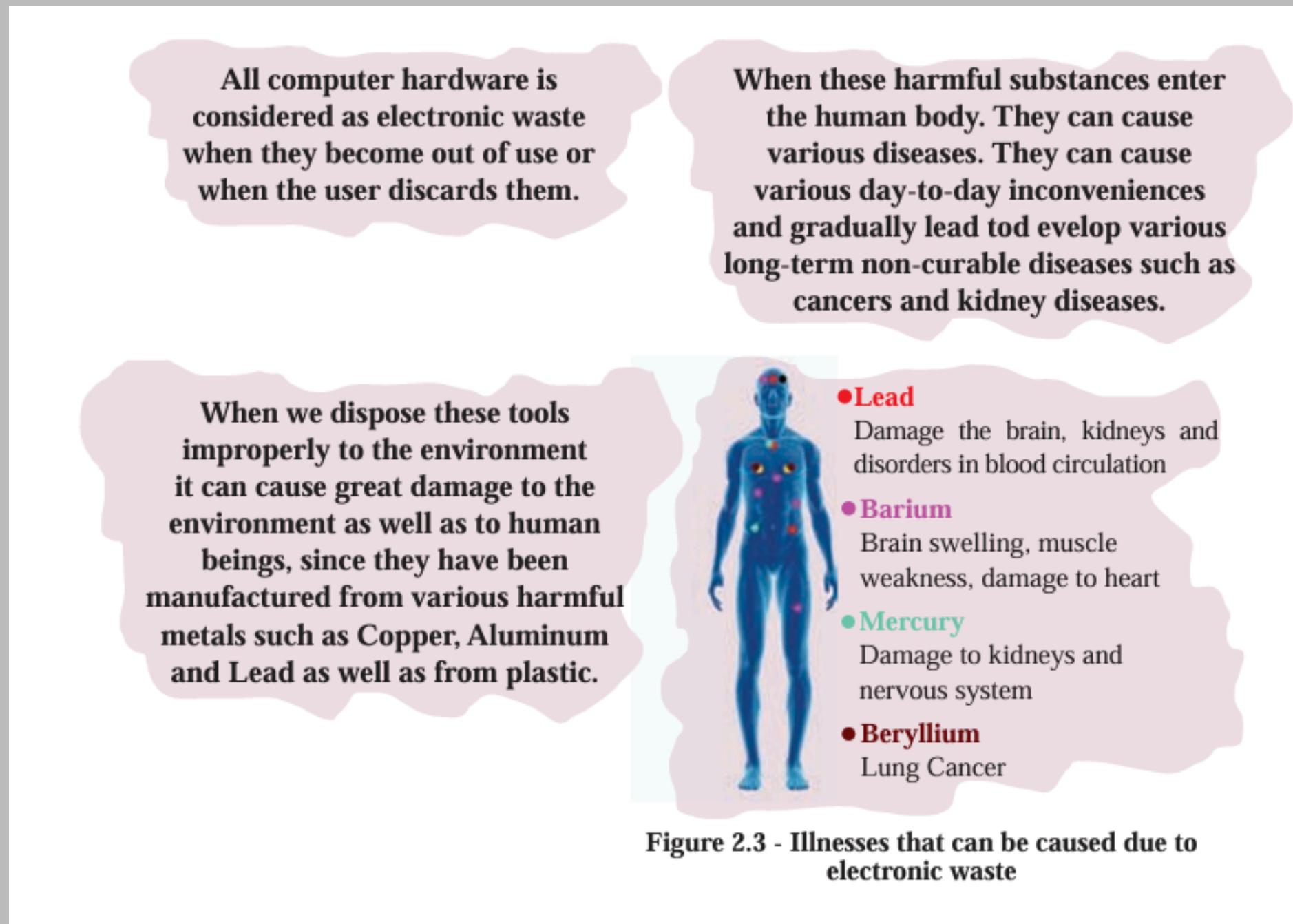


Figure 2.2 - Maintaining a Correct Posture when using a Computer

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 computer screen's brightness and contrast to protect your eyes. Take breaks if you work for long periods. Incorrect posture can cause health problems, so use the computer properly to stay healthy.

## **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.

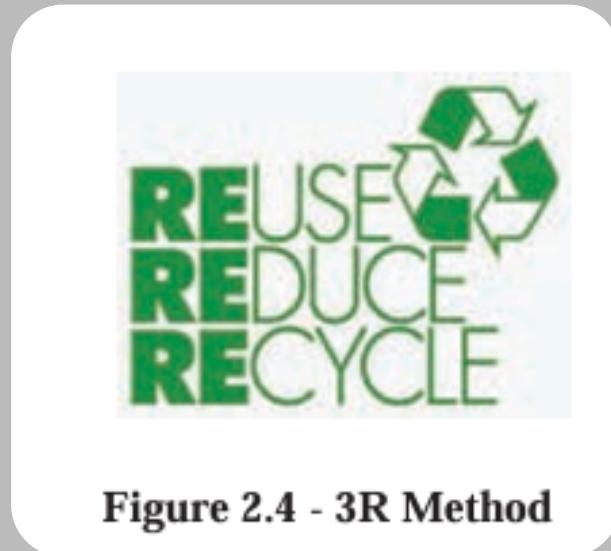
**•Lead**  
Damage the brain, kidneys and disorders in blood circulation

**•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**

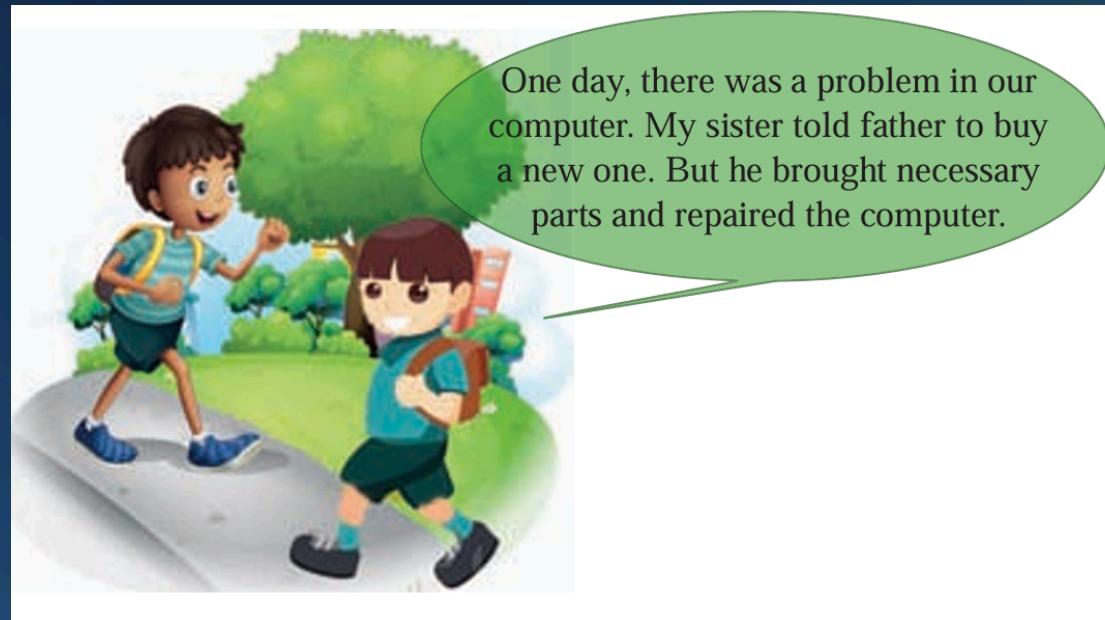


**Figure 2.4 - 3R Method**

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

## 1' Reduce

If we maintain our existing computer equipment properly, we can use it for a long time without frequent upgrades. This helps reduce electronic waste and protects the environment.



One day, there was a problem in our computer. My sister told father to buy a new one. But he brought necessary parts and repaired the computer.

## 2. Reuse

Instead of throwing away old but working equipment, we can donate or sell them when buying new ones. This helps reuse devices and reduces waste.

If old computer equipment is not working, it can be used for other purposes, such as turning a monitor into a flower pot or a system unit casing into a garbage bin. This helps reduce environmental waste.



## 3' Recycle

If computer equipment cannot be repaired or reused, it should be recycled instead of thrown away. Recycling involves breaking down waste into smaller parts and using machines to create new products, helping to reduce environmental pollution.

## Let's use Passwords to protect Computers

- Computers should be safeguarded physically as well as logically.
- Just like a key opens a door, a password protects the computer. A password is a secret word used to prevent outsiders from accessing the computer. If the correct password is not entered, access is denied.



### 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.

# QUESTIONS

1. What does “Reduce” mean?
  2. How can we use our equipment for a long time?
  3. What did the father do when the computer had a problem?
  4. How does reducing help the environment?
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1. What can you do with an old computer that still works?
  2. What can you do with an old monitor that doesn’t work?
  3. Give one example of reusing computer parts.
  4. How does reusing help the environment?
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1. What should we do with equipment that cannot be reused?
  2. What is recycling?
  3. Who should we give old computer parts to for recycling?
  4. How does recycling protect the environment?

# THANK YOU

Thank you for your attention!