

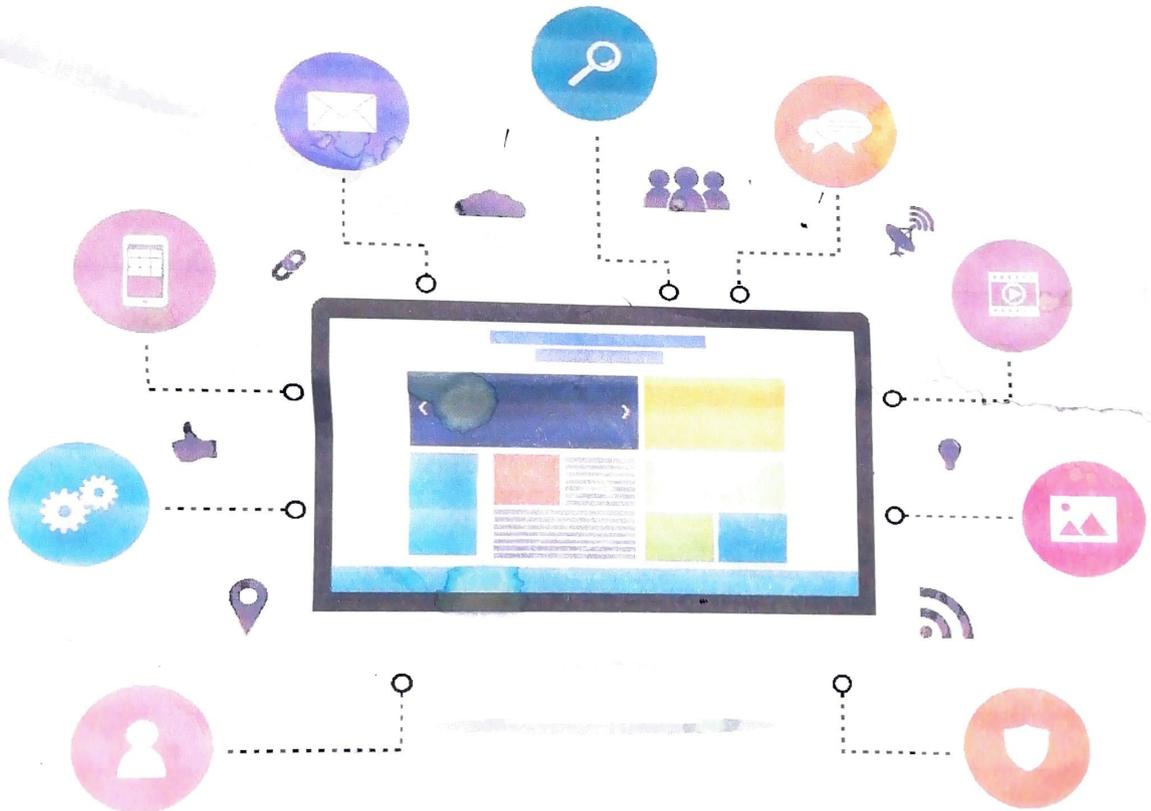


Class 6

Uses of Computers

aim!

In this lesson you will learn
a few simple and interesting
uses of a Computer



1. Library

A library stores many books. Searching for your favourite book can take a lot of time. So, the library uses a computer to store a list of books and their location. When you want to borrow a book, the librarian can check the computer to see if it is available. Then he can tell you where to find it. He also uses the computer to issue the book to you.



2. Bank

Many people use a bank to keep their money safe. The bank uses a computer to store a list of people and their accounts. When your parents want money to buy something, they go to the bank. The clerk checks on the computer to see if they have enough money in their account. Then the clerk gives the money to your parents.



3. Railway Station

Railways use computers to book tickets. They also use them to maintain train timings. When you go with your parents to book tickets, the clerk uses the computer to see if seats are available. Then he takes the money and issues your tickets.



Student: Ok, but how can children use a computer?

Sir: Let us see some simple tasks that you can do using a computer.



You can watch cartoons and movies.

You can draw a picture.



You can listen to music.

You can write a letter to your grandparents.



You can create a greeting card for your friend.



Sir: In our daily life we use machines like television, radio, mixer, washing machine, music system, telephone etc. A computer can also do the work of some of these machines.



? A Television is used to watch movies. Can you watch movies on a Computer?

Yes, you can!



? Student is drawing on a paper. Can he also draw using a computer?

Yes, he can!



? The music system is playing a song. Can you play a song on a computer?

Yes, you can!



Student: Oh, the computer is very clever. Can it do everything?

Sir: A computer can help you do several things. But there are also many things that it cannot do.

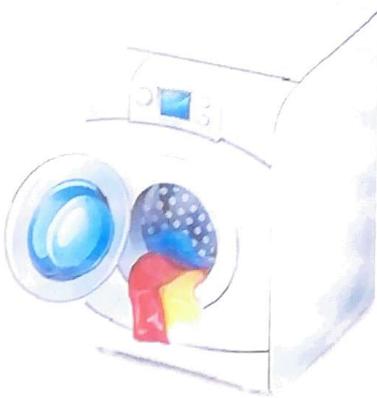


You can use a fridge to keep food items.
Can a computer be used like a fridge?

No, it cannot!

You can make fresh fruit juice in your mixer.
Can a computer be used like a mixer?

No, it cannot!



You can wash clothes in your washing machine.
Can a computer be used like a washing machine?

No, it cannot!

Student: Why are there so many wires around the computer?

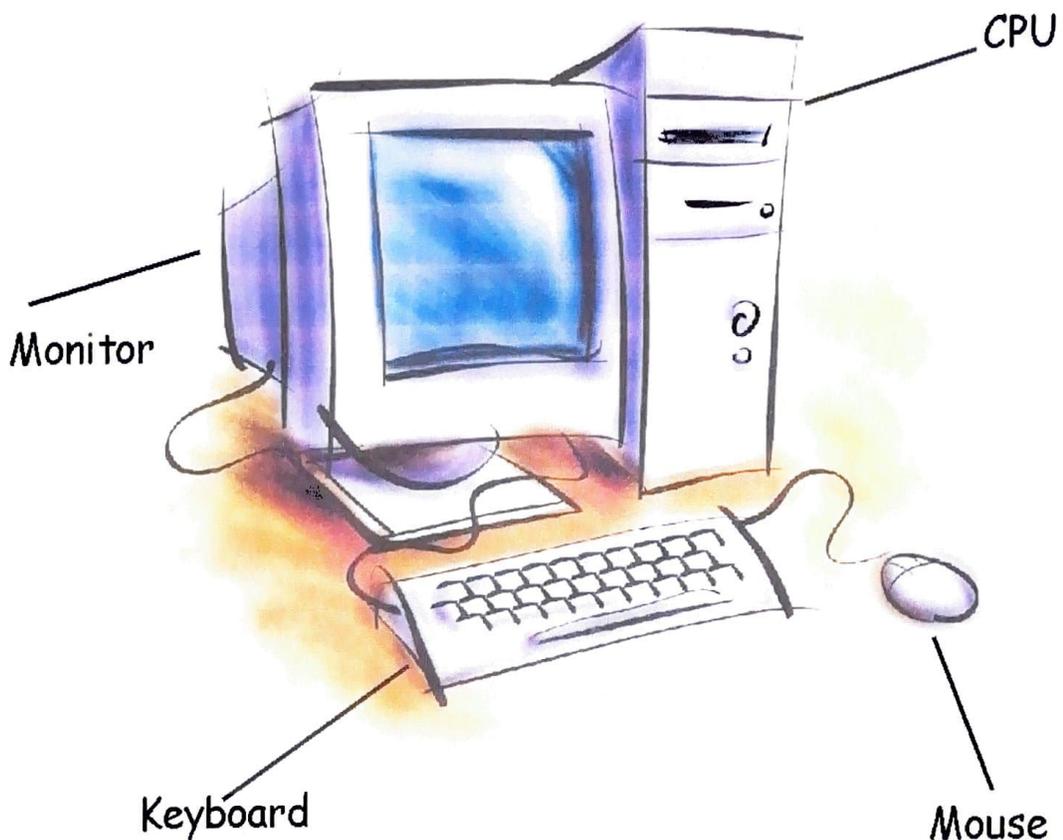
Sir: We will talk about it when we meet next. Goodbye for now.



Parts of A Computers

aim!

In this lesson you will learn about the main parts of a computer.



The names of the four most important parts are - **CPU, Monitor, Keyboard and Mouse.**

- Why does a computer need so many parts?
- What do they do?
- How are they connected?

Sir: Good questions! Let us learn about each of these parts.

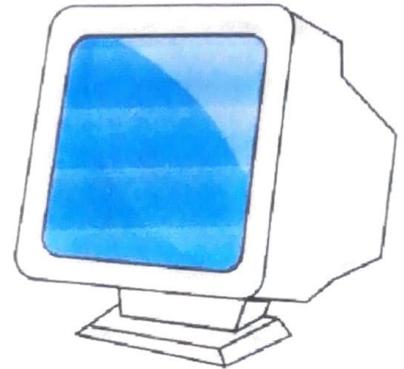


CPU

CPU (central processing unit) is the most important part of a computer. It is like the brain of computer. It does all the tasks that we want the computer to do. It also controls all the other parts, like the Monitor, Keyboard and Mouse. These parts have to be connected to the CPU, for them to work.

Monitor

A monitor looks like a TV screen. The CPU uses the monitor to show us photos, movies and games. The front portion of the monitor is called the screen, or display.



Keyboard

The keyboard is made of several small buttons called keys. Each key has a number or letter or symbol written on it. Just as you use a pencil to write on a paper, you can use a keyboard to write on a computer.





Mouse

A mouse is used to point at items shown on the monitor. The mouse usually has two or three buttons and a small wheel between the buttons.

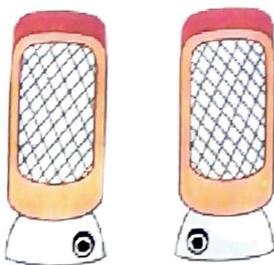
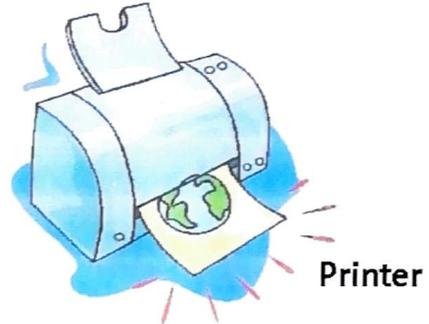
Student: You said that we can draw pictures using the computer. Can I use a mouse for drawing? How can I take the picture home?

Sir: Yes! You can use the mouse to draw pictures. But, you need a Printer to print your picture and take it home.

Student: You said that we can listen to songs on the computer. From which of these parts do we hear the song?

Sir: Not from any of these parts. We need Speakers to listen to songs. Remember, the speakers, printer or any other part will work only if they are connected to the CPU.

Student picks up the computer mouse and starts playing with it.



Speaker

Student: What are these buttons for?

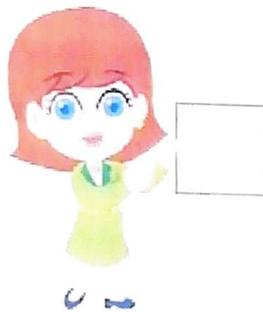
Sir: Be careful! We must take proper care of the different computer parts. Tomorrow we will learn how to do this and then we will learn about the buttons.



Input and Output Devices

aim!

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



Dear Students now I will explain you input and output processes of a computer with examples. A plant takes in water and gives flowers. Taking in is called Input. Giving out is called Output. Water is the input and flowers are the output for the plant. Can you give an example of an input and an output for a computer?



Student: When I draw using a mouse, the drawing actions are the input. When the computer prints the drawing, the printout is the output.

Sir: Correct. What did you use to give the command to print?

Student: The mouse. I clicked on the print icon.

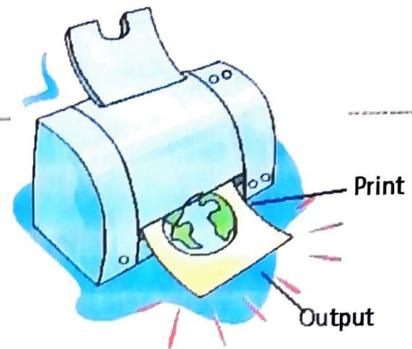
Sir: The command given using the mouse is an input. So the mouse is an input device.

Concepts

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

Sir: From which device did you get the output?

Student: Printer! So the printer must be an output device.



Concepts

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

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

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

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

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

Sir: [plays a song on the computer]:

Now tell me what is the input and output?

Student: The song that we hear is the output.

Student: We hear the songs from the speakers. So speakers are output devices.

Sir: Correct. What about the input?

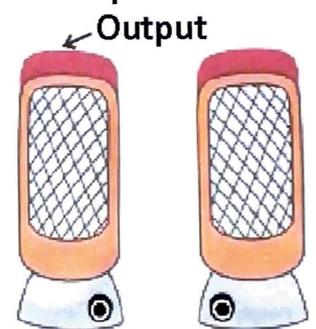
Student: You clicked on the song icon using the mouse. This clicking is the input.

Student: So the mouse is the input device.

Student: During the holidays, I saw a movie on the computer.

The picture was on the monitor and the sound came through the speakers. That means, both the monitor and the speakers were giving the output at the same time!

Sir: You are right.





Computers and Your Health

aim!

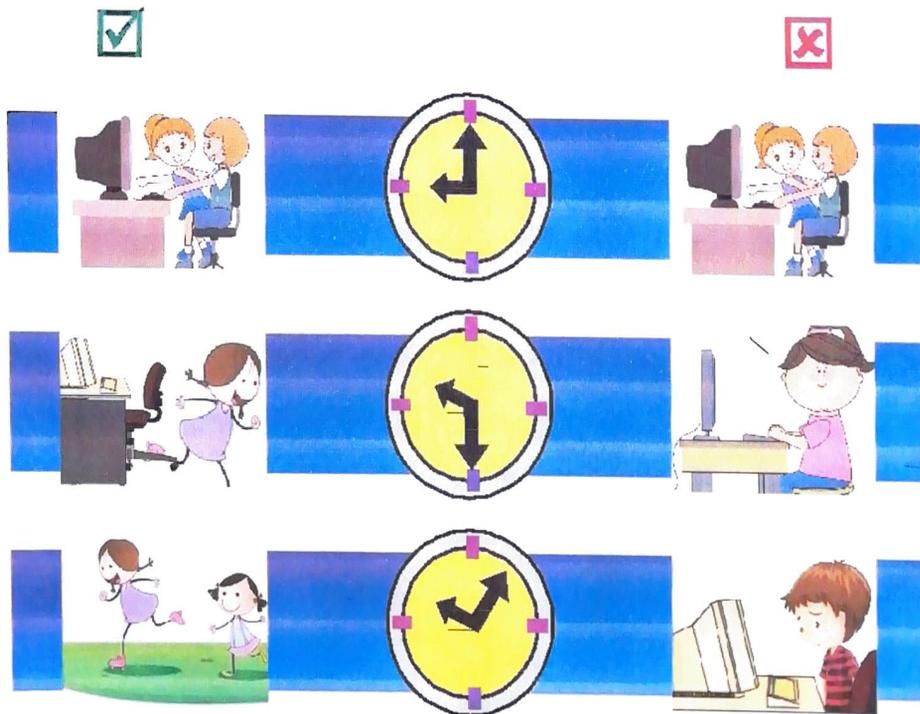
In this lesson you will learn:

Precautions to be taken while using a computer.

Correct posture while using computers.

Exercises for physical fitness.

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



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

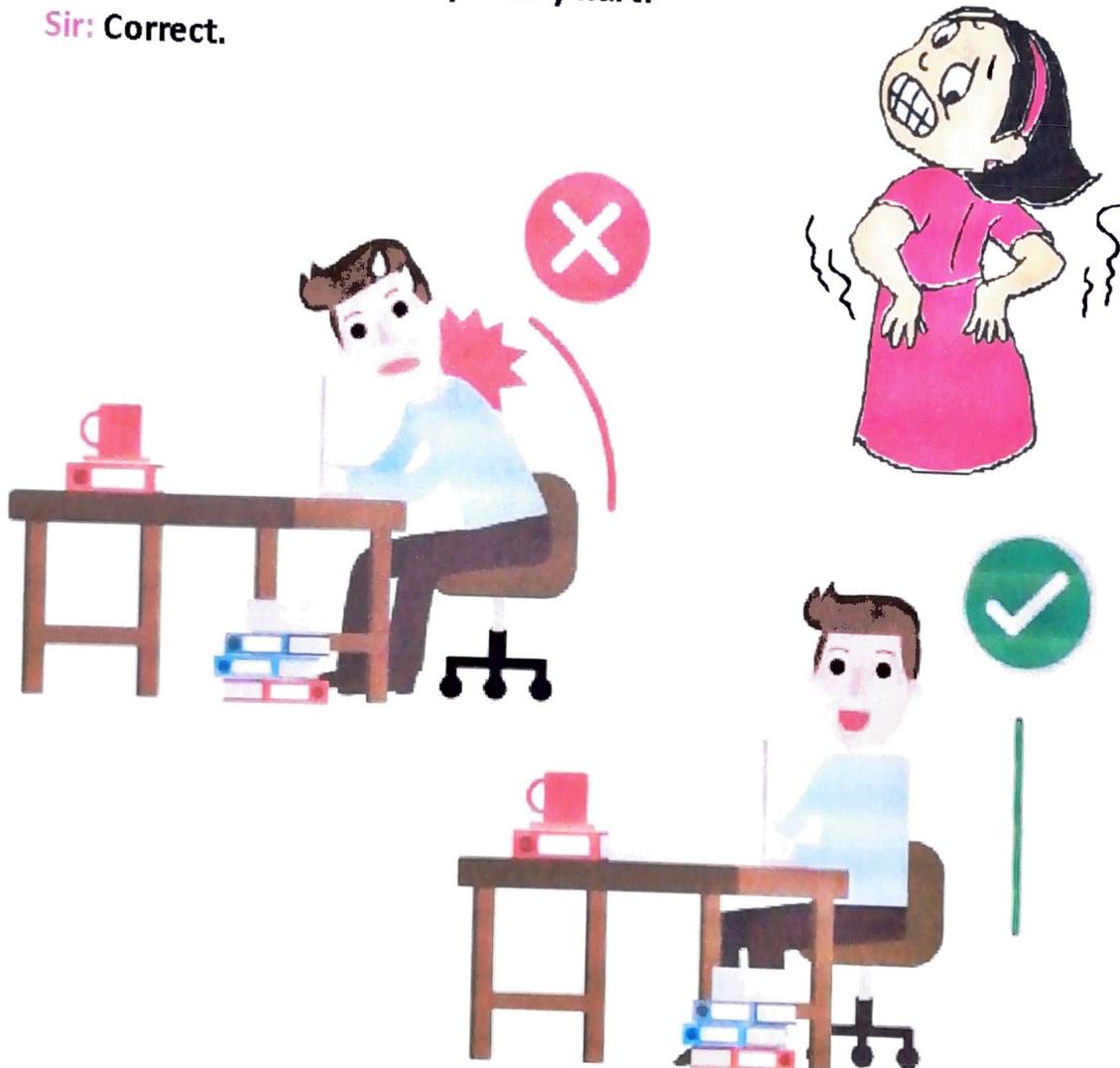
Posture and Exercises:

Sir: What happens if we do not maintain a good posture?

Student: We can get body aches if we do not sit straight.

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

Sir: Correct.



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

Posture to be maintained while using the computer:

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

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



Exercises to do before using the computer:

Yogasanas for shoulders, hands, neck and eyes.

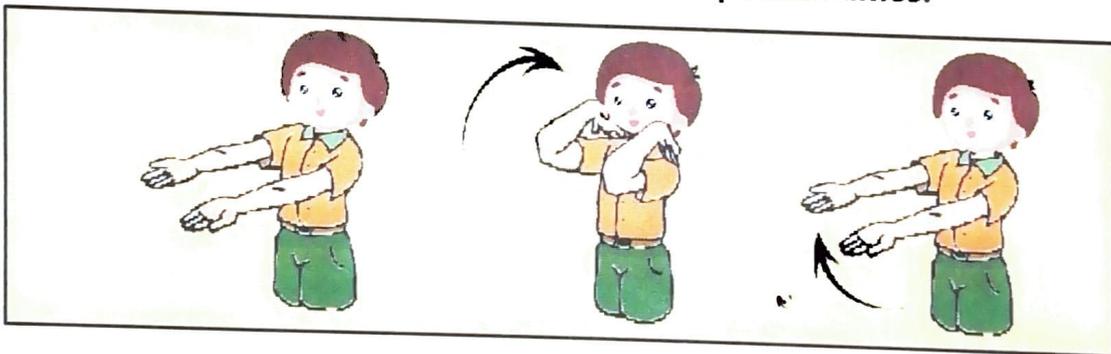
Sit in a ventilated room with fresh air. Sit in a cross legged pose with a straight back to do the exercises. If there isn't enough space to sit, you can do them standing.



Yoga exercise for the shoulders: (Kehuni Naman elbow bending)

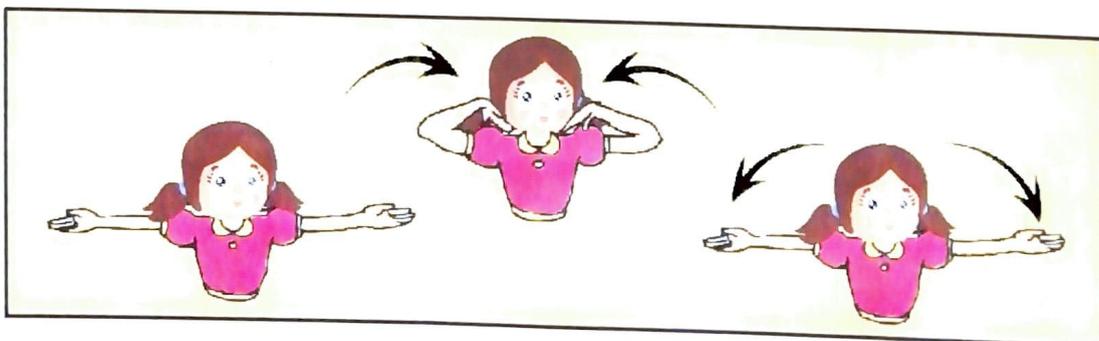
Exercise 1:

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



Exercise 2:

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

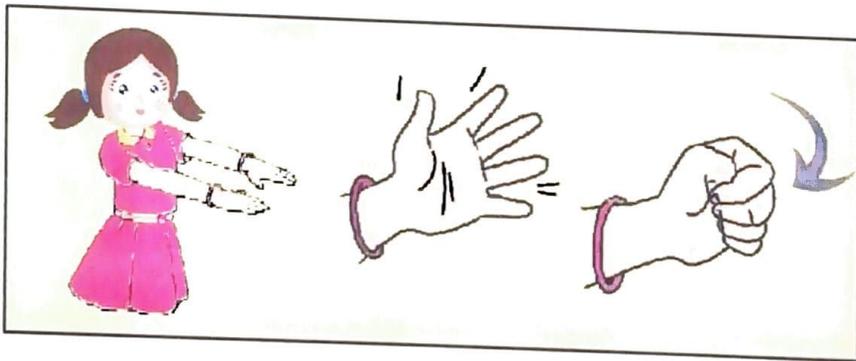


Note: Inhale while straightening the arms and exhale while bending the arm. The upper arms should remain parallel to the floor and the elbows held at the shoulder level, throughout the exercise.

Yoga exercise for hands: Mushtika Bandhana (hand clenching)

Exercise 1:

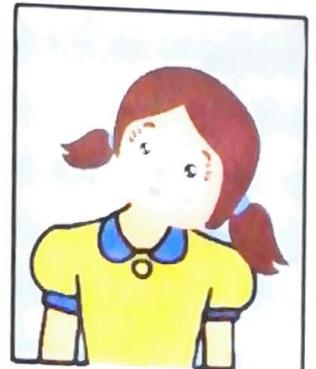
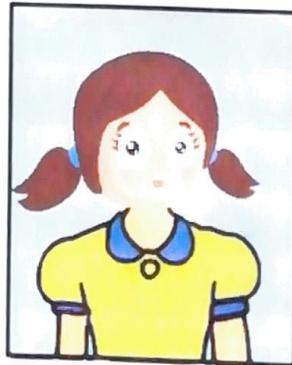
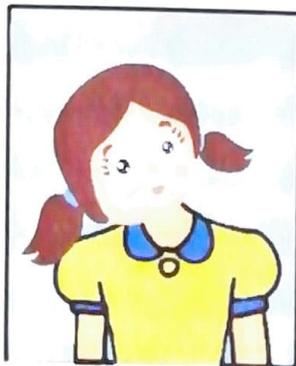
1. Hold both arms straight in front of the body at shoulder level.
2. Open your hands, palms down, and stretch your fingers far apart from each other as much as possible.
3. Close your fingers to make a tight fist with the thumbs inside. The fingers should be slowly wrapped around the thumbs.
4. Again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



Yoga exercises for neck: Greeva sanchalana (Neck movements)

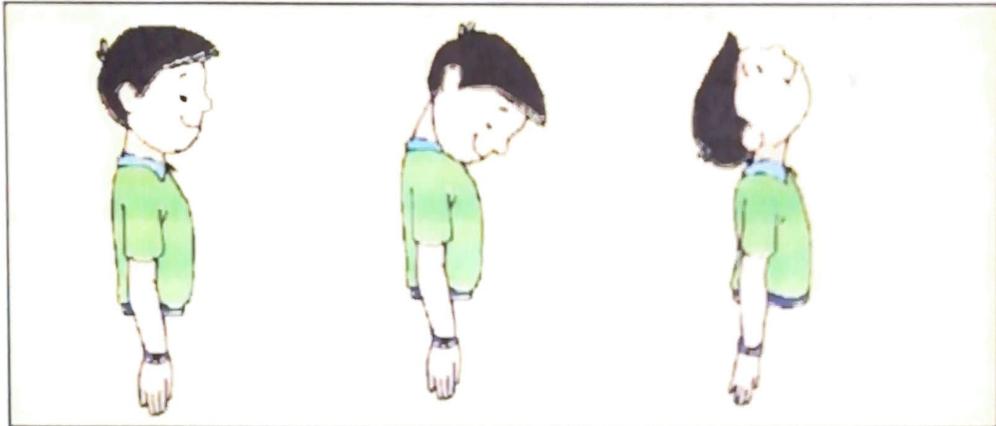
Exercise 1:

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



Exercise 2:

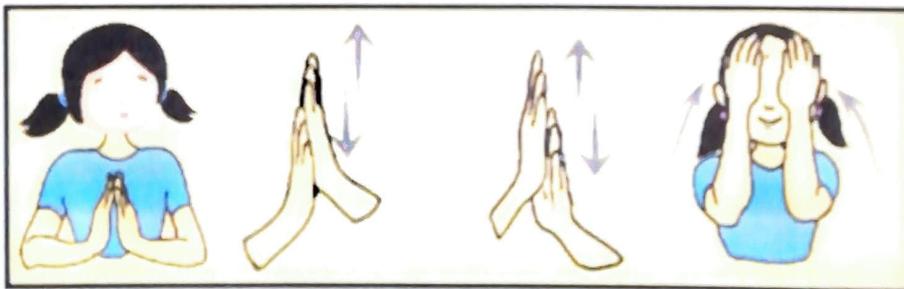
1. Face directly forward and close your eyes.
2. Slowly move the head forward. Try to touch your chin to the chest.
3. Move your head as far back as is comfortable. Do not strain your neck.
4. This is one round. Practice 10 rounds.

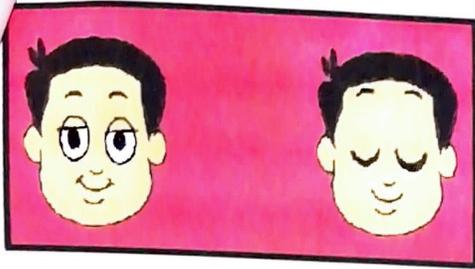


Yoga exercises for the eyes:

Exercise 1: Palming

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



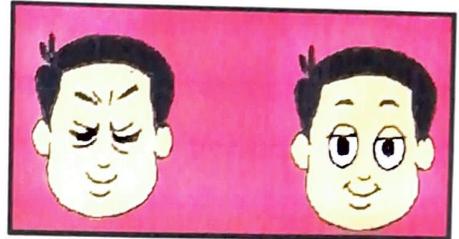


Exercise 2 - Blinking:

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

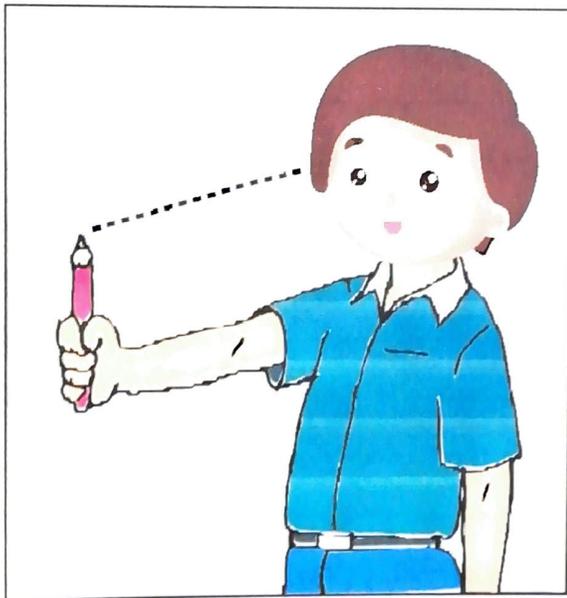
Exercise 3 - Be a Cat:

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



Exercise 4 - Pencil exercise:

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



Exercise 5:

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



Student: We enjoyed doing the exercises.
We have learned some of these exercises in the yoga class.

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



Using a Mouse



In this lesson you will learn how to use a computer Mouse.



Dear Students do you know how to select file on computer? Let me explain you .

We already know that a mouse is used to point at items shown on the monitor. When we move the mouse around, the arrow on the screen also moves around.

The arrow is called the mouse pointer. The mouse is usually kept on a flat surface called the mouse pad.

Pressing the button is called a click. There are two buttons on the mouse. The button on the left hand side is called the left button. The button on the right hand side is called the right button. Clicking these buttons tells the computer what to do.



There are three types of mouse clicks:

Left Click:
Click the left button once. This is used to select an activity after you point to it.



Double Click:
Click the left button twice, quickly. This is used to start the activity after you have pointed at it.



Right Click:
Click the right button once. This is used to control the activity after you have started it .



Student: To start a file, I have to first point to the file and select it by left click. Then I have to double click for it to open. Am I correct?

Sir: Very good. You are correct.

Student now moves the mouse to select the file. While moving, the mouse reaches the end of the mouse pad.

Student: The mouse pointer is gone. Where is the arrow?

Sir: When you reach the end of the pad, lift the mouse and place it back in the center.

Student: Yes. The pointer is back on the screen. Wow! This is fun. What is this wheel like button on the mouse?

Sir: I will show you.

[Sir opens a list of names on the screen.]



Student: These are the names of all our friends in the class! Where is my name?

Sir: Move the wheel and see what happens. Your name will be down below. The wheel between the left and right mouse buttons is called the scroll button. You can move up and down a page using the scroll button.



Student: Can I write my name on the screen?

Sir: Yes. You can.

Tomorrow I will show you how.

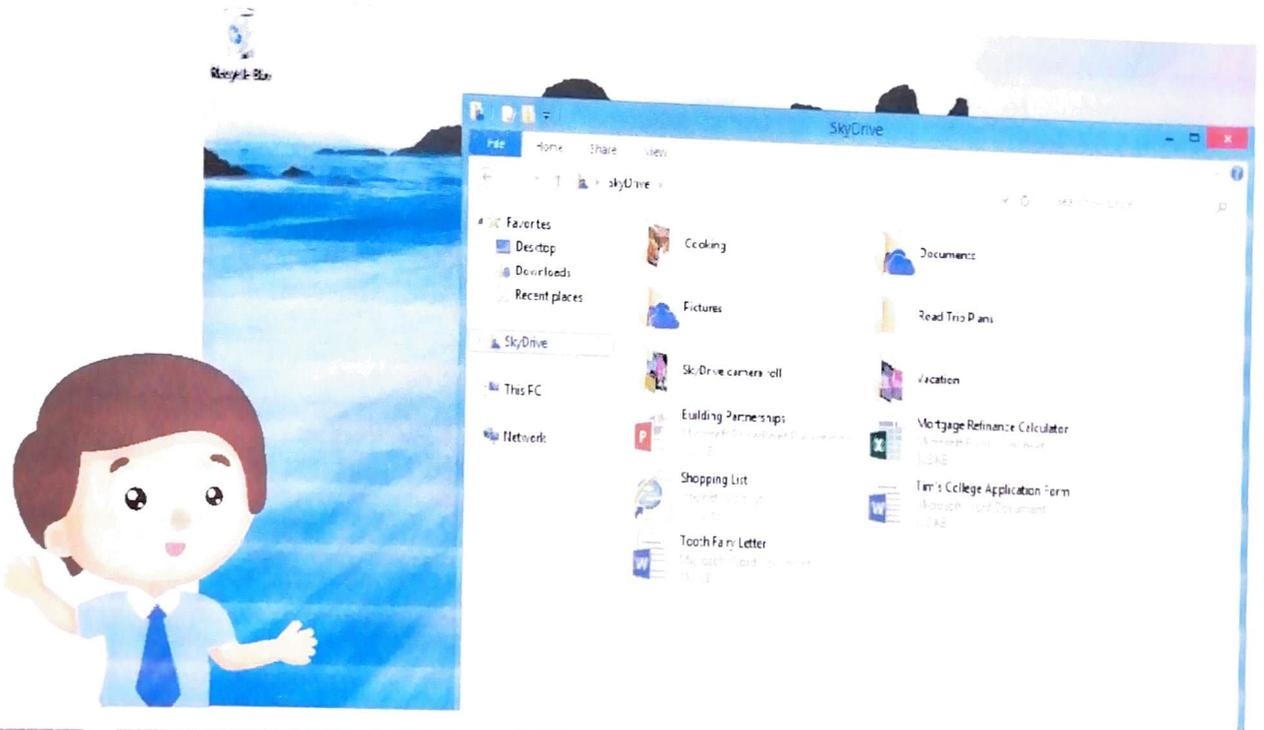


Activities Using a Mouse



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

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



Student: When we double click on this icon it opens a window. What is this icon for?

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



Sir: On a computer, files are used to store songs, pictures, etc. Files can be organized and saved in different folders.

Concepts

Files are used to store songs, pictures, etc.

Folders help us by:

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

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

Sir: Yes, you can. First create a new folder and name it. The name should indicate what type of files we want to keep in the folder.

Student: I know we can use the mouse to create a folder, but how?

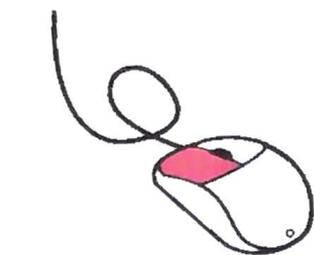
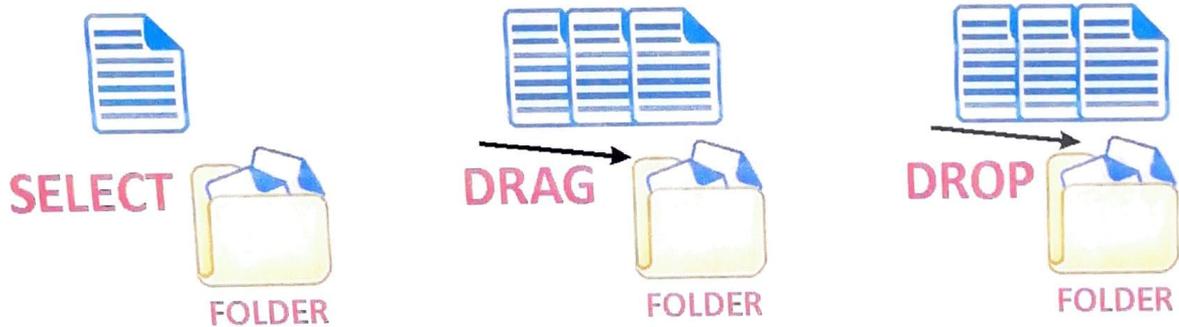
Creating a folder

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

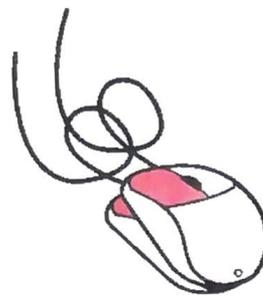
Sir: Similarly, to move files into a folder you can use the mouse. First select a file, then move the file using the mouse to the folder in which you want to put it and drop it in the folder.



Moving files into a folder
Using Drag and Drop



1 Click the left mouse button down



2 Move or drag the mouse pointer to the folder



3 Release the mouse

Drag and Drop

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



Student: The file is inside the folder!

I can see the file when I open the folder with a double click.

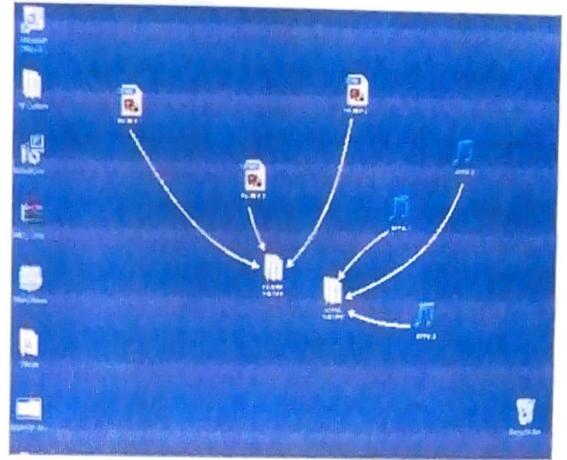
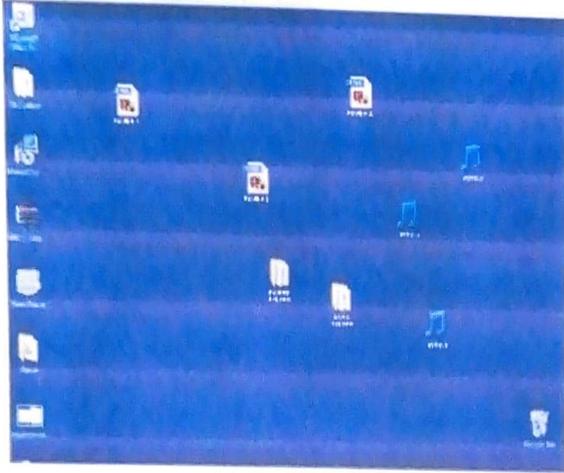
Student: This is good. Can I move my folder to a different position on the desktop?

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

Reorganizing icons on a desktop

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

Students organise the files and rearrange the desktop as shown below.



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

Student: I want to enter my poems.

Sir: Ok. Tomorrow you can use the text editor to create the text files.