

LESSON PLAN

Touchpad MODULAR Ver 2.0
Class-8

1. Computer Networking

Teaching Objectives

Students will learn about

- Computer Network
- Advantages of Computer Network
- Components Required for a Network
- Topology
- Wireless Networking Technology
- Need for Computer Network
- Network Terminology
- Types of Network
- Network Architecture
- Protocol

Number of Periods

Theory

2

Practical

1

Teaching Plan

While teaching this chapter, tell the students that the process of connecting computers and peripheral devices with each other to exchange data is called computer networking.

Tell the students about the meaning and basics of computer network.

Share with the students the need for computer network – for resource sharing and for communication.

Discuss with the students the advantages of a computer network.

Introduce network terminologies like Server (host computer) and Client (dependent on server) to the students.

Tell the students about the components required for a network covering NIC, hub/switch, router, modem and networking cable.

Share with the students that on the basis of geographical area covered, the networks can be classified into LAN (Local Area Network), MAN (Metropolitan Area Network), WAN (Wide Area Network), PAN (Personal Area Network) and CAN (Campus Area Network).

Introduce that Topology is a geometric arrangement of computers or nodes in a network to the students.

Explain the five different types of topologies covering bus topology, ring topology, star topology, tree topology and mesh topology (Refer Suggested Activity also).

Tell the students that the network architecture defines the overall design of the computer network.

Share with the students the two types of network architectures such as Peer-to-Peer network and Client-Server network.



Share with the students about the wireless networking technologies detailing about Wi-Fi and Bluetooth.

Introduce Protocol as a set of rules that govern the communication between the computers on a network.

Discuss briefly about the different types of protocols explaining about HTTP, HTTPS, FTP, TC/IP, POP3, IMAP and SMTP.

Ensure that the scope of Teacher's Corner given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. Define computer network.

Q. What is the need for a computer network?

Q. What are the advantages of a computer network?

Q. Define server and client.

Q. What are the different types of computer servers?

Q. What are the components required for a network?

Q. Define the terms:

- LAN
- MAN
- WAN
- PAN
- CAN

Q. Define Topology.

Q. Explain different types of topologies.

Q. What do you meant by protocol?

Encourage the students to walk through the chapter and ask them to explain any one topic from the chapter.

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 13 and 14 of the main course book as **Exercise**.

Take the students to the computer lab and let them practice the activity given in **In the Lab** section on Page 14 in the main course book. This will enhance the abilities of the students and serve as a subject enrichment activity.

Suggested Activity

Ask the students to make models of different types of topologies using marbles and used wire pieces / straws.



2. Windows–Photos and Video Editor

Teaching Objectives

Students will learn about

- ✎ Photo Editing
- ✎ Video Editing

Number of Periods

Theory

2

Practical

2

Teaching Plan

While teaching this chapter, tell the students about new apps like photos in Windows 10.

Introduce the students to Photo Editing.

Teach the students how to start Photos App and to open a photo for editing.

Demonstrate to the students the method of cropping, rotating and flipping photos in Photos App.

Demonstrate to the students how to apply filters to a photo.

Tell them that In Photos App, we can also adjust brightness and contrast by using the Adjustments feature.

Demonstrate the steps to open a video file for editing.

Explain to the students the process of adding title card with text to a video.

Further tell them that how to trim the videos using the trim button.

Also demonstrate the steps to add 3D effects in a video.

Activity can be created on the photo editing and take two printouts before and after editing and display them in front of the class to demonstrate the difference between original photo and edited photo.

Tell them the various steps involved in editing a photo and video.

Ensure that the scope of Teacher's Corner given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

- Q. What is editing?
- Q. What is the use of editing?
- Q. How is photo different from a video?
- Q. Name some photo editing apps.
- Q. What is the difference between brightness and contrast?
- Q. What do you mean by video editing?
- Q. What is cropping?
- Q. What is rotating?
- Q. What is flipping?



- Q. What is a filter?
- Q. What is trimming?
- Q. What are 3D effects?

Encourage the students to walk through the chapter and ask them to explain any one topic from the chapter.

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 22 and 23 of the main course book as **Exercise**.

Take the students to the computer lab and let them practice the activity given in **In the Lab** section on Page 23 in the main course book. This will enhance the abilities of the students and serve as a subject enrichment activity.

Suggested Activity

Ask the students to prepare a word document on major differences between photo and video editing and take print out on an A4 sheet of paper.

3. Introduction to GIMP

Teaching Objectives

Students will learn about

- ☞ Features of GIMP
- ☞ Components of GIMP Window
- ☞ Opening an Image for Editing
- ☞ Starting GIMP
- ☞ Creating a New File
- ☞ Saving a File

Number of Periods

Theory

2

Practical

3

Teaching Plan

While teaching this chapter, tell the students that GIMP is a free open-source graphics software used for image creation and editing.

Explain the features of GIMP to the students.

Demonstrate to the students the steps to start GIMP.

Familiarize the students with the components of GIMP covering Menu Bar, Toolbox, Foreground/Background colors, Tool options, Image window, Ruler, Layers Palette and Brushes/Patterns/Fonts tab.

Demonstrate to the students how to create a new file in GIMP.

Show to the students the steps involved in opening an image for editing.



Tell the students the process to:

- Save a file.

Ensure that the scope of Teacher's Corner given at the end of the chapter has been covered.

Ask the students to read the **Clickipedia** given on page 27.

Extension

Ask the students some oral questions based on this chapter.

- Q. What is GIMP?
- Q. Name the various components of GIMP Window..
- Q. State the features of GIMP.
- Q. What is a template?
- Q. Which button is used to open a file?
- Q. What extension does the GIMP add to a file when we save it?

Encourage the students to walk through the chapter and ask them to explain any one topic from the chapter.

Also, ask them to solve Worksheet 1 given on page 24.

Evaluation

After explaining the chapter, let the students do the exercises given on Pages 28 and 29 in the main course book as **Exercise**.

Take the students to the computer lab and let them practice the activity given in **In the Lab** section on Page 29 in the main course book. This will enhance the abilities of the students and serve as a subject enrichment activity.

Suggested Activity

Ask the students to draw a similar drawing in GIMP using various tools from the toolbar.