Topic 1: Computers – Storage and Memory device

A Computer system is a highly organised system that processes data which is a representation of facts, concepts or instructions. Processed data become information on which decisions and actions are based. Bits and Bytes are the basic units to represent data in the computer system. Computer data storage often called storage or memory is a technology used to retain digital data internally or externally. There are two types of memory – Internal and External.

Learning Outcomes:

Children will be able to:

- differentiate between the terms data and information;
- explain the purpose of internal and external memory;
- describe different data storage units;
- list the primary and secondary data storage devices.

Computers – Storage and Memory device		
Key Concepts	**Suggested Transactional Processes**	**Suggested Learning Resources**
▶ Data vs Information ▶ Data storage units-basic facts ▶ Internal and External memory ▶ Primary and Secondary Storage Devices	▶ Discussing about data and information related to real-life scenario by using a computer. ▶ Explaining the concept of memory and its capacity related to the size of the storage devices. ▶ Introducing the basic concepts of bits and bytes. Relating the units to digital system (ON and OFF). ▶ Providing opportunities for hands on practice to the children through online Worksheets	▶ Physical memory devices/ visuals using IWB. ▶ Online Worksheets ▶ Online computer experiences.

Life Skills: General awareness

Topic 2: GUI Operating System – Desktop Management

The Graphical User Interface (GUI) operating system has a visual environment using windows, buttons, and icons. Using this interface, user can customise the wallpaper, screen/desktop, set time/date, etc.

Learning Outcomes:

Children will be able to:

- ☑ recall the features of OS and GUI;
- ☑ identify and use the Task Bar, Quick Launch Bar and short cut menu;
- ☑ customize the windows setup.

GUI Operating System – Desktop Management		
Key Concepts	**Suggested Transactional Processes**	**Suggested Learning Resources**
▶ Recapitulation of the Topic done in previous class. ▶ Usage of Quick Launch Bar, Task Bar ▶ Setting Date, time and volume of the speaker. ▶ Use of shortcut menu	▶ Conducting activities to: ▶ Explaining the use of different task bars and customizing windows. ▶ Observing children work responsibly on the windows set up and providing a timely feedback.	▶ Computer / IWB with GUI operating system. ▶ Hands on experiences ▶ Worksheet analysis by teacher.

Life Skills: General Awareness

Topic 3: Tools of Word Processor

Editing tools present in the word processing software are used to modify documents while Formatting tools are used to design how each page of the document will appear when it is printed. The printer is an output device (hardware) connected to the computer, that enables the user to take a hard copy of the files stored in the internal/external storage devices.

Learning Outcomes:

Children will be able to:

- ☑ use various features of editing and formatting;
- ☑ use shortcut keys;
- ☑ prepare a document based on their requirement;
- ☑ preview and print a document.

Tools of Word Processor		
Key Concepts	**Suggested Transactional Processes**	**Suggested Learning Resources**
▶ Editing a document ▶ using Undo and redo commands ▶ checking spelling and grammar ▶ describing the purpose of using Thesaurus ▶ Formatting a document ▶ Font: Font size, colour, bold, italics and underline ▶ changing text alignment ▶ changing line spacing and paragraph spacing. ▶ Shortcut keys ▶ Using a printer for printing and print preview	▶ Recapitulation of the activities done in previous class. ▶ Review of the features done previously. ▶ Demonstrating various tools related to Editing and Formatting ▶ Providing opportunities through hands-on-experience to each child /in groups on the computer/s by: ▶ showing sample documents, to prepare required documents using the features learnt ▶ discussing in detail the difference between editing and formatting. ▶ demonstrating the use of print preview and the steps for printing the document. ▶ explaining the use of shortcut keys. ▶ Children doing all the above.	▶ Computer/IWB with a word processor software. ▶ Printer ▶ Hands on experiences – to work on computer

Life Skills: General awareness, Creative thinking, Decision making, Collaborative learning, presentation skills
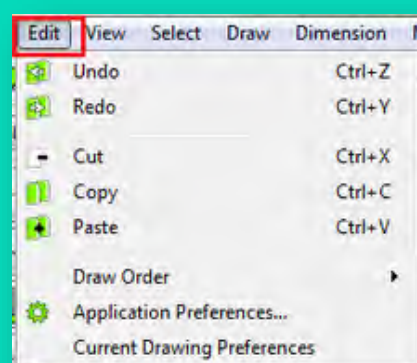
Topic 4: The Internet - Web Browser

A web browser is a software which enables the user to interact with text, images, videos, music, and other information present on the internet.
The Search Engine is a software that is used to search information on the Internet. While searching for information using Search Engines, the user has to use the appropriate keywords. It is important to be more responsible and follow Netiquettes for safe browsing on the internet.

Learning Outcomes:

Children will be able to:

- ☑ label the parts of a browser window;
- ☑ define the terminologies related to Internet Network;
- ☑ use appropriate keywords to collect information;
- ☑ make responsible decision while browsing.

The Internet - Web Browser		
Key Concepts	**Suggested Transactional Processes**	**Suggested Learning Resources**
⯈ Network in terms of Internet ⯈ Basic requirements for an Internet connection ⯈ Parts of a browser window (address bar, refresh button, favourite, history, home, stop, back and forward, new tab) ⯈ Related terms like www, URL, ISP, net surfing ⯈ Search engine	⯈ Recapitulation of previous learning on the Internet ⯈ Explaining: ⯈ the concept of Network through role play. ⯈ The parts of a browser window ⯈ terminologies ⯈ Discussing various search engines and how to use them. ⯈ Discussing usage of appropriate keywords to search information.	⯈ Computers/IWB with an internet connection ⯈ Worksheets

Life Skills: Work ethics, Decision making, Collaborative learning

Topic 5: Presentation Software – An Introduction

The presentation software is a software that enables the user to present information, graphics, videos, etc. through slide shows in an attractive way. This software ensures that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

- ☑ explain the purpose of presentation software;
- ☑ choose appropriate layouts according to the requirement;
- ☑ create, add text and images to the slide;
- ☑ navigate between the slides;
- ☑ present a slide show.

Presentation Software – An Introduction

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
▶ Introduction to presentation software and its purpose ▶ Opening and exiting a presentation software ▶ Components of a presentation software window. ▶ Concept of slides and its layouts ▶ Slide show presentation	▶ Discussing the importance of presentation software as a group activity. ▶ Demonstrating how to: 　☞ *Prepare layouts of slides and its uses according to the requirements.* 　☞ *create, save, and close a file* 　☞ *open and edit an existing file* 　☞ *insert a slide to a presentation* 　☞ *add of text and images to a presentation* ▶ Providing hands-on experience to children (individually /groups) for preparing a presentation on selected topics integrated with the curriculum/real-life scenario.	▶ Computers/IWB with presentation software.

Integration: Languages
Life Skills: Work ethics, Decision making, Collaborative learning, Creative thinking, Presentation skills
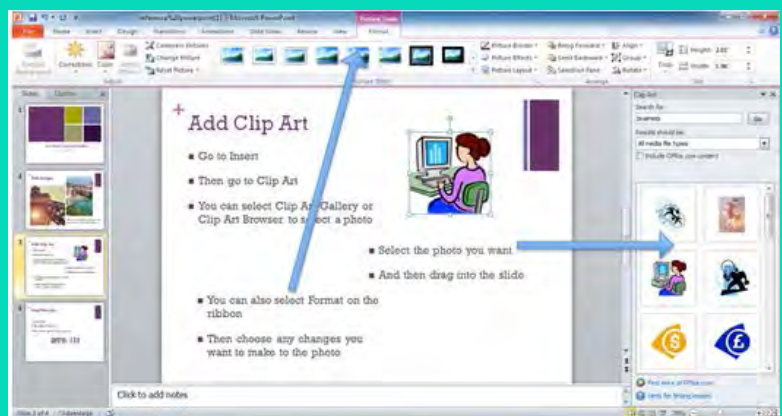
Topic 6: Step-Wise Thinking

Step-Wise Thinking helps in converting complicated tasks into simple steps, predicting the possible solutions to achieve the desired goal. For example – Planning and organising a birthday party, summer trip.

Learning Outcomes:

Children will be able to:

- ☑ analyse the task;
- ☑ break up the task into simple steps;
- ☑ predict possible solutions.

Step-Wise Thinking		
Key Concepts	**Suggested Transactional Processes**	**Suggested Learning Resources**
❯ Reasoning and problem solving – meaning ❯ Case studies	❯ Taking a real life scenario/ case study, to plan a task. ❯ Discussing with the children to break the task into small steps. ❯ Dividing the class into groups and assigning the same task to each group to find the solution. ❯ Suggested task could be - Planning for a picnic/a birthday party/visit to a park.	❯ IWB with presentation software ❯ Projector ❯ Case Study

Topic 7: Features of File Management

Folder is a location to store information in the computer. It is used to organize files and folders according to the user's requirements.

Learning Outcomes:

Children will be able to:

- ☑ copy and move a file/folder;
- ☑ rename and delete files and folders;
- ☑ Inculcate habits not to tamper others' files or folders.

Features of File Management		
Key Concepts	**Suggested Transactional Processes**	**Suggested Learning Resources**
❯ Copy and move a file/folder from one location to another ❯ Rename a file/folder ❯ Delete a file/folder. ❯ Not tampering with others' files/folders.	❯ Recollect the activities done in previous classes ❯ demonstrating different operations of file management, like copying, moving, renaming, deleting a file/folder.	❯ Computer / IWB

Life Skills: Work ethics