

COMPUTER STUDIES

Topic 1: Evolution of Computers

The evolution of computers started way back in the late 1930s and the first known device was Abacus. Based on the hardware, evolution of computers has been classified into five generations.

Learning Outcomes:

Children will be able to:

- ☑ describe the history of computers;
- ☑ state its characteristics and limitations;
- ☑ compare the generations of computers;
- ☑ keep pace with the latest developments related to technology.

Evolution of Computers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
➤ History of Computers ➤ Characteristics of computers ➤ Limitations of a computer	➤ Demonstrating the history of computers through presentations/ videos/ Interactive classes. ➤ Providing opportunities to discuss the characteristics and limitations of computers. ➤ Illustrating the latest technological developments by using pictures or showing videos. ➤ Facilitating a quiz game on all the key concepts either as a group or whole class activity.	➤ Computers/ IWB with presentation software. ➤ Videos ➤ Projector, etc.

Integration: Social Studies

Life Skills: Critical thinking,



Topic 2: Types of Software

A software is the programme that makes the physical computer perform specific tasks. Based on function and purpose, software is broadly classified into System and Application software.

Learning Outcomes:

Children will be able to:

- ☑ define the term software;
- ☑ explain the types of software and their purpose with examples;
- ☑ differentiate between system software and application software;
- ☑ backup files;
- ☑ scan the System/Drive/File;
- ☑ use defragmentation utility.

Types of Software		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
➤ Types of software ➤ System software ➤ Operation support system ➤ Utility software ➤ Application software ➤ General Purpose Application Software ➤ Customized Software ➤ Backup of files. ➤ Utility Programs like backup, scanning, defragmentation	➤ Build on previous experience ➤ Explaining the classification of software: ➤ Discussing the importance of different utility programs ➤ Providing opportunity for hands on activity in groups/individually to children to use utility software in Group / individual level activities.	➤ Computers/ IWB with utility software ➤ Videos ➤ Projector, etc.

Life Skills: General awareness, decision making, problem solving and responsible behaviour.



Topic 3: Advanced Features of Word processor

Formatting and Editing tools are used to design how each page of a document will appear when it is printed. Additional features like find/ replace/insert are used for editing purposes and in some cases, to create a report. Using drawing tools like shape tools, user can insert pictures as per their requirements to enhance the look of the document.

Learning Outcomes:

Children will be able to:

- ☑ enhance the document by using advanced formatting tools;
- ☑ use editing tools;
- ☑ use drawing tools.

Advanced Features of Word processor

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
➤ Advanced formatting tools like Format painter, Subscript, Superscript shadows etc., ➤ Editing tools ➤ Header & footer ➤ Inserting column & column break, page break and line break ➤ Tabs, indent text, Margins ➤ Page orientation and page size ➤ Search and replace text ➤ Drawing tools ➤ Working with shapes ➤ Placing text in shapes ➤ Applying border and shading etc.	➤ Recollect activities discussed in classes earlier ➤ Demonstrating in group to children the advanced formatting tools to enhance the look of the document. ➤ Demonstrating in groups to children the editing tools of page setting ➤ Explaining the drawing tools	➤ Computer/ IWB with Word Processor. ➤ Hands on activity/ experiences ➤ Projector ➤ Demonstration by teacher

Integration: Languages

Life Skills: Creative thinking.



Topic 4: Presentation software – Special Effects

Presentations can be enhanced in an attractive manner by using various tools like clipart, word art, animations, etc. These ensure that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

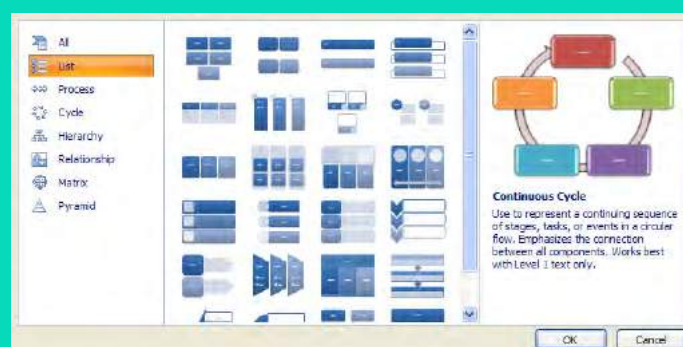
- ☑ express the topic attractively using different templates;
- ☑ enhance the presentation by applying formatting effects and inserting objects.

Presentation software – Special Effects

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
➤ Built-in templates ➤ Enhancing the look of a presentation ➤ Changing colour scheme, background colour. ➤ Specifying alignments. ➤ Inserting different objects like Clipart, Word art and shapes	➤ Recapitulation of previous learning. ➤ Demonstrating the procedure of using templates. ➤ Demonstrating applying different formatting effects Providing hands on experience in groups/individually to children in using the various formatting effects.	➤ Computers/ IWB with presentation software. ➤ Projector

Integration: Arts Education

Life Skills: Creative thinking



Topic 5: An Introduction to Scratch Programming

Programming is the process of taking an algorithm/stepwise-thinking and encoding it into a programming language, so that a computer can execute it and produce the desired output.

Scratch is a free programming software that enables children to create their own games, animated stories and interactive art.

Learning Outcomes:

Children will be able to:

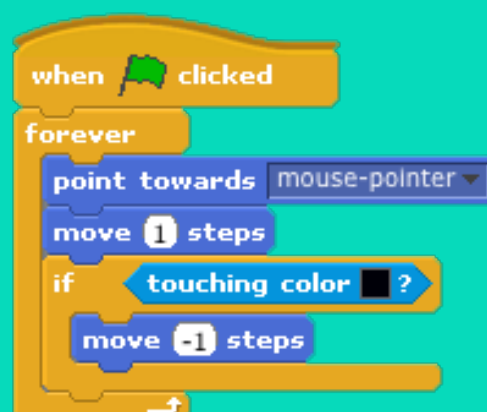
- ✓ explain the concept of programme and programming;
- ✓ work on scratch interface;
- ✓ handle basic commands;
- ✓ develop logical thinking.

An Introduction to Scratch Programming

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
➤ Program Programming ➤ Brief introduction of Scratch software ➤ Use of basic commands in Scratch	➤ Explaining the concept of program and programming ➤ Hands on activity in groups/individually to children to get acquainted with Scratch and basic commands like 'motion', 'pen, and 'sound' blocks ➤ Providing opportunities by using computers to develop creativity and imagination among children.	➤ Computers/ IWB with Scratch software ➤ Projector, etc.

Life Skills: Creative thinking

Integration: Mathematics



Topic 6: Internet Services

Internet services enables the user to access and gain information through use of the internet. There are different ways to connect to the internet. For example, dial-up, broadband and wireless services.

Learning Outcomes:

Children will be able to:

- ☑ identify the ways to connect to the Internet services;
- ☑ use the different internet services;
- ☑ follow Netiquettes while communicating online.

Internet Services		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
➤ Ways to connect to the Internet ➤ Netiquettes while communicating online	➤ Organising active discussions /participation of children sharing their experiences related with the topic. ➤ Discussing and demonstrating different ways to connect to Internet services like dial-up, broadband and wireless. ➤ Discussing strategies to safeguard oneself while communicating online by following Netiquettes. ➤ Emphasising the importance of being a responsible netizen. ➤ Providing hands-on experience to children in groups/individually in actual use of the Internet. ➤ Facilitating a Quiz Game amongst children in groups/whole class on the key concepts.	➤ Computers/ IWB with presentation software

Life Skills: Interpersonal skills, net safety

