Skillment Computer



Based on NCF for Foundational Stage 2022 and NIPUN BHARAT 2021 A Multi-skill Activity Book on Computer Science













Coding

Computational Thinking

Experiential Learning

Multidisciplinary Approach

Subject Integration

Art Integration

Skill Formation

Linked with SDGs



LESSON PLAN

PROJECTED LESSON PLAN

DATE			
(Date/Period of execution)			
CLASS - 2	SECTION	NO. OF STUDENTS	students
	(To be filled by the teacher)	(To be filled by the teacher)	
SUBJECT	Computer	DURATION OF PERIOD	35 to 40 minutes
THEME/CONTENT/CHAPTER	Computer at Various Places	UNIT/SUB-UNIT	Chapter 1
NAME OF THE TEACHER(S)			
(To be filled by the teacher)			
	Stage 1- Desi	red Results	
General Objective:		Specific Objective:	
 To develop the interest of students in learning computers. To enable them to identify the different types of computers. To make them understand how useful computer is in real life. 		 Students will acquire knowledge about the features of computers. Students will understand the uses of computers in different places. 	
Learning Outcomes:			
 Students can define Computer Students can tell the features of a computer. Students can tell about different types of computers. Students can tell the uses of computers at different places. Students can tell how a computer is useful in real life. Students can tell which type of computer is more useful at the school level. 			
Stage 2- Learning Plan			
Teachers to Gauge Previous Knowledge of the Students/		Teaching Aids:	
Pre-Preparation Before taking	the Session:	1. Stationery/TL Aids: Classroom objects like Pen, Pencil, Chalk, Duster,	
 Teacher will ask students - Where have you seen the computer? Teacher will ask students - For which purpose do your parent use the computer? 		Projector 2. Printed Material/Books: Bo 3. Worksheets/Workbook: W 4. Multimedia/Video link: Ma	/orksheet

Methodology:

Session/Period 1(Topic): What is a Computer, Features of a Computer, and Different Types of Computers

Aim: To get knowledge about features and different types of computers.

Strategy: By showing some pictures on a projector, the teacher will give a brief recap of the parts and uses of computers that they have learned in previous grades.

Now, the teacher will give a recall to the students that how we provide instructions to the computer to get things done.

Now, the teacher will start a new topic:

What is Computer?

A computer is an electronic device that takes instructions from us and gives us the result after processing.

Now, the teacher will start the next topic:

Features of Computer:

- > Fast: Computer works very fast.
- Accurate: Computers do not make any mistakes.
- > Multi-Tasking: Computer can do many things helps play games, watch movies, etc.

Types of Computers:

Different types of computers are used in different places. They are varied in size. Some are big, others are small in size:











SuperComputer

Desktop Computer

Laptop Computer

Tablet PC

SmartPhone

1. Supercomputer:

- very big and powerful
- works very fast
- > can store a huge amount of information
- > used for weather forecasting and research purpose

2. Desktop Computer:

- > small in size
- placed on a desk
- > used in homes, schools, and offices

3. Laptop Computer:

- > smaller in size
- > lightweight
- > portable
- > can be placed on the lap
- > works on **batteries** as well as the main power supply

4. Tablet PC (Tablet Computer):

- > very small in size
- > Equipped with a digital camera, microphone, and touchscreen
- > used by touching the screen with a finger

5. SmartPhone:

- > A mobile phone provides extra facilities with basic phone facilities
- > has a built-in digital camera and a touchscreen
- > size is smaller than a tablet PC

At the end of a session (in the last 5 minutes) students will understand about features of computers and different types of computers.

Expected Skills achieved by the learners:	Cognitive Skills	, Visual-Spatial	Skills
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HOMEWORK:

Tick (✓) the correct answer:

)	A computer is a/an device.	
	a. Manual b. Natural c. Electronics	
	(Chapter 1 / Topic: What is Computer? / Exercise: Tick the correct answer, C	Q1)
•	is designed to be placed conveniently on our lap.	
	a. Desktop b. Laptop c. Tablet PC	
	(Chapter 1 / Topic: Laptop / Exercise: Tick the correct answer, Q2)	

	omputers can do only one type of work. Chapter 1 / Topic: Features of computer/ Exercise: True or False, Q1)
	upercomputers can easily be carried from one place to another.
(C	Chapter 1 / Topic: Different types of computers: Super Computer/ Exercise: True or False, Q2)
	aptops are very big in size. Chapter 1 / Topic: Different types of computers: Laptop/ Exercise: True or False, Q3)
Fi	ill in the blanks with the help of words given in the box.
La	aptop Supercomputer Desktop
	works very fast and stores a huge amount of information.
(C	Chapter 1 / Topic: Types of Computers: Super Computers/ Exercise: Fill in the blanks, Q1)
	nswer the following questions.
VV	/hat is a computer?
(C	Chapter 1 / Topic: What is Computer? / Exercise: Answer the questions, Q1)
()	mapler 17 Topic. What is Computer: 7 Exercise. Answer the questions, Q1)
Na	ame the different types of computers.
(C	Chapter 2 / Topic: Types of Computers/ Exercise: Answer the questions, Q2)
on/	/Period 2 (Topic): Uses of a computer
	get knowledge about the application area of Computers.

Strategy: (in the first 5 minutes) Give a brief recap by asking students about the uses of computers that they have learned in the previous grade.

Now, the teacher will start the next topic:

A computer is a very useful machine and it is used in several places such as schools, homes, banks, hospitals, airports, and railway stations.

You can do many things with this wonderful machine – a computer.

Let us study the different uses of computers: (by showing different pictures teacher will explain the uses of computers)

Uses of Computer:

- 1. Computers in School: (Teacher can ask students for which purpose they use computers in school)
 - > Teaching
 - Learning and studying in Lab
 - > Sending reports and circulars
 - > Keeping records
 - Preparing question papers
 - Preparing the results

The teacher can show some educational movies/videos on the computer.

2. Computers in Office:

- Keeping records
- > Typing and printing documents
- > Sending and receiving e-mails

3. Computers in Bank:

- Withdrawing money from an ATM
- Maintaining accounts
- Keeping records

4. Computers at Home:

- Playing games
- Watching movies
- Maintaining monthly expenses
- Listening songs
- Doing homework

5. Computers at Railway Stations and Airports:

- > Reservation and cancellation of tickets
- > Keeping records of the arrival and departure of trains and flights
- 6. Computers in Hospital:
 - Diagnosing diseases

At the	 Preparing medical reports Keeping records end of the session (in the last 5 minutes) students will understand the uses of a computer.
	cted Skills achieved by the learners: Cognitive Skills, Visual-Spatial Skills
Home	ework:
	Tick (✓) the correct answer.
•	In, computers are used for preparing exam results. a. school b. office c. bank (Chapter 1 / Topic: Uses of Computer/ Exercise: Tick the correct answer, Q3) In office, computers help in documents. a. playing b. drawing c. printing
	(Chapter 1 / Topic: Uses of Computer / Exercise: Tick the correct answer, Q4)
•	At railway station, computers help in booking a. fees b. tickets c. recording
	(Chapter 1 / Topic: Uses of Computer / Exercise: Tick the correct answer, Q5)
•	Write 'T' for True and 'F' for False statements. In banks, computers are used for playing games.
	(Chapter 1 / Topic: Uses of computer/ Exercise: True or False, Q4)
•	Fill in the blanks with the help of words given in the box. Laptop Supercomputer Desktop computers are used in schools. (Chapter 1 / Topic: Use of Computer / Exercise: Fill in the blanks, Q2) works on batteries as well as the main power supply. (Chapter 1 / Topic: Uses of Computer / Exercise: Fill in the blanks, Q3)
•	Fill in the blanks by unscrambling the letters. In school, computer is used for ECIGTHAN

	(Chapter 1 / Topic: Uses of Computer / Exercise: Fill in the blanks, Q1)
•	Computer is used for booking tickets at RRAPTIO
	(Chapter 1 / Topic: Uses of Computer / Exercise: Fill in the blanks, Q2)
•	Computer helps a doctor to diagnose A S E D S I E
	(Chapter 1 / Topic: Uses of Computer / Exercise: Fill in the blanks, Q3)
	Answer the following questions.
•	What is the use of computers in a bank?
	(Chapter 1 / Topic: Uses of Computer / Exercise: Answer the questions, Q3)
ctiv	rities /Project /Integration/Research Work:
. 1	ntegration
	ntegration is done with Art and Craft. Ask students to prepare a chart of uses of the computer by pasting pictures. (or draw and color)
,	Pls specify about project work/research work and details as per the activities) Ask students to visit ATM with an elder family member. Ask parents to show computerized train or plane tickets.
o b	e further elaborated by the teacher)
las	swork:
	Read the chapter and solve the exercises. Note down the uses of computers in school. teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered as class work)
ein	forcement of Contents:
1.	. A computer is an electronic device that takes instructions from us and gives the result after processing them.

- Supercomputers, desktop computers, laptop computers, tablet PC, and smartphones are different types of computers.
 We can do many things using a computer.
 Computers are used in schools, offices, banks, homes, hospitals, shops, airports, and railway stations.

Revision:

- 1. What is a computer?
- 2. Features of a computer.
- 3. Different types of Computers:
 - > Supercomputer
 - Desktop Computer
 - Laptop Computer
 - > Tablet PC
 - > Smartphone
- 4. Uses of Computers:

In school

In office

In bank

At home

At the railway station and airport

In hospital

Note: - Respective teacher to further plan the session based on the understanding **reflected** by the learners in the class. The teacher can also suggest the learners to **inquire** further.

Homework/ Assignment /Activity back Home:

- 1. Write features of the computer.
- 2. Write the characteristics of laptop computers.
- 3. What is the use of computers in hospitals?

Assessment Means:

- 1. Explanation of topic
- 2. Questions

- 3. Quiz
- 4. Group discussion

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction, and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learner's needs and interests
- 2. Number of learners and facilitators/teachers in a class
- 3. Creative teaching-learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- **5.** Assessment schedule of the school
- 6. Holidays and events held in the school



PROJECTED LESSON PLAN

NO. OF STUDENTS (To be filled by the teacher) DURATION OF PERIOD UNIT/SUB-UNIT	students 35 to 40 minutes	
(To be filled by the teacher) DURATION OF PERIOD		
DURATION OF PERIOD	35 to 40 minutes	
	35 to 40 minutes	
UNIT/SUB-UNIT		
	Chapter 2	
ed Results		
General Objective: Specific Objective:		
 To develop the interest of students in learning computers. To enable them to understand the uses of computer devices. To make them understand a computer can store work for future use. Students will learn about some basic input devices. Students will learn about some basic output devices. Students will learn about some basic output devices. 		
Learning Outcomes:		
 Students can tell about computer devices. Students can tell about basic input devices like keyboard, mouse, joystick, etc. Students can tell about basic output devices like monitors, printers, speakers, etc. Students can tell why we should save our work. Students can tell about explaining commonly used storage devices like hard disks, CD-ROMs, etc. 		
ning Plan		
Teachers to Gauge Previous Knowledge of the Students/ Teaching Aids:		
Duster, Projector 2. Printed Material/Books 3. Worksheets/Workbook	:: Worksheet	
·	Specific Objective: 1. Students will learn about so a student	

Methodology:

Session/Period 1(Topic): Input Devices, Output Devices, Storage Devices

Aim: To get knowledge about Input Devices, Output Devices, and Storage Devices.

Strategy: By showing some pictures on a projector (or actual computer), the teacher will give a brief recap of computer devices and memory which they have learned in the previous class.

First, the teacher will give an introduction to computer devices by showing the computer itself or on a projector.

Computer devices are divided into three groups:

- Input Devices
- Output Devices
- Storage Devices

Now, the teacher will start the next topic:

(Teacher can explain this topic by showing some pictures or actual devices, if possible)

Input Device: The data and instructions we give to the computer are called inputs. The devices that help to enter these data and instructions are called input devices.

Basic input devices are:

Keyboard:

Used to type words and numbers.

Mouse:

Known as a pointing device used to select objects on the monitor and to draw pictures.

Joystick:

Used to play games.

Microphone:

Used to record voice and send it to a computer.

Scanner:

Used to scan the images and send them to a computer.









Now, the teacher will start the next topic:

(Teacher can explain this topic by showing some pictures or actual devices-if possible)

Output Devices: The result we get after processing the instructions is called output. The devices that help in getting and viewing results (output) are called output devices.

Basic output devices are:

- Monitor: Used to display the output (soft copy) on its screen.
- Printer: Used to take output (hard copy/printout) on paper.
- Speakers: Used to give output in the form of sound.







Now the teacher will start the next topic:

(Teacher can play a memory game with students to start this topic)

Storage Devices: We need our work for future use. Computers can store our work in different storage devices.

Common storage devices are:

Hard Disk:

It is a main storage device. Stores a large amount of data and information very fast.

> CD-ROM:

CD-ROM stands for **C**ompact **D**isc - **R**ead **O**nly **M**emory.

It is circular in shape.

It is used to store data.

> DVD:

DVD stands for **D**igital **V**ideo **D**isc.

It is circular in shape. It has a larger storage capacity.

Pen Drive (Flash Drive):

It is Portable in size.



At the	end of a session (in the last 5 minutes) students will understand about:
>	Introduction to computer devices Input devices Output devices Storage devices ted Skills achieved by the learners: Cognitive Skills, Spatial Skills
НОМЕ	WORK:
	Tick (✔) the correct answer:
•	Keyboard is an example of device. a. input b. output c. storage (Chapter 2 / Topic: Input Devices/ Exercise: Tick the correct answer, Q1)
•	A is used to play games on a computer. a. scanner b. printer c. joystick (Chapter 2 / Tapicularust Davises / Evergine Tick the correct angular (22)
•	(Chapter 2 / Topic: Input Devices / Exercise: Tick the correct answer, Q2) A
•	is the main storage device in a computer. a. Hard disk b. DVD c. Pen drive
	(Chapter 2 / Topic: Storage Devices / Exercise: Tick the correct answer, Q4)
•	Write 'T' for True and 'F' for False statements. Input devices are used to enter instructions. (Chapter 2 / Topic: Input Devices / Exercise: True or False, Q1) A mouse is also known as a pointing device. (Chapter 2 / Topic: Input Devices / Exercise: True or False, Q2) A microphone is an output device. (Chapter 2 / Topic: Input Devices / Exercise: True or False, Q3) The output we get on paper is called a soft copy. (Chapter 2 / Topic: Output Devices/ Exercise: True or False, Q4) Storage allows us to save our work for future use. (Chapter 2 / Topic: Storage Devices/ Exercise: True or False, Q5)

	Fill in the blanks by unscrambling the letters.
•	EBKARODY
	(Chapter 2 / Topic: Input Devices / Exercise: Fill in the blanks, Q1)
•	A CD-ROM is in shape. I C R L U C A R
	(Chapter 2 / Topic: Storage Devices/ Exercise: Fill in the blanks, Q2)
•	N P E I R E D V
	(Chapter 2 / Topic: Storage Devices / Exercise: Fill in the blanks, Q3)
•	Answer the following questions. What are computer devices?
	(Chapter 2 / Topic: Introduction/ Exercise: Answer the questions, Q1)
•	Name any one input and one output device.
	(Chapter 2 / Topic: Input-Output Devices / Exercise: Answer the questions, Q2)
•	What is the use of a storage device?
	(Chapter 2 / Topic: Storage Devices/ Exercise: Answer the questions, Q3)
ctivi	ties /Project /Integration/Research Work:
1 Ir	ntegration

Integration
 Integration is done with Art and Craft. Ask students to prepare an artifact using an old CD-like hanging.

2. (Pls specify about project work/research work and details as per the activities)

- > Ask students to make a Memory Book (Friends' names, birth dates, address, etc.)
- > Ask students to make a pen drive or speakers from cardboard.

(To be further elaborated by the teacher)

Classwork:

- 1. Read the chapter and exercise.
- 2. Note down the full form of CD-ROM, DVD.

(The teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered, as class work)

Reinforcement of Contents:

- 1. Keyboard, mouse, joystick, microphone, and scanner are input devices through which we enter data and instructions into a computer.
- 2. Monitor, printer, and speakers are output devices through which we get the result or output.
- 3. Hard disk, CD-ROM, DVD, and pen drive are storage devices in which we can save our work.

Revision:

- 1. Introduction to computer devices.
- 2. Input Devices:
- Jovstick
- Microphone
- Scanner
- Touch Screen

- 3. Output Devices:
 - Monitor

Keyboard

Printer

Mouse

- Speakers
- Smartboard

- 4. Storage Devices:
 - Hard Disk
- CD
- DVD
- Pen Drive

Note: - Respective teacher to further plan the session based on the understanding reflected by the learners in the class. The teacher can also suggest the learners to **inquire** further.

Homework/ Assignment /Activity back Home:

- 1. What is the use of a joystick?
- 2. Name any two storage devices.

Assessment Means:

- 1. Explanation of topic
- 2. Questions
- 3. Quiz
- 4. Group discussion

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction, and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learners' needs and interests
- 2. Number of learners and facilitators/teachers in a class
- **3.** Creative teaching-learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- 5. Assessment schedule of the school
- 6. Holidays and events held in the school



PROJECTED LESSON PLAN

DATE			
(Date/Period of execution)			
CLASS - 2	SECTION	NO. OF STUDENTS	students
	(To be filled by the teacher)	(To be filled by the teacher)	
SUBJECT	Computer	DURATION OF PERIOD	35 to 40 minutes
THEME/CONTENT/CHAPTER	Fun with Tux Paint	UNIT/SUB-UNIT	Chapter 3
NAME OF THE TEACHER(S)			
(To be filled by the teacher)			
	Stage 1- Desir	ed Results	
General Objective:		Specific Objective:	
			vledge of various tools of Tux Paint. he use of slide shows.
Learning Outcomes:			
Students can tell about th	open a new drawing in Tux Paint. save drawings. Slide Show is. make a slide show. of slide show.		
	Stage 2- Lear	ning Plan	
Teachers to Gauge Previous K	(nowledge of the Students/	Teaching Aids:	
Pre-Preparation Before taking	the Session:		lassroom objects like Pen, Pencil, Chalk,
1. Teacher will ask students – Do you like to draw using a computer?		Duster, Projector, Dra 2. Printed Material/Books	3

2. Teacher will ask students – Have you done painting using stamps?	3. Worksheets/Workbook: Worksheet
	4. Multimedia/Video link: Main book multimedia

Methodology:

Session/Period 1(Topic): Tux Paint, Create Scenery using Tools like Lines tool, Paint tool, Fill tool, Stamp Tool, Magic tool

Aim: To get knowledge about different tools of Tux Paint to draw and paint.

Strategy: By showing the Tux Paint program on the projector, the teacher will give a brief recap of the Tux Paint window and its components which they have learned in the previous class.

Tux Paint:

It is a free drawing program that was created by **Bill Kendrick** in the year 2002.

The teacher will demonstrate how to open a new drawing using a projector or computer.

Now, the teacher will demonstrate (on the projector) to students how they can make a colorful drawing using various tools of Tux Paint

(Students do have basic knowledge of tools as they have learned in a previous class).

Lines Tool:

It is used to draw straight lines. You can draw a hut, mountains, etc.

Paint Tool:

It is used to draw freehand drawings. You can create flowers, clouds, rivers, etc.

> Fill Tool:

It is used to fill color in any closed shape.

> Stamp Tool:

It is just like a rubber stamp or sticker. It is used to paste pre-drawn or photographic images. Some stamps even have sound effects.

Magic Tool:

It is used to add some special effects.

At the end of the session (in the last 5 minutes) students will understand about:

- How to start a new drawing in Tux Paint?
- > Create a colorful drawing using different tools.
- Lines Tool
- Paint Tool

- Fill Tool
- Stamp Tool
- Magic Tool

Expected Skills achieved by the learners: Cognitive Skills, Fine Motor Skills

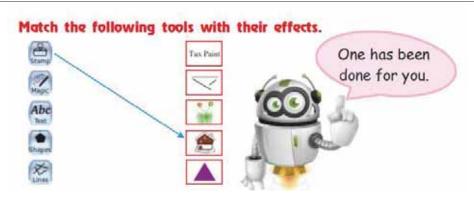
HOMEWORK:

Tick (✓) the correct answer:

•		tool is used	to make freehand drawings.
	a. Erase	b. Paint	c. Lines
	(Chapter 3 / T	opic: Paint Too	/ Exercise: Tick the correct answer, Q1)
•		tool is found	in the Magic tool.
	a. Paint	b. Fill	c. Lines
	(Chapter 3 / T	opic: Fill Tool/ E	Exercise: Tick the correct answer, Q2)
•	·	tool is used	l as a sticker.
	a. Stamp	b. Text	c. Lines
	(Chapter 3 / 1	Горіс: Stamp To	ol/ Exercise: Tick the correct answer, Q3)

Write 'T' for True and 'F' for False statements.

- Tux Paint is a paid drawing program.
 (Chapter 3 / Introduction to Tux Paint/ Exercise: True or False, Q1)
- We can fill color in a closed shape.
 - (Chapter 3 / Topic: Fill Tool/ Exercise: True or False, Q2)
- We can apply only one stamp on the canvas.
 - (Chapter 3 / Topic: Stamp Tool/ Exercise: True or False, Q3)
- The magic tool is used to add special effects to the drawing.
 - (Chapter 3 / Topic: Magic Tool/ Exercise: True or False, Q4)



Fill in the blanks.

- T_X P_I_T is a free drawing program used to draw different shapes and drawings.
 (Chapter 3 / Topic: Introduction to Tux Paint/ Exercise: Fill in the blanks, Q1)
- S_A_P tool is used to paste pre-drawn images.
 (Chapter 3 / Topic: Stamp Tool/ Exercise: Fill in the blanks, Q2)
- S__U__D effect can be disabled and enabled by pressing Alt + S key from the keyboard.
 (Chapter 3 / Topic: Stamp Tool: Sound Effect/ Exercise: Fill in the blanks, Q3)

Answer the following questions.

What is the use of the Stamp tool?

(Chapter 3 / Topic: Stamp Tool/ Exercise: Answer the questions: Q1)

What is the use of the Magic tool?

(Chapter 3 / Topic: Magic Tool/ Exercise: Answer the questions, Q2)

Session/Period 2(Topic): Text Tool, Save Tool, Slide Show

Aim: To get knowledge about different tools of Tux Paint to draw and paint (continue), and use of Slide Show.

Strategy: Using the Tux Paint program, the teacher will give a brief recap of Tux Paint tools that they have learned in the previous session.

Now, the teacher will start the next topic. (Teacher should demonstrate on the projector. Learning a program practically makes it easier to understand for students.)

The teacher can continue with the same drawing (project) which is done in the previous session to demonstrate other tools:

- Text Tool:
 - It is used to type text and numbers. You can add your name or give a heading to the drawing.
- > Save Tool:

Click the **Save** tool from the toolbar. Save your file. It will help you to create different files for the project.

Now, the teacher will start the next topic: (The teacher can explain the slide show by showing a pictorial storybook)

Slide Show:

Slide show helps to run all the scenes of a story or text one after another.

Using a projector, the teacher will demonstrate to create a slide show. Using the **Sliding Scale** we can adjust the speed of the slide show. Each slide has two buttons, **Next** and **Back**.

At the end of the session, students will understand:

- Text Tool
- Save Tool
- Slide Show

Expected Skills achieved by the learners: Cognitive Skills, Fine Motor Skills

HOMEWORK:

Tick (✓) the correct answer.

tool is used to add text and numbers.

(Chapter 3 / Topic: Text Tool/ Exercise: Tick the correct answer, Q4)

Fill	in	the	blar	nks.
S	ı	F	Н	W helps to

S_I_E_H_W helps to run all the scenes one after another.
 (Chapter 3 / Topic: Slide Show/ Exercise: Fill in the blanks, Q4)

Answer the following questions.

Why do we use slide show in Tux Paint?

(Chapter 3 / Topic: Parts of Computer: Mouse / Exercise: Answer the questions, Q3)

Activities /Project /Integration/Research Work:

Integration

Integration is done with Art and Craft. Ask students to prepare a story by drawing/pasting different pictures.

Ask students to make their own stamp from potato and prepare one drawing.

1. (Pls specify about project work/research work and details as per the activities)

> Ask students to make a slide show on their favorite festivals

(To be further elaborated by the teacher)

Classwork:

1. Read the chapter and do the exercises.

(The teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered, as class work)

Reinforcement of Contents:

- 1. Tux Paint is used to draw different shapes and drawings.
- 2. Paint tool is used to make freehand drawings.
- 3. Stamp tool is like a rubber stamp or sticker.
- 4. Magic tool is used to add special effects in the drawing.
- 5. Text tool is used to type text and numbers in the drawing.
- 6. Slide show helps to run all the scenes of a story or text, one after another.

Revision:

- 1. Introduction to Tux Paint
- 2. Create a drawing using Tux Paint tools
- Lines Tool
- Paint Tool
- > Fill Tool
- Stamp Tool
- Magic Tool
- Text Tool
- Save Tool
- 3. Slide Show

Note: - Respective teacher to further plan the session based on the understanding reflected by the learners in the class. The teacher can also suggest the learners inquire further.

Homework/ Assignment /Activity back Home: (Pls add more if need be as per the plan)

- 1. What is the use of Text tools?
- 2. What is the use of Save tool?

Assessment: (Pls add more if need be as per the plan)

- 1. Explanation of topic
- 2. Questions
- 3. Quiz
- 4. Group discussion
- 5. Flash Card

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction, and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learners' needs and interests
- 2. Number of learners and facilitators/teachers in a class
- 3. Creative teaching-learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- 5. Assessment schedule of the school
- 6. Holidays and events held in the school

PROJECTED LESSON PLAN

DATE							
(Date/Period of execution)							
CLASS - 2	SECTION	NO. OF STUDENTS	students				
	(To be filled by the teacher)	(To be filled by the teacher)					
SUBJECT	Computer	DURATION OF PERIOD	35 to 40 minutes				
THEME/CONTENT/CHAPTER	Word 2016	UNIT/SUB-UNIT	Chapter 4				
NAME OF THE TEACHER(S)							
(To be filled by the teacher)							
	Stage 1- Des	ired Results					
General Objective:		Specific Objective:					
 To develop the interest of students in learning computers. To enable them to identify various components of the Word window. To enable them to type some text and select the text. To enable them to save documents for future use. Students will acquire knowledge of word processing. Students will understand the word processing program and Word will acquire knowledge about changing the style, size, a color of fonts. 			he word processing program and Word.				
Learning Outcomes:							
 Students can tell what is word processing. Students can tell the use of word processing. Students can tell how to start Word 2016 program. Students can tell about the components of the Word window. Students can tell how to select text. Students can tell how to change font style, size, and color. Students can explain how to save a document. 							
Stage 2- Learning Plan							
Teachers to Gauge Previous Knowledge of the Students/ Teaching Aids:							

Pre-Preparation Before taking the Session:

- 1. Teacher will ask students Have you seen a letter, postcard, or report card?
- 2. Teacher will ask students Have you written a letter to anyone?

- Stationery/TL Aids: Classroom objects like Pen, Pencil, Chalk, Duster, Projector
- 2. Printed Material/Books: Book 2 CodeAl
- 3. Worksheets/Workbook: Worksheet
- 4. Multimedia / Video link: Main book multimedia

Methodology:

Session/Period 1(Topic): Introduction to Word Processing, Starting Word 2016, Word window

Aim: To get knowledge about word processing, Word 2016, and components of the Word 2016 Window.

Strategy: By showing the keyboard, the teacher will give a brief recap of the keyboard and its keys which they have learned in the previous classes. We can create our document on a computer using a keyboard (typing using a keyboard), and we can play music by pressing the keys of the Keyboard (instrument) of piano.

Now, the teacher will start a new topic:

Introduction:

Word processing means using a computer to create, edit, save, and print documents. (Teacher can show the textbook and explain how a document is created.)

Word processing program is used to create a document. Using Word, we can create beautiful and attractive documents.

Now, the teacher will demonstrate how to start **Word 2016** program on a projector.

By clicking on Blank Document, empty document titled Document1 appears on the screen.

Now, the teacher will explain Word 2016 window on the projector:



Now, the teacher will demonstrate how to start **Word 2016** program on the projector:

Word 2016 Window

The teacher will explain the components one by one:

> Title bar:

It is the topmost line of the Window. It shows the name of the current document.

Quick Access Toolbar:

It displays Save, Undo, and Redo buttons for quick access.

> File Tab:

It displays a drop-down menu of file commands such as New, Open, and Save.

> Tabs:

It also displays a drop-down menu of related commands – Insert Tab, Design Tab, etc.

> Ribbon:

It displays groups of related commands in tabs.

> Cursor:

It is a small vertical flashing line on the screen.

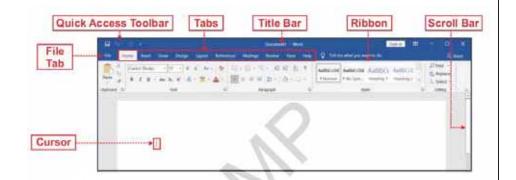
At the end of the session (in the last 5 minutes) students will understand about

- What is word processing?
- Use of word processor Program.
- How to start Word 2016.
- > Components of Word 2016 window.

Expected Skills achieved by the learners: Cognitive Skills, Fine Motor Skills

HOMEWORK:

Tick (✓) the correct answer.



•	program is used to type letters, words and sentences.
	a. Word b. Paint c. Tux Paint
	(Chapter 4 / Topic: Introduction/ Exercise: Tick the correct answer, Q1)
•	bar displays the name of the current document.
	a. Title b. Menu c. Status
	(Chapter 4 / Topic: Components of Word 2016: Title bar / Exercise: Tick the correct answer, Q2)
	Write 'T' for True and 'F' for False statements.
•	Ribbon display groups of related commands in Tabs.
	(Chapter 4 / Topic: Components of Word 2016: Ribbon/ Exercise: True or False, Q1)
	Fill in the blanks.
•	TT_E_A_ is the topmost bar in Word window.
	(Chapter 4 / Topic: Components of Word 2016: Title bar / Exercise: Fill in the blanks, Q1)
•	C_R_O_ is a small vertical flashing line on the screen.
	(Chapter 4 / Topic: Components of Word 2016: Cursor/ Exercise: Fill in the blanks, Q2)
•	K_Y_O D is used to type letters, words, numbers, etc. on a computer.
	(Chapter 4 / Topic: Introduction/ Exercise: Fill in the blanks, Q3)
	Answer the following questions.
	What do you mean by Word?
•	What do you moun by Word:
	(Chapter 4 / Topic: Introduction / Exercise: Answer the questions, Q1)
essi	on/Period 2(Topic): Working with Word 2016
ım:	To get knowledge about creating a document using Word 2016 program.

Strategy: First, the teacher will give a brief recap of Word window components by showing the screen which they have learned in the previous session.

Now, the teacher will start the next topic: (Teacher should demonstrate on the projector. Learn a program that practically makes it easier to understand for students.)

Entering Text Using Keyboard:

As we write in notebooks, we can enter text into documents using a keyboard.

The teacher should demonstrate on the projector how one can type using a keyboard.

Selecting Text:

To make any changes in typed text, one needs to select it first. Selected text appears highlighted on the screen.

The teacher will demonstrate how to select a word, a line, a paragraph, or a long selection.

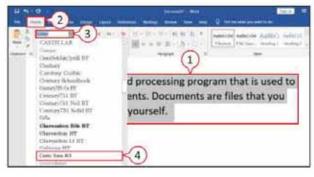
Formatting Text:

As you write some words with underlining or highlight them with different colors, the same way you can format text in Word program.

Bold, Italic, and Underline Text:

- Bold to make text dark
- Italic to make text slant
- Underline to make the text underlined

Changing Font Style:



Bold



Italic 1



Underline

Ctrl + B == **Bold**

Ctrl + I == *Italic*

Ctrl + U == <u>Underline</u>

- 1. Select the text.
- 2. Click on Home tab.
- 3. Click on Font option.
- A list of Fonts appears.
- Click on the desired Font.

Changing Font Size:

It increases or decreases the size of the text.

Changing Font Color:
It will make your text more attractive and eye-catching.
Now the teacher will start the next topic:
Saving a Document:
As you note down points in our notebook for future use, you must save your text on the computer for future use.
The teacher will give a recall to storage devices.
Storage is the process of saving work permanently in a storage device like a hard disk.
The teacher will demonstrate on the projector how one can save the document.
Ctrl + S is the shortcut key for save.
At the end of a session (in the last 5 minutes) students will understand about
 Working with Word 2016 Selecting Text Bold, Italic, Underline Text Changing Font Style Changing Font Size Changing Font Color Saving a Document Expected Skills achieved by the learners: Cognitive Skills, Fine Motor Skills
Expected Skills achieved by the learners. Cognitive Skills, Fille Motor Skills
HOMEWORK:
Tick (✔) the correct answer.
The text appears darker if we select the option. a. Italic b. Bold c. Underline
31

	(Chapter 4 / Topic: Bold Text / Exercise: Tick the correct answer, Q3)
•	Shortcut key for saving a document is
	a. Ctrl+Z b. Ctrl+R c. Ctrl+S
	(Chapter 4 / Topic: Bold Text / Exercise: Tick the correct answer, Q3)
	Write 'T' for True and 'F' for False statements.
•	To select a word, triple-click on it.
	(Chapter 4 / Topic: Selecting Text/ Exercise: True or False, Q2)
•	The text appears slanted when we select the bold option.
	(Chapter 4 / Topic: Italic Text/ Exercise: True or False, Q3)
•	Storage is the process of saving work permanently.
	(Chapter 4 / Topic: Save a Document/ Exercise: True or False, Q4)
	Answer the following questions.
•	What happens if you click on the Bold and Italic options?
	(Chapter A / Tania, Bald, Italia Tayt/ Eversion, Anguar the greations, O2)
	(Chapter 4 / Topic: Bold, Italic Text/ Exercise: Answer the questions, Q2)
•	Why do we change font color?
	(Chapter 4 / Topic: change the font color / Exercise: Answer the questions, Q3)
Ctiv	vities /Project /Integration/Research Work:
1	Integration
	Integration Integration is done with the English language. Students will be able to complete a few lines about themselves/school and then type the same.
	integration is done with the English language. Students will be able to complete a few lines about themselves/school and then type the same.

2. (Pls specify about project work/research work and details as per the activities)

Ask students to prepare a chart of shortcut keys with pictorial representation/keys of the same.

For e.g. Ctrl + B - Bold, Ctrl + I - Italics, etc.

Bold B
Italic I

(To be further elaborated by the teacher)

Classwork:

1. Read the chapter and solve the exercises.

(The teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered, as class work)

Reinforcement of Contents:

- 1. Word is a word processing program used for creating documents.
- 2. We can enter text in Word with the help of a keyboard.
- 3. The text must be selected before making any changes to it.
- 4. We can use Bold, Italic, or Underlined features to make text dark, slanted, or underlined.
- 5. We can change the style size and color of the text in Word.
- 6. Work should be saved on the computer for future use.

Revision:

- What is word processing?
- Use of word processor program.
- ➤ How to start Word 2016?
- Components of Word 2016 window.
- ➤ Working with Word 2016
- Selecting Text
- > Bold, Italic, Underline Text
- Changing Font Style
- Changing Font Size
- Changing Font Color
- > Saving a Document

Note: - Respective teacher to further plan the session based on the understanding **reflected** by the learners in the class. Teacher can also suggest the learners **inquire** further.

Homework/ Assignment /Activity back Home:

- 1. What is the use of the Scrollbar?
- 2. How can one do a long selection of text?

Assessment Means:

- 1. Explanation of topic
- 2. Questions
- 3. Quiz
- 4. Group discussion
- 5. Memory Game

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learners' needs and interests
- 2. Number of learners and facilitators/teachers in a class
- **3.** Creative teaching-learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- **5.** Assessment schedule of the school
- 6. Holidays and events held in the school

PROJECTED LESSON PLAN

DATE							
(Date/Period of execution)							
CLASS - 2	SECTION	NO. OF STUDENTS	students				
	(To be filled by the teacher)	(To be filled by the teacher)					
SUBJECT	Computer	DURATION OF PERIOD	35 to 40 minutes				
THEME/CONTENT/CHAPTER	More on Paint	UNIT/SUB-UNIT	Chapter 5				
NAME OF THE TEACHER(S)							
(To be filled by the teacher)							
	Stage 1- Desir	red Results					
General Objective:		Specific Objective:					
 To enable them to identify various components of the Paint window. Students will learn to 			various options and tools in Paint. e drawings. ge about saving drawings with different file				
Learning Outcomes:							
 Students can tell about Paint program. Students can tell how to start the Paint program. Students can tell about Paint window. Students can explain the use of various options and tools of Paint. Students can differentiate between cut-paste and copy-paste. Students can tell how to save drawings. Students can tell how to save drawing in different file formats. 							
Stage 2- Learning Plan							
Teachers to Gauge Previous Knowledge of the Students/		Teaching Aids:					

Pre-Preparation Before taking the Session:

(PIs specify and add more points if need be as per the plan)

- 1. Teacher will ask students if they like to make drawings using a computer.
- 2. The teacher will ask students if they remember how to start the Paint program?
- 1. Stationery/TL Aids: Classroom objects like Pen, Pencil, Chalk, Duster, Projector
- 2. Printed Material/Books: Book 2 CodeAl
- 3. Worksheets/Workbook: Worksheet
- 4. Multimedia / Video link: Main book multimedia

Methodology:

Session/Period 1(Topic): Introduction, Starting Paint, Paint Window Components, Various Options like Select Option, Resize Option, Skew Option

Aim: To get knowledge about Paint, its components, and options like select, resize, and skew.

Strategy: By using a projector, the teacher will give a brief recap of the Paint program which they have learned in the previous classes.

First, the teacher will give an introduction to the Paint program using a projector:

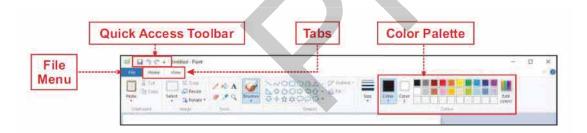
Introduction:

Paint is a drawing program. After drawing the objects, one can edit them by using different features. (Teacher can demonstrate one/two features)

Now, the teacher will demonstrate how to start the Paint program.

Now the teacher will start the next topic:

Paint Window:



Quick Access Toolbar:

It is placed in the top left corner having some most important buttons like Save, Undo, and Redo.

> File Menu:

It is the first button under Quick Access Toolbar which opens the main menu.

> Tab:

There are two tabs

- 1. Home Tab: All the main image editing tools.
- 2. View Tab: Options for Zoom in/out or Full-screen mode.
- > Color Palette:

It is used to select Foreground and Background colors.



Now the teacher will start the next topic:

Using various options in Paint:

Select Option:

This option is used to select a drawing or a part of it. After selecting the drawing, one can **move** it from one place to another in the Paint window. One can drag and drop objects in a new location.

Resize Option:

Re-size means changing the size of an object/drawing. Resize option is used to change the size of the drawing by making it smaller or bigger.

Skew Option:

This option is used to stretch an image from one end while the other end remains fixed.

(Teacher will demonstrate options on the projector)

At the end of a session (in the last 5 minutes) students will understand about:

- Introduction to the Paint Program
- Paint Window Components
- Various Options:

Select Option

Resize Option

Skew Option

Expected Skills achieved by the learners: Fine Motor Skills, Cognitive skill

OME	EWORK:
ck (✓) the correct answer.
•	is a program used to draw and color objects. a. Paint b. WordPad c. Windows (Chapter 5 / Topic: Introduction / Exercise: Tick the correct answer, Q1) tool is used to select a part or whole drawing. a. Resize b. Select c. Flip (Chapter 5 / Topic: Various Option: Select Option / Exercise: Tick the correct answer, Q2)
•	Dotted shows that the object has been selected. a. circle b. triangle c. rectangle
	(Chapter 5 / Topic: Various Option: Select Option / Exercise: Tick the correct answer, Q3)
•	Write 'T' for True and 'F' for False statements. View tab contains the main image editing tools. (Chapter 5 / Topic: Tabs / Exercise: True or False, Q1) Skew command is used to stretch an image. (Chapter 5 / Topic: Various Options: Skew / Exercise: True or False, Q2) We cannot move the selected image. (Chapter 5 / Topic: Various Options: Select/ Exercise: True or False, Q4) Fill in the blanks. H M and V E are the two tabs in Paint. (Chapter 5 / Topic: Tabs / Exercise: Fill in the blanks, Q1) Default foreground color of Paint is B A K and Default background color is W I E. (Chapter 5 / Topic: Color Palette / Exercise: Fill in the blanks, Q2)
	Answer the following questions.
•	What is the use of Paint program?

(Chapter 5 / Topic: Introduction to Paint Program / Exercise: Answer the questions, Q1)

Name the buttons present on Quick Access Toolbar

Traine the satisfie present on adjoin toolse.	
	_

(Chapter 5 / Topic: Quick Access Toolbar/ Exercise: Answer the questions, Q2)

Session/Period 2(Topic): Various options (continue) Rotate and Flip, Copy-Paste, Cut-Paste, Crop Image, Color Picker Tool and How to Save Drawing

Aim: To get knowledge about various options - Rotate and Flip, Copy-Paste, Cut-Paste, Crop, Color Picker, and how to save drawing for future use.

Strategy: By demonstrating on the projector teacher will give a brief recap of Paint components, Select, Resize, and Skew options.

Now, the teacher will continue with other options of the Paint program:

Rotate and Flip Option:

Rotate option changes the position of the picture to different angles. The flip feature creates a mirror image of the picture horizontally or vertically.

Ctrl + C = copy

Ctrl + X = cut

Ctrl + V = paste

Copy and Paste:

Instead of repeatedly drawing the same image, one can use the **Copy and Paste** option. One can copy an image from one place and paste it into another place.

Cut and Paste:

It is used to remove the drawing from its original place and paste it into another place.

Crop Image:

After cropping, only the selected part of the image is visible.

Select Color using Color Picker Tool:

Sometimes you need to use the same color as in the existing drawing/image. This tool enables to paint using a color already present in an image/drawing. Now, the teacher will start the next topic:

Saving: To view or modify the drawing in the future, one needs to save the drawing. Select File menu --> Save option. Give the filename in the Save As dialog box. **Saving Drawings in Different File Formats:** Paint can save drawings in multiple file formats such as JPEG, PNG, BMP, TIFF, etc. Select the desired file format in the Save As dialog box. At the end of a session (in the last 5 minutes) students will understand about: Various options: Rotate and Flip Copy and Paste **Cut and Paste** Crop Image Select Color using Color Picker Tool Saving drawing Expected Skills achieved by the learners: Fine Motor Skills, Cognitive Skill HOMEWORK: Tick the correct answer. feature creates a mirror image of the picture. a. Rotate b. Flip c. Copy (Chapter 5 / Topic: Flip Option/ Exercise: Tick the correct answer, Q4)

feature to see only the selected part of the image.

c. Skew

(Chapter 5 / Topic: Crop Image/ Exercise: Tick the correct answer, Q5)

Write 'T' for True and 'F' for False statements.

b. Resize

Use

a. Crop

Rotate feature creates a mirror image of the picture.
 (Chapter 5 / Topic: Rotate Feature/ Exercise: True or False, Q3)

•	Paint file can only be saved in PNG format. (Chapter 5 / Topic: Saving Drawing in Different file formats/ Exercise: True or False, Q5) Fill in the blanks.
•	CL_R PC_E tool picks a color from a colored drawing. (Chapter 5 / Topic: Color Picker Tool/ Exercise: Fill in the blanks, Q3)
•	Answer the following questions. Why do we use copy and paste option?
	(Chapter 5 / Topic: Copy and Paste option/ Exercise: Answer the questions, Q3)
•	Write the different file formats for saving a drawing in Paint.
	(Chapter 5 / Topic: Saving Drawing in different file formats/ Exercise: Answer the questions, Q4)
ctiv	vities /Project /Integration/Research Work:
	Integration Integration is done with Art. Students will learn to create a drawing and color it using different tools of Paint.
	(Pls specify about project work/research work and details as per the activities) ➤ Ask students to make a chart of the use of various options available in the Paint program.
Γo b	be further elaborated by the teacher)

Class work:

- 1. Read the chapter and solve exercises.
- 2. Draw Paint program window and label it.

(The teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered as class work)

Reinforcement of Contents:

- 1. Paint program is used to draw shapes, figures, and cartoons.
- 2. Skew option is used to stretch an image only from one end.
- 3. Rotate command is used to change the position of the image to different angles.
- 4. Flip command is used to create a mirror image of the picture.
- 5. Crop feature lets us see only the selected part of the image.
- 6. Color Picker tool is used to pick a color from an open image or colored drawing.

Revision:

- 1. Introduction to the Paint program
- 2. Components of Paint window:
 - Quick Access Toolbar
 - > File menu
 - > Tabs: Home and View tab
 - Color Palette
- 3. Various options available in Paint:
 - > Select
 - Resize
 - > Skew
 - Copy and Paste
 - Cut and Paste
 - Rotate and Flip
 - Crop Image
- 4. Save drawing
- 5. Saving drawing in different file formats like JPEG, PNG, BMP, TIFF.

Note: - Respective teacher to further plan the session based on the understanding **reflected** by the learners in the class. Teacher can also suggest the learners to **inquire** further.



Homework/ Assignment /Activity back Home:

- 1. What is the difference between Copy-Paste and Cut-Paste?
- 2. What is the use of Rotate and Flip tools?

Assessment Means:

- 1. Explanation of topic
- 2. Questions
- 3. Quiz
- 4. Group discussion
- 5. Identification from given figure

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learners needs and interests
- 2. Number of learners and facilitators/teachers in a class
- 3. Creative teaching learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- **5.** Assessment schedule of the school
- **6.** Holidays and events held in the school

PROJECTED LESSON PLAN

DATE	DATE			
(Date/Period of execution)				
CLASS - 2	SECTION	NO. OF STUDENTS	students	
	(To be filled by the teacher)	(To be filled by the teacher)		
SUBJECT	Computer	DURATION OF PERIOD	35 to 40 minutes	
THEME/CONTENT/CHAPTER	Arrangement of Patterns	UNIT/SUB-UNIT	Chapter 6	
NAME OF THE TEACHER(S)				
(To be filled by the teacher)				
	Stage 1- Desire	ed Results		
General Objective:		Specific Objective :		
 To enable them to think logic To enable them to solve the 	udents in learning computers. cally. instructions more efficiently. nd the workflow of the communication process.	2. Students will understand	ire knowledge about growing and repeating patterns. rstand decomposition. to code-decode using secret codes.	
 Students can tell about de Students can tell how larged Students can define coding Students can define decomposition 	 Students can tell about growing and repeating patterns. Students can tell about decomposition. Students can tell how larger tasks became easier after decomposition. 			
	Stage 2- Lear	ning Plan		
Teachers to Gauge Previous K	Previous Knowledge of the Students/ Teaching Aids:			
Pre-Preparation Before taking (Pls specify and add more poin		1. Stationery/TL Aids: Classroom objects like Pen, Pencil, Chalk, Duster, Stickers/symbols, drawing sheets/plain paper 2. Printed Material/Books: Book 2 CodeAl		

- 1. Teacher will ask students if they have observed any pattern on their cloth/bed sheets.
- 2. Teacher will ask students if they like Rangoli and Mandala Art.

- 3. Worksheets/Workbook: Worksheet
- 4. Multimedia / Video link: Main book multimedia

Methodology:

Session/Period 1(Topic): Pattern, Growing and Repeating, Decomposition, Code-Decode

Aim: To get knowledge about Patterns, Growing and Repeating Patterns, Decomposition, and Code-Decode.

Strategy: By showing some drawings/patterns, the teacher will give a brief recap of Patterns that they have learned in the previous classes.

(For the teacher: Pattern recognition as part of computational thinking is the process of identifying patterns in a data set to categorize, process and resolve the information more effectively.)

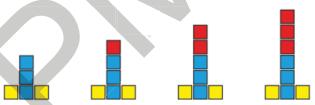
Now, the teacher will explain more about Patterns: (Teacher can demonstrate on board/projector or give students drawing sheets to draw their own patterns.)

Pattern:

Patterns are regular arrangements of lines, shapes and colors.

Growing Pattern:

When something is added to a pattern every time, it is called growing pattern.



Repeating Pattern:

Pattern that repeats itself over and over again according to a certain rule is called repeating pattern. It does not add anything new.











By understanding patterns, students become more efficient and quicker in solving instructions.

Now, the teacher will start the next topic:

Decomposition:

Decomposition means breaking down a task/problem into smaller parts, to make it easier to understand.

A teacher can give an example of daily life like brushing teeth, taking bath, drawing a hut/sun, etc.

Code-Decode:

A teacher can explain this topic with a color code game.

When we represent information using symbols/pictures/codes, it is called coding.

When we convert the information back to its original form, it is called **decoding**.

Make students understand how the information is secured.

At the end of a session (in the last 5 minutes) students will understand about:

- What is Pattern?
- Growing Pattern
- Repeating Pattern
- Composition
- Coding
- Decoding

Expected Skills achieved by the learners: Computational Thinking, Logical Reasoning

HOMEWORK:

Write 'T' for True and 'F' for False statements.

- Growing pattern does not add anything to itself.
 (Chapter 6 / Topic: Pattern/ Exercise: True or False, Q1)
- We use decomposition in our daily lives too.
 (Chapter 6 / Topic: Decomposition/ Exercise: True or False, Q2)
- Coding represents information using symbols.
 (Chapter 6 / Topic: Coding/ Exercise: True or False, Q3)

	Fill in the boxes.
•	RPAIG pattern does not add anything to itself.
	(Chapter 6 / Topic: Pattern / Exercise: Fill in the boxes, Q1)
•	D_C_M_O_I_I_N makes things easier to understand.
	(Chapter 6 / Topic: Decomposition/ Exercise: Fill in the boxes, Q2)
•	When we represent information using symbols for pictures, it is called CDN
	(Chapter 6 / Topic: Coding/ Exercise: Fill in the boxes, Q3)
Activ	rities /Project /Integration/Research Work:
1. I	Integration
	Integration is done with Mathematics. Ask students to prepare their own patterns using geometric shapes.
	Art Integration. Students will understand the concept of color coding.
	(Pls specify about project work/research work and details as per the activities)
	Ask students to prepare their own code for alphabets/names with some symbols like smiley, shapes, sun, etc.
	Ask students to break down the task "draw a sun" and write its steps.
lob	be further elaborated by the teacher)
Class	swork:
1. F	Read the chapter and solve the exercises.
Tho	teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered as class work)
THE	teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered as class work)
Reinf	forcement of Contents:
1.	. Patterns are regular arrangements of lines, shapes, and colors.
	. Growing patterns and repeating patterns are two types of patterns.
	. Decomposition is breaking down a problem into smaller parts.
4.	. Coding is the representation of information using symbols or pictures.
5.	. Decoding is converting the information back to its original form.
Revis	sion:
	. What is Pattern? . Growing Pattern
۷.	. Ordwing ration

- 3. Repeating Pattern
- 4. Composition
- 5. Coding
- 6. Decoding

Note: - Respective teacher to further plan the session based on the understanding **reflected** by the learners in the class. Teacher can also suggest the learners to **inquire** further.

Homework/ Assignment /Activity back Home:

- 1. What is decomposition?
- 2. What is code and decode?

Assessment Means:

- 1. Explanation of topic
- 2. Questions
- 3. Quiz
- 4. Group discussion
- 5. Pattern making

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learners needs and interests
- 2. Number of learners and facilitators/teachers in a class
- 3. Creative teaching learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- 5. Assessment schedule of the school
- **6.** Holidays and events held in the school

PROJECTED LESSON PLAN

DATE			
(Date/Period of execution)			
CLASS - 2	SECTION	NO. OF STUDENTS	students
	(To be filled by the teacher)	(To be filled by the teacher)	
SUBJECT	Computer	DURATION OF PERIOD	35 to 40 minutes
THEME/CONTENT/CHAPTER	Fun with ScratchJr	UNIT/SUB-UNIT	Chapter 7
NAME OF THE TEACHER(S)			
(To be filled by the teacher)			
	Stage	e 1- Desired Results	
General Objective:		Specific Objective:	
2. To enable them to identify va	udents in learning computers. arious components of the SaratchJr some sprite character and background of corogram on ScratchJr.	creen. 2. Students will acquire know	the SaratchJr program and its working. vledge about motion block to move sprites.
Learning Outcomes:			
5. Students can tell how to r6. Students can tell how to r7. Students can tell how to r	ng. download ScratchJr. ne components of ScratchJr screen. move sprite. change background. add another character/sprite. create a program or script.	e 2- Learning Plan	
Teachers to Gauge Previous K	(nowledge of the Students/	Teaching Aids:	

Pre-Preparation Before taking the Session:

(Pls specify and add more points if need be as per the plan)

- 1. Teacher will ask students Do you like watching animation/cartoons?
- 2. Teacher will ask students Have you seen a flip book?

- 1. Stationery/TL Aids: Classroom objects like Pen, Pencil, Chalk, Duster, Projector
- 2. Printed Material/Books: Book 2 CodeAl
- 3. Worksheets/Workbook: worksheet
- 4. Multimedia / Video link: main book multimedia

Methodology:

Session/Period 1(Topic): Introduction to ScratchJr, Working on ScratchJr, Downloading ScratchJr, Starting ScratchJr, ScratchJr screen.

Aim: To get the basic knowledge about downloading, starting ScratchJr and ScratchJr screen.

Strategy: By showing a code-decode worksheet, the teacher will give a brief recap of coding which they have learnt in the previous session.

The teacher will ask students if they would like to create their program/script.

Now, the teacher will give an Introduction to ScratchJr.

ScratchJr is a fun-based programming language for kids.

The teacher will now explain coding which they have already learned in previous sessions.

Coding:

Coding, sometimes called computer programming, is **how we communicate with computers**. Code tells a computer what actions to take, and writing code is like creating a set of instructions. By learning to write code, you can tell computers what to do or how to behave in a much faster way.

Working on ScratchJr:

Like students play a Lego game and board game, in a similar way they can work on ScratchJr by snapping the blocks together to make characters move, jump or dance. Students can add a new character, change background, and add voice effects and sounds.

Now, the teacher will demonstrate how to download ScratchJr.

ScratchJr is a free app that runs on tablet (Android and iOS). One can download it from the store or directly from the website.

Now, the teacher will start the next topic:

Starting ScratchJr:

The teacher should demonstrate on projector so students will be clearer.

By default, ScratchJr is not installed on your device. You have to download it from the Internet and install it on your device.



This is the first screen you see when you open the ScratchJr app.

1. Click the Home
button.



The ScratchJr window appears on the screen.

The home screen shows all of your saved ScratchJr projects.

Click the plus sign [] to make a new project.

Now, the teacher will explain **ScratchJr Screen** by demonstrating on projector:

1. Sprite:

The main character that performs all the actions.

2. Stage:

A place for your program/script/animation.

3. Sprite list:

Shows available sprites, you can add more sprites to the project.

4. Background:

To change background.

5. Flag:

Click on the green flag to start main program.

6. Pages:

To add new pages in the project.

7. Script/Program:

Step-by-step instructions are given to the sprite in the form of a stack of blocks.

8. Script Area:

A place to make programs by assembling blocks.

9. Blocks Palette:

Shows all the available blocks.

10. Block Category: Lists the six categories of color-coded blocks:
 Triggering Motion Looks Sounds Control End
At the end of a session (in the last 5 minutes), students will understand about: > ScratchJr > How to download ScratchJr > How to start ScratchJr > Components of ScratchJr screen • Expected Skills achieved by the learners: Logical Thinking, Creativity, Problem-Solving
HOMEWORK:
Tick (✓) the correct answer.
We can download the ScratchJr app for an iOS from a. BlueStacks b. Google Play c. App Store
(Chapter 7 / Topic: Downloading ScratchJr/ Exercise: Tick the correct answer, Q1)
Script is also known as a a. page
(Chapter 7 / Topic: Components of scratch/ Exercise: Tick the correct answer, Q2)
is the place where we make our program by assembling blocks. a. Script Area
(Chapter 7 / Topic: Components of scratch/ Exercise: Tick the correct answer, Q3)
Write 'T' for True and 'F' for False statements.

•	ScratchJr can only run on Tablets.
•	(Chapter 7 / Topic: Downloading ScratchJr/ Exercise: True or False, Q1) By default, ScratchJr is installed on our device.
	(Chapter 7 / Topic: Starting ScratchJr/ Exercise: True or False, Q2)
•	Blocks category lists the six categories of color-coded blocks.
	(Chapter 7 / Topic: ScratchJr Screen/ Exercise: True or False, Q3)
	Fill in the boxes.
•	On desktop, B_U_S_A_K_ software is used to run ScratchJr.
	(Chapter 7 / Topic: Using ScratchJr on Desktop/ Exercise: Fill in the boxes, Q1)
•	SA_E is the place where the sprite moves.
	(Chapter 7 / Topic: ScratchJr Screen/ Exercise: Fill in the boxes, Q2)
	Answer the following questions.
•	What is ScratchJr?
	(Chapter 7 / Topic: Introduction ScratchJr/ Exercise: Answer the questions., Q1)
	List the name of color-coded blocks available in Block category.
•	List the hame of color-coded blocks available in block category.
	(Chapter 7 / Topic: ScratchJr Screen/ Exercise: Answer the questions, Q2)
	(
Sessi	ion/Period 2(Topic): Moving the Sprite, Changing Background, Adding Another Character or Sprite, Creating a Program
Aim:	To get the basic knowledge of ScratchJr, and make students able to create their own program.
Strate	egy: By demonstrating on the projector, the teacher will give a brief recap on how to download ScratchJr, and use ScratchJr and ScratchJr screen
which	they have learned in the previous sessions.

Now, the teacher will start the next topic:

Moving Sprite:

Use the **motion blocks** to make the Sprite move. (Teacher will demonstrate on the projector)

Changing Background:

By default, the stage has white background. To make the stage more interesting and lively, change the background.

The background shows available options for the same. Click on the desired background and then click on the check mark.

Adding Another Character or Sprite:

Tic, is the main character. Sometimes we like to add different characters to the project. Click on the + sign. It shows available characters. Select a new character and click on the check mark.

The new character always appears in the middle of the stage.

Creating a Program:

As we play a board game and follow step-by-step instructions, this is called a script or program in ScratchJr.

Drag more blocks to the Script Area and snap them together to make a sequence of actions. This sequence of actions is called a script or program.

The teacher will demonstrate how one can create a program/script using ScratchJr using Projector.

(The script runs from the beginning and each block is highlighted as it runs.)

At the end of a session (in the last 5 minutes) students will understand about:

- Moving sprite
- Changing background
- > Adding another character or sprite
- Creating a program
- Expected Skills achieved by the learners: Logical Thinking, Creativity, Problem-Solving

HOMEWORK:

Tick (✓) the correct answer.

To make the sprite move, use the blocks. a. motion b.looks c. control
(Chapter 7 / Topic: Moving Sprite/ Exercise: Tick the correct answer, Q4)
 Write 'T' for True and 'F' for False statements. When the script runs, each block is highlighted. (Chapter 7 / Topic: Creating a Program/ Exercise: True or False, Q4)
Fill in the boxes. By default, the background of the stage is WI_E. (Chapter 7 / Topic: Changing Background/ Exercise: Fill in the boxes, Q3) The sequence of actions is called SR_P (Chapter 7 / Topic: Creating a Program/ Exercise: Fill in the boxes, Q4) Answer the following questions. How do we make a sequence of actions? (Chapter 7 / Topic: Creating a Program/ Exercise: Answer the questions, Q3)
Activities /Project /Integration/Research Work:
 Integration Art Integration. Students will use scripts for the selected sprites to make them move and talk on the stage.
 (Pls specify about project work / research work and details as per the activities) Ask students to prepare a flip book which shows a flying balloon.
(To be further elaborated by the teacher)
Class work:
1. Read the chapter and solve exercises.

(Teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered, as class work)

Reinforcement of Contents:

- 1. ScratchJr is a fun-based programming language for kids.
- 2. We can work on ScratchJr by snapping the blocks together to make characters move, jump or dance.
- 3. Sprite is a character that performs all the actions.
- 4. Sprite is a collective instruction given to a sprite in the form of a stack of blocks.
- 5. We can change the background of the stage to make it more interesting and livelier.
- 6. We can add more characters to the projects.

Revision:

- 1. ScratchJr
- 2. How to download ScratchJr?
- 3. How to start ScratchJr?
- 4. Components of ScratchJr screen:
 - Sprite
 - Stage
 - Sprite list
 - Background
 - Flag
 - Pages
 - Script/Program
 - Script Area
 - Blocks Palette
 - Block Category
- 5. Moving sprite
- 6. Changing background
- 7. Adding another character or sprite
- 8. Creating a program

Note: - Respective teacher to further plan the session based on the understanding **reflected** by the learners in the class. Teacher can also suggest the learners to **inquire** further.



Homework/ Assignment /Activity back Home:

1. What is a program/script?

Assessment Means:

- 1. Explanation of topic
- 2. Questions
- 3. Quiz
- 4. Group discussion

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learners needs and interests
- 2. Number of learners and facilitators/teachers in a class
- 3. Creative teaching learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- **5.** Assessment schedule of the school
- **6.** Holidays and events held in the school

PROJECTED LESSON PLAN

DATE (Date/Period of execution)			
CLASS - 2	SECTION	NO. OF STUDENTS	students
	(To be filled by the teacher)	(To be filled by the teacher)	
SUBJECT	Computer	DURATION OF PERIOD	35 to 40 minutes
THEME/CONTENT/CHAPTER	Understanding AI	UNIT/SUB-UNIT	Chapter 8
NAME OF THE TEACHER(S)			
(To be filled by the teacher)			
	Stage 1- Desi	red Results	
General Objective:		Specific Objective:	
	udents in learning computer. ate between Al machine and normal machine. Petalica Paint.	Students will understand to 2. Students will acquire known.	the concept of AI. Vledge about the Applications of AI.
earning Outcomes:			
 Students can tell about A Students can differentiate Students can tell about th Students can tell how to s 	e between AI machine and normal machine. ne applications of AI. start Petalica Paint. use Petalica Paint for coloring.		
	Stage 2- Lea	rning Plan	
Teachers to Gauge Previous K	(nowledge of the Students/	Teaching Aids:	

Pre-Preparation Before taking the Session:

(PIs specify and add more points if need be as per the plan)

- 1. Teacher will ask students Have you seen or heard about the movie Terminator?
- 2. Teacher will ask students Do you know about Alexa or Siri?

- Stationery/TL Aids: Classroom objects like Pen, Pencil, Chalk, Duster, Projector, Internet connection
- 2. Printed Material/Books: Book 2 CodeAl
- 3. Worksheets/Workbook: Worksheet
- 4. Multimedia / Video link: Main book multimedia

Methodology:

Session/Period 1(Topic): Concept of AI, AI in Today's World, AI Machine and Normal Machine, AI Around Us

Aim: To get the knowledge of AI, difference between AI and normal machine, AI applications around us.

Strategy: By showing some examples of AI, teacher will give a brief recap of AI which they have already introduced in previous classes.

All is when you make a computer like a little brain. You help it to learn by giving it a lot of words and pictures and numbers.

Now, the teacher will start explaining the concept of Artificial Intelligence:

Artificial intelligence or Al:

It is the ability of a machine to copy human intelligence.

The goal of AI is to make computers take intelligent decisions.

Using a general register or any book, the teacher can explain about the intelligent decision: it's a sound decision based on data collected from experiences.

Now, the teacher will start the next topic:

Al in Today's World:

The teacher can give an example of Terminator or any other Al-based movie. In reality, we have not received this level of Al (which is shown in the movie Terminator).

Al Machine and Normal Machine:

A normal machine is fed with instructions. It just follows the instructions.

When a machine is programmed with AI, it develops human understanding and behavior.

For example, a normal music system plays music through CD or a DVD, or a flash drive. On the other hand, a smart music system plays music through human voice commands.

Now, the teacher will explain:
Artificial Intelligence around us:
Al makes life easier.
Al in Digital Assistants:
You might have seen Apple's Siri and Amazon's Alexa, these two are the most famous Al personal assistants. They help users to make a call or search for information on web by understanding voice commands.
Al in YouTube Video Recommendations:
By showing some learning videos on YouTube, Teacher can demonstrate how YouTube suggests similar kinds of videos. It is with the help of Al.
Al in Games:
Playing games is a favorite activity for children. The majority of video games such as racing, shooting, etc. are powered by Al.
At the end of a session (in the last 5 minutes) students will understand about :
 Concept of AI AI machine and normal machine AI in today's world AI around us AI in digital assistants AI in YouTube video recommendations AI in games Expected Skills achieved by the learners: Logical Thinking, Decision Making
HOMEWORK:
Tick (✔) the correct answer.
 Artificial Intelligence is a machine's ability to human intelligence. a. destroy b. copy c. increase (Chapter 8 / Topic: Concept of AI / Exercise: Tick the correct answer, Q1) An AI-programmed machine develops human understanding and a. emotion b. behavior c. voice
(Chapter 8 / Topic: Al machine/ Exercise: Tick the correct answer, Q2) • Al-powered games maintain the of the players.
Al-powered games maintain the of the players. 60
00

	a. interest b. relations c. balance
	(Chapter 8 / Topic: AI in games/ Exercise: Tick the correct answer, Q3)
	Write 'T' for True and 'F' for False statements.
•	There is no difference between a normal machine and an Al-enabled machine.
	(Chapter 8 / Topic: Normal Machine and Al/ Exercise: True or False, Q1)
•	A music system gives output in the form of text.
	(Chapter 8 / Topic: Al around us/ Exercise: True or False, Q2)
•	Siri and Alexa are famous Al personal assistants.
	(Chapter 8 / Topic: Al in Digital Assistants/ Exercise: True or False, Q3)
•	Majority of video games are powered by Artificial Intelligence. (Chapter 8 / Topic: Al in Gaming/ Exercise: True or False, Q4)
	(Ghapter o / Topic. At in Gaining/ Exercise. True of Paise, Q4)
	Fill in the boxes.
•	The skill or ability to deal with changing situations is called ITL_ I EC .
•	(Chapter 8 / Topic: Concept of Intelligence / Exercise: Fill in the boxes, Q1)
•	A normal electronic machine is fed with I S R C I N
	(Chapter 8 / Topic: Al Machine / Exercise: Fill in the boxes, Q2)
•	Smart music system with AI plays music through human voice CM_AS.
	(Chapter 8 / Topic: Al around us / Exercise: Fill in the boxes, Q3)
•	YouTube suggests similar kind of VDO
	(Chapter 8 / Topic: Al in YouTube Video Recommendations / Exercise: Fill in the boxes, Q4)
	Answer the following questions.
•	What is the goal of Artificial Intelligence?
	(Chapter 8 / Topic: Concept of Al/ Exercise: Answer the questions., Q1)
•	Give two examples of AI in our daily life.

(Chapter 8 / Topic: Al around us/ Exercise: Answer the questions, Q2)

Session/Period 2(Topic): Al Lab: Petalica Paint (Practical)

Aim: To get the basic knowledge of Petalica Paint, starting Petalica Paint.

Strategy: By discussing/demonstrating teacher will give a brief recap of AI, AI around us which they have learnt in previous session.

Now, the teacher will start a new topic:

Al Lab:

Students will enjoy coloring based on AI technology.

Petalica Paint (Internet connection required):

It is a free online AI-based coloring program.

Starting Petalica Paint:

The teacher will demonstrate how to start Petalica Paint on projector.

The ways to work in Petalica Paint:

1. Upload any line drawing to Petalica Paint:

As soon as image is uploaded, Al will process the image and start coloring automatically.

Three rules to play the game.

At the end of a session (in the last 5 minutes) students will understand about:

- Petalica Paint
- > Two ways to work in Petalica Paint
- > Three rules to play rock,paper and scissor
- Expected Skills achieved by the learners: Creativity, Situation-based Decision-Making

HOMEWORK:	
. •	Tick (✓) the correct answer.
•	In Rock, Paper and Scissors game, beats Rock by covering it. a. Scissors b. Wood c. Paper
	(Chapter 8 / Topic: Rock, Paper and scissors/ Exercise: Tick the correct answer, Q4)
•	Write 'T' for True and 'F' for False statements. Rock, Paper and Scissors game teaches the basic principles of AI technology. (Chapter 8 / Topic: Rock, Paper, Scissors / Exercise: True or False, Q5) Answer the following questions. What does the game Rock, Paper and Scissors depend on?,
	(Chapter 8 / Topic: Rock, paper and Scissors/ Exercise: Answer the questions, Q3)
Activ	ities /Project /Integration/Research Work:
	ntegration Art Integration. Students will learn to color line drawing and raw sketches on the screen with the help of AI.
	Pls specify about project work / research work and details as per the activities) Ask students to prepare a list of AI machines around them.
(To k	pe further elaborated by the teacher)
Class	s work:
1. I	Read the chapter and solve exercises.
The	teacher may use the teaching aids and discussion to give repetition/practice of the contents delivered, as class work)

Reinforcement of Contents:

- 1. Intelligence is the ability to deal with changing situations.
- 2. The goal of AI is to make computers take intelligent decisions.
- 3. Siri and Alexa are the most famous Al personal assistants.
- 4. Al video games create close to reality gaming environment.
- 5. Petalica Paint is free online Al-based coloring program.

Revision:

- 1. Concept of Al
- 2. Al machine and normal machine
- 3. Al in today's world
- 4. Al around us:

Al in digital assistants

Al in YouTube video recommendations

Al in games

- 5. Petalica Paint
- 6. Two ways to work in Petalica Paint
- 7. Three coloring styles: Canna, Satsuki, Tanpopo
- 8. How more attractive, colorful drawing is made by adding color hints?

Note: - Respective teacher to further plan the session based on the understanding **reflected** by the learners in the class. Teacher can also suggest the learners to **inquire** further.

Homework/ Assignment /Activity back Home:

1. Name the coloring styles available in Petalica Paint.

Assessment Means:

- 1. Questions
- 2. Quiz
- 3. Group discussion
- 4. Topic explanation

(To be further decided by the teacher to assess the learners by oral test/interactive session/activity)

Specific Observations:

(To be filled by the teacher for learners/class based on reflection, interaction and assessments conducted)

Note for Teachers to Modify the Lesson Plan Prototype Based on:

- 1. Learners needs and interests
- 2. Number of learners and facilitators/teachers in a class
- **3.** Creative teaching learning methods
- 4. List of vocabulary for reading and writing for practice for learners
- 5. Assessment schedule of the school
- 6. Holidays and events held in the school

