

S.No	Topic	Sub topic	Detail/Content
1	Internet	1.1) Wi-fi	Connect to Wifi.
		1.2) Hotspot	Turn the hotspot on or off.
		1.3) Browser History	Hypertext browsers, Lynx, Mosaic, Netscape, Communication Protocols – Gopher, HTTP, FTP, etc. Data sharing – Usenet.
		1.3.1) Browsers	Types of Browsers, Chrome, Firefox, Edge, Internet Explorer.
2	Usage of E-Mail	2.1) Downloading	To download any documents & files
		2.2) Uploading	To Upload any documents & Files
		2.3) eMail	The exchange of computer-stored messages from one user to one or more recipients via the internet.
		2.4) Sentbox and other folders	Inbox- By default email is received in the inbox. Send- Send folder store emails that you have sent to other peoples. Drafts- When you are writing an email and you have not sent the email to any other user, that time email will be stored in draft by default. Trash- Trash holds deleted email from the inbox.
		2.5) Bookmarks	Bookmark feature can help you find or skip to a specific place at ease without scrolling through large blocks of text
3	Recap	3.1) Windows UI	Recall what we learned in 1yr lesson plan with exercises.
		3.2) DL Activities - Text Document, Spread sheet, Presentation.	Recall what we learned in 1yr lesson plan with exercises.
4	Introduction of Advanced Activity	4.1) Procedural operations in 5*5 grid with real people.	Usage. Real Activity.
		4.2) Directions and orientation.	Right, left, straight. Absolute vs relative.
		4.3) Pseudo code or Flow chart.	Hand written program.
5	Basic Programming	5.1) Procedural operations	Describes a “simple” action. Take one step forward, turn right. Turn left, emit a sound, write hello. etc.
		5.2) Sequence of operations.	Take a step forward – 5 times. Mix of operations in a defined order.
		5.3) Operators	Arithmetic, boolean, relational, etc.
		5.4) Loops	For, While, Until, Do While, Nested loops, Repeated condition.
		5.4.1) Activity (for loop)	Activity for FOR loop.
		5.4.2) for loop	Example program for practice the for loop.
		5.5) Conditional statement	Simple If.
			If-then-else
			Else if ladder
		5.5.1) Activity (If-else)	Make a lesson plan for teach the if- then-else conditions.
6	Advanced programming	Using Scratch & Code.org	
		6.1) Backdrop (Stage)	How to Insert a backdrop, Upload a backdrop from the local drive, Create a new backdrop?.
		6.2) Sprite (Object)	How to Insert a sprite, upload a sprite from local drive, create a new sprite using paint?
		6.3) Costumes	How to create a new costumes using paint, Know about the default costumes.
		6.4) Motion	Move --> How to move the object. (forward, backward)
			Turn left --> Turn the specific angles in left.
			Turn right --> Turn the specific angles in right.
			Axis --> x,y positions.
		6.5) Looks	Text --> Give the information by using text
			Color --> Change the color effect to sprite.
			Show --> Show the sprite.
			Hide --> Hide the sprite.
		6.6) Sound	How to use default sound and select the various sounds from the library
			How to record sound?
		6.7) Pen	Size --> How to increase and decrease the size of pen.
			Color --> Change the color of pen.

		6.8) Events	Basic events --> Flag, key pressed, when sprite is clicked.
		6.8.1) Clones	i) Clones perform same task. li) Different clones perform same task iii) Each clone perform Different task.
		6.8.2) Broadcast	How to maintain the control by using broadcast.
		6.9) Control	Wait
			Repeat
			Forever
		6.10) Conditional Statement	Conditional statement --> How to check the conditions by using variables and operators.
		6.11) Sensing	Touching mouse pointer.
			Touching the specific color.
		6.12) Variables	Storing state information.
		6.13) Functions	Usage of functions in programming.
		6.13.1) Pre-defined Functions	Usage of pre-defined functions in programming.
		6.13.2) User-defined Functions	Usage of user-defined functions in programming.
		6.14) Debugging	Debug the errors in given code(May be code.org, or in scratch)
		6.15) Lists	Usage of lists in programming.
		6.16) Additional features - Text to speech, Translate, Video sensing	Usage of the mentioned features in programming.
		6.17) Abstraction	Learn how to improve programs.
7	Machine Learning (AI Activity)	7.1) https://machinelearningforkids.co.uk/ Machine Learning for Kids (Website Link) Custom Model Training	Using this website we can login and then train the custom model and then create a program using Scratch GUI in online.
		7.2) Voice Recognition(AI)	How to train the model using our voice and implement in the program.
		7.3) Virtual Classroom (AI)	How to train the model using the different kind of text and implement the program, based on that sprites will react.
		7.4) Face Detection (AI), Video Sensing or Image	Using this method we can draw circle, triangle and rectangle to identify the face image it will the correct eyes, nose and mouth position.
		7.5) Hand Gestures (AI), Video Sensing	Using this method we can train the model using our hand gestures.