HAPPYCODER – GRADE 6

1. **Excel to Excel -** Advanced features of MS Excel
   - Select, copy, & move data
   - Inserting rows & columns
   - Charts & graphs
   - Change cell dimensions
   - Formatting, auto ll & formulas
   - Project: Smart school elections
2. **Beyond the Reality -** Introduction to AR and VR
   - Immersive Technology
   - Virtual Reality (VR)
   - Metaverse
   - Augmented Reality (AR)
   - Mixed Reality
3. **Think Like coders -** Algorithms and owcharts
   - Introduction to programming
   - Pseudocode & Flowchart
   - Project 2: Is it a leap year
   - Algorithms and algorithmic thinking
   - Project 1: How to make a cup of coffee
   - Block coding with MakeCode
4. **Make code,with Makecode** - Programming with Makecode
   - Print command
   - Loops
   - Variables, Conditionals, and Operators
   - Project 4: Dynamic background
   - Project 1: Hello World!
   - Project 2: Music Player
   - Project 3: Addition of numbers
   - Project 5: The remainder problem
5. **Meet the python -** Introduction to python
   - Introduction to Python
   - Print
   - Data types
   - Getting started with Python
   - Variables
6. **From a Blank page, to a web page! -** Introduction to HTML
   - Introduction to HTML
   - Project: My Bio
   - HTML tags
   - Types of tags
7. **Can computers see? -** Exploring computer vision
   - Computer vision (CV)
   - Understanding images
   - Tasks of Computer Vision
   - Applications of Computer Vision
8. **Beware of Black- Hats -** Understanding digital safety
   - Identity theft
   - Phishing
   - Ransomware attack
   - Password theft
   - Malware attack
   - Preventing cyber attacks

HAPPYCODER – GRADE 7

1. **Create with krita -** Simple sketch using krita
   - Digital painting
   - Types of layers
   - Brushes, Presets and Stamps
   - Getting started with Krita
   - Toolbox
   - Project: Starry Night
2. **The language of the universe -** Learning number system
   - Why numbers?
   - Decimal system
   - Octal system
   - Numeral system
   - Binary system
   - Hexadecimal system
   - Print command
   - Commenting in Python
3. **Hatching the python** - Basics of python
   - Getting started with Pythons
   - Interactive mode and Script mode
4. **Very able variables -** Understanding variables in python
   - Variables and Constants
   - Creating variables
   - Operators
   - Variables in Python
   - Data types
   - Project: Result Generator
5. **If you think For a While -** Loops and conditionals in python
   - Conditional statements
   - Loops
   - Project 1: Multiplication table
   - If and If-else statements
   - For and While loops
   - Project 2: Guess who am I?
6. **Make a Wiki -** Understanding HTML
   - Web Pages and Websites
   - HTML Attributes
   - HTML Tags
   - Project: MS Dhoni
7. **Power of AI -** Deep dive into AI
   - Arti cial Intelligence (AI)
   - Data science
   - Computer Vision
   - Achieving AI: ML & DL
   - Natural Language Processing
   - AI for SDGs
8. **Creating a positive Digital Footprint** - Responsible Online Behaviour
   - Your online identity
   - Digital footprint
   - Going anonymous
   - Advantages of positive digital footprint

HAPPYCODER – GRADE 8

1. **Re-edit your favourite video** - Editing the video with openshot
   - Why video editing
   - Getting started with OpenShot
   - Exploring OpenShot
   - Project: Birthday party invitation
2. **How does the Net Works** - Basics of Internet and Networking
   - Computer networks
   - The Internet
   - Network topology
   - Types of computer networks
   - Working of websites

Bridge It - Introduction to Python

3. **Taming the Turtle** - Exploring python libraries
   - Modules in Python
   - Project: Area and Circumference
   - Libraries in Python
   - Math module
   - Random module
   - Turtle Graphics Library
4. **Nested for a while in a loop** - Making patterns with turtle library
   - If and If-else
   - While and While-else
   - Project 1: Polygon Maker
   - If-elif-else
   - For loop and Nested loops
   - Project 2: Planets around the Sun
5. **Fun-key events** - Interactive programs using functions & events
   - Functions
   - Calling the function
   - Events
   - Creating a function
   - Functions with Turtle
   - Event-based functions
6. **Stylish websites, made simple** - Learning HTML & CSS
   - HTML tags
   - CSS (Inline, Internal, & External)
   - HTMLattributes
   - Project: Snowy Owl
7. **Making of AI** - AI Project Cycle and Ethics
   - AI Project Cycle
   - 4Ws Problem Canvas
   - Stages of AI Project Cycle
   - AI Ethics
8. **Listen to what data says** - Exploring types of data
   - Data
   - Quantitative and Qualitative data
   - Numerical and Categorical variables
   - Data collection: Primary & Secondary sources
   - Discrete and Continuous data
9. **Think like a data scientist** - Data science Algorithms
   - Data Analysis
   - Data representation
   - Algorithms