



2021 CURRICULUM OVERVIEW

CURRENT MODULES IN 2021 FOR AGE 7 - 16

ScratchThinker 1 - ScratchThinker 6

(Block Programming Foundation)

Age 7 to 12

6 Modules (48 Topics)



Starting Term 1, 11-Jan-2021

Basic Foundation Modules for Computational Thinking covering:

Variables, List Variables, Loops, Nested Loops, Conditions, Nested Conditions, Events, Sequences, Broadcast, Physical Computing, Functions, Game Simulation, Advanced Algorithms

PythonThinker 6 - PythonThinker 12

** Previously PythonThinker 1 - PythonThinker 6

(Text Programming Advanced)

Age 12 to 16

6 Modules (48 Topics)



Starting Term 1, 11-Jan-2021

Advanced Computational Thinking Classes covering:

Python Syntax, Variable Types (string, numbers, boolean, list, dictionary), For-loops, While-loops, Conditions, Functions, Modules, File I/O, Basic Encryption, Pandas and Data Science, Flask Web-App Library

* NEW 2021 ADDITIONAL MODULES FOR AGE 7 - 11

CodeStudio 1 - CodeStudio 5

(Solve Puzzles with Computational Thinking)

Age 7 to 11

10 Modules (80 Topics)



Starting Term 1, March 2021

These modules are supported by code.org and complement concepts taught in our ScratchThinker Modules. These lessons give students an enhanced and deeper look into concepts learn in Scratch covering:

Sequences, Logical Games and Puzzles, Variables, Loops, Nested Loops, Events, and Basic Foundational Computhink topics.

MineCode 1 - MineCode 5

(Practice Coding with Minecraft Education)

Age 7 to 11

5 Modules (40 Topics)



Starting Term 2, July 2021

These modules are based on Minecraft Education Edition, and add on to our ScratchThinker Modules. Students get to practice concepts learnt and code in the fun Minecraft world covering:

Sequences, XYZ Coordinates, Math and Science concepts, Logical Thinking and Planning, Variables, Loops, Nested Loops, Advanced Algorithms.

* NEW 2021 ADDITIONAL MODULES FOR AGE 12 - 16

WebLab 6 - WebLab 7

(Program a Website)

Age 12 and 13

3 Modules (24 Topics)



Starting Term 2, July 2021

These modules are supported by code.org go into the basics of programming websites with HTML and CSS. Students will learn about how the internet works, web servers and webpage design covering:

HTML syntax, CSS Syntax, Design Principles and Project Management

GameLab 7 - GameLab 8

(Program a Game)

Age 13 and 14

3 Modules (24 Topics)



Starting Term 2, July 2021

These modules are supported by code.org and go into the basics of Javascript game programming. Students will learn programming syntax with the most common web programming language covering:

Javascript syntax, Canvas, Game Simulation, Algorithms, Variables, Loops, Conditions, Functions

AppLab 7 - AppLab 10

(Program an App)

Age 13 to 16

7 Modules (56 Topics)



Starting Term 1, March 2021

These modules are supported by code.org and go into basics of App Programming with Javascript and HTML, CSS. Students will learn web-app architecture and code a mobile app.

Advanced Javascript syntax, UI Design, HTML inputs and elements, variables, loops, events, Data Structure and Databases