

Definitions:

Scratch is a visual programming language where you can create your own interactive stories, games, and animations.

Python is a widely used general-purpose, high-level text based programming language.

Curriculum Overview				
Year Group	Term	Unit of Work	Assessment Content	Type of Report
7	1	Introduction Introduction to school systems/ folders/Teams/IT Rules Basic Internet Safety Lesson Scratch 1 Introduction to scratch, which result in students creating the Maze game (With teacher guidance), developing their knowledge of: <ul style="list-style-type: none"> – Movement – If – Looping – Sensing – Changing costumes – Changing backgrounds Sounds / Music		Tutor Report
	2	Python Turtle 1 Introduction to Python which will lead to students developing knowledge of: Drawing simple shapes filling in simple shapes Drawing and colouring the house		
	3	Continuation of Python Turtle 1 Drawing simple shapes filling in simple shapes Drawing and colouring the house	Project outcome assessed Mid-Year Exam covering Scratch and Python Turtle	Mid-Year Exam Data Report and Approach to Learning

		Hardware / History Learn about basic hardware components and what they do: <ul style="list-style-type: none"> – CPU – RAM 		
	4	Continuation of Hardware / History <ul style="list-style-type: none"> – Motherboard – Hard Drive – Optical Drive Learn about computer pioneers and what they are famous for, Identify when computer components were invented and how they developed over time Python Turtle 2 Review and test what students can recall from Python Turtle 1. Then building upon this and developing knowledge of: Using for n in range, Drawing a complex picture Patterns and loops		
	5	Continuation of Python Turtle 2 Review and test what students can recall from Python Turtle 1. Then building upon this and developing knowledge of: Using for n in range, Drawing a complex picture Patterns and loops 1.	Interim Assessment End of topic test	Interim Assessment Data and Full Report and Approach to Learning
	6	Scratch 2 Review and test what students can recall from Scratch 1. Using Scratch, students to plan and create their own game based upon either: <ol style="list-style-type: none"> 2. Pong 3. Block Breaker Simple Platform	End of Year Scratch and Python exam	End of Year Exam Data Report and Approach to Learning

8	1	Scratch 3 Further development in Scratch including cloning objects and responding to user input		
	2	Python 3 Re-introduction to the basics of Python, not using turtle, so what Python is and how non-turtle programs can be written. Students will learn how to: Generate random numbers, Use input Write a number of programs, including: Magic 8 ball Simple lottery Dice game	End of Topic Practical Test Interim Assessment	Interim Assessment Data Report and Approach to Learning
	3	Internet Safety Students will develop their knowledge of internet safety, developing knowledge of: <ul style="list-style-type: none"> – Staying safe online – Social Networking – Cyber Bullying – Sexting – Video Sharing 	Mid-Year Exam covering Python and Scratch	Mid-Year Exam Data Report and Approach to Learning
	4	Python 4 <ul style="list-style-type: none"> – Continue to develop use of Python, completing larger programs using if, elif, else, and, or, and casting 		Full Report
	5	Python 4 Continue to develop use of Python, completing larger programs using if, elif, else, and, or, and casting		

	6	<p>Issues in computing Discussion and learning about privacy, copyright, ethics, laws, games, streaming and other relevant issues.</p>	End of Year Exam in Python and Scratch	End of Year Exam Data Report and Approach to Learning
9	1	<p>Binary Numbers Students will develop knowledge of: What Binary Numbers are Binary to Denary and Denary to Binary conversions ASCII Values, what they are and when they are used Hexadecimal conversions How Images / Sound stored in Binary</p>		
	2	<p>Python 1 Recap and test students prior knowledge of: lists, if elif and else Complete a larger project to create a text-based adventure game</p>	End of Topic Test Interim Assessment End of Topic Test	Interim Assessment Data Report and Approach to Learning
	3	<p>Hardware For the following, students will understand what their function is and how they work: – Memory RAM/ROM – Storage including Virtual/Flash/HDD – CPU – Motherboard – Inputs / Outputs</p>	End of Topic Test Mid-Year Python and binary numbers Exam	Full Report

	4	<p>Python 2 Using loops to repeat code. Using while loops to do this on a conditional basis, and using for loops to do this on a counted basis.</p>		
	5	<p>Computer Systems Students will develop knowledge in a number of computer systems topics including: What a computer system is Relevant Computing Laws Computer systems and ethics Environmental Impacts of Computer systems Impact of computer systems upon society</p>		
	6	<p>Logic Gates Students will develop knowledge of: What these are and how they work. Focussing specifically on AND / OR /NOT gates. Drawing logic circuits Truth Tables Boolean Logic</p>	End of Year Exam	End of Year Exam Data Report and Approach to Learning