

[Computing] Year 8 Curriculum Map 2026/27

Week Commencing	Lesson topic	HAIL	Assessment
Staff INSET 01/09 Students Return 02/09	<u>Induction</u> , welcome, logging into Teams, health and safety, computer user agreement		
07/09/2026	<u>Introduction to programming</u> – Using Python, students will use input, output and variables to store data and return this to the user.	SENECA – 2.3 Python – 2.3.1 – Introduction & 2.3.6 – Selection	
14/09/2026	<u>Programming – Selection</u> . Students will learn how to use IF and MATCH / CASE keywords to allow Python to make decisions and follow programmatic paths		
21/09/2026	<u>Programming – FOR loops</u> . Students will learn how to use count-controlled iteration to allow Python to repeat program code a specific number of times.	SENECA – 2.3.7 – Iteration & 2.3.2 - Input	
28/09/2026	<u>Programming – WHILE loops</u> . Students will learn how to use condition-controlled iteration to allow Python to repeat program code until a condition is met.		
05/10/2026	<u>Programming – combining keywords</u> . Students will learn how to combine IF / WHILE / FOR / INPUT and PRINT into cohesive and well-planned out programs to solve problems	SENECA – 2.3.3 – Output & 2.3.12 - Comments	
12/10/2026	Programming – learning checkpoint		Programming - Learning checkpoint
19/10/2026	<u>Data representation – Binary</u> . Students will learn how to represent denary numbers between 0 and 255 in 8 bit binary, plus be able to convert denary to binary / binary to denary.	SENECA – 4.1 – Representing Data – 4.1.1 – Binary & 4.1.2 – Converting Binary	
October Half Term			
02/11/2026	<u>Data representation</u> - Binary addition. Students will learn to be able to add two 8 bit binary numbers, identifying overflow errors where appropriate.		
09/11/2026	Bebras National Computing Challenge		
16/11/2026	<u>Data representation – ASCII</u> – Students will learn how text is represented using ASCII and Unicode character sets	SENECA – 4.1.8 – ASCII & 4.1.7 – Character sets	
23/11/2026	<u>Data representation – images</u> – Students will learn how images are represented with bitmaps and vector graphics.		
30/11/2026	<u>Data representation – sound</u> . Students will learn how sound is represented using sound sampling. Data representation – learning checkpoint.	SENECA – 4.1.5 – Representing Sound & 4.1.6 – Representing Images	Data representation – learning checkpoint.
07/12/2026	Cybersecurity – Social engineering . The aim of this lesson is for learners to become aware of how humans can be a weak point in the system, as well as looking at the social engineering tactics deployed by cybercriminals to dupe users into giving away data that could lead to further crime.		
14/12/2026	Cybersecurity – Script kiddies . This lesson allows the learners to explore the concept of hacking and the techniques used by hackers to exploit computer systems.	SENECA – 6.1 – Protecting yourself online – 6.1.3 – Online Safety & 6.1.6 – People online	
Christmas Break			
04/01/2027	Cybersecurity – Malware . The purpose of this lesson is to make learners aware of malware and the different categories of malware, as well as understanding how they work and the potential damage they can do. This lesson focuses more on the technical side than on prevention methods, which will be covered in the next lesson.		

11/01/2027	Revision	AR1 Revision List	AR1
18/01/2027	AR1 in lessons / CR to follow		AR1
25/01/2027	Cybersecurity – Protection against Malware. The aim of this lesson is for learners to develop their understanding of the risks that cyber threats pose to a network, followed by an exploration of some of the more common methods of defending a network against attacks, such as firewalls and anti-malware. The learners will look at the more common threats that exist globally before thinking of the threats at the level of a school network + learning checkpoint	SENECA – 6.1 – Protecting yourself online – 6.1.4 – Malware Viruses & 6.1.5 - Malware	
01/02/2027	Low Level Computing– Logic Gates. The aim of this is lesson is to understand the use of Boolean Logic using True/False and 1/0 and for students to know the shapes of AND, OR and NOT gates. Students will be learn how to explain the outputs given by AND, OR and NOT gates based on their inputs.		
08/02/2027	Low Level Computing - Transistors and Logic. The aim of this lesson is to understand how logic gates can be made from switches, describe a transistor as an electronic switch and be aware of the approximate size of a transistor and how many transistors are contained within a typical device.	SENECA – 3.1 – Hardware – 3.1.6 – Binary Systems & 3.1.7 – Logic Circuits	
February Half Term			
22/02/2027	Low Level Computing - Building Logic Systems. The aim of this lesson is to be able to describe the output of AND, OR and NOT gates based on their inputs and also describe the output of logic systems, with multiple gates connected together. Students will also learn to complete a truth table for a given logic system and predict outputs.		
01/03/2027	Low Level Computing - The CPU. Students will learn to explain the purpose of the CPU as a component that fetches and executes instructions, discuss each step of the fetch – decode – execute cycle and describe what is meant by an embedded system.	SENECA – 3.1 – Hardware – 3.1.2 – CPU & 3.1.5 – Fetch-Decode-Execute Cycle	
08/03/2027	Low Level Computing - CPU Performance. The aim of this lesson is to be able to define the term clock speed, use the unit of Hertz to define clock speed. Students will understand the benefit of a CPU having multiple cores and also the benefit of a CPU having cache memory.		
15/03/2027	Low Level Computing – Hardware components. Students will be able to state the name and define the purpose of other hardware devices that exist alongside the CPU (motherboard, RAM, Graphics Processing Unit).	SENECA – 3.1 Hardware – 3.1.4 – Factors affecting CPU performance & 3.1.3 – Registers of the CPU	
22/03/2027	Learning checkpoint & Critical Reflection		Low Level Computing - Learning checkpoint
Easter Break			
12/04/2027	Creative IT project – lesson 1- Students will learn about the influence of digital media and marketing.	SENECA – 6.1.1 – Digital Footprints	
19/04/2027	Creative IT project – lesson 2 – Students will plan out a marketing or digital media campaign		
26/04/2027	Creative IT project – lesson 3 – Students will learn the skills to create their own digital media or marketing campaign.	SENECA -6.1.2 – Leaving a safe online footprint	
03/05/2027	Creative IT project – lesson 4 – Students will develop and complete their own digital media or marketing campaign.		
10/05/2027	Creative IT project – lesson 5 – Students will learn how to evaluate the influence of their digital media or marketing campaign.	SENECA -6.1.3 – Online safety	

17/05/2027	Creative IT project – lesson 6 – Students will learn how to evaluate the influence of their digital media or marketing campaign.		
24/05/2027	Programming challenges – students will create, debug and expand simple Python programs given to them to meet set criteria.	SENECA – 6.1.6 – People online	
May Half Term			
07/06/2027	Programming challenges – students will create, debug and expand simple Python programs given to them to meet set criteria.		
14/06/2027	AR2 Revision and preparation	AR2 Revision List	AR2
21/06/2027	AR2 in lessons & Critical Reflection Lesson		AR2
28/06/2027	E-Safety Week	SENECA – 6.1.7 Your feelings	
05/07/2027	Enrichment		
12/07/2027	Enrichment		