

KS3 Learning Intentions

Year 7 – Half term 6 Event Driven Scratch What? When? Why?	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Weeks 1 - 7	Understand what is meant by “event-driven” computer programming Remember how to generate a random number in scratch	Understand what a variable is Understand how computer make decisions (IF Statements	Remember what we have learnt so far – event driven programming, random function, variables and IF statements	Understand what a GUI is Understand how to create and use more than one variable to hold data	Understand how change the appearance of a variable	Understand how to use the motion scripts to animate a sprite	Students will be able to reflect on the year’s learning and retrieve key knowledge and understanding.

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Year 8 – Half term 6 MicroBit Madness What? When? Why?	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Weeks 1 - 7	<p>To understand what the Micro:Bit is.</p> <p>To understand the various components of the device.</p> <p>To understand the various programming environments.</p>	<p>To understand how to write a simple program.</p> <p>To understand what compiling is.</p> <p>To understand how to flash the compiled program to the device.</p>	<p>To develop our understanding of programming using the 'blocks' language.</p> <p>To practice the art of decomposition and abstraction to help solve a problem.</p> <p>To understand how to make use of the accelerometer.</p>	<p>Understand how to program the 'Compass' on the Micro:Bit</p> <p>Further develop skills in problem solving (decomposition and abstraction)</p> <p>To further develop our skills in programming using the 'blocks' language.</p>	<p>To develop our skills in programming using the blocks language.</p> <p>To understand the purpose of variables.</p> <p>To develop understanding of coordinates and see how they are used in developing graphical programs.</p>	<p>To develop our skills in programming using the python programming language.</p> <p>To understand some simple python syntax.</p> <p>To realise the similarities with the way we program in python compared to blocks.</p>	<p>Students will be able to reflect on the year's learning and retrieve key knowledge and understanding.</p>

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Year 9 – Half term 6 Cyber Security What? When? Why?	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
	<p>Explain the difference between data and information</p> <p>Critique online services in relation to data privacy</p> <p>Identify what happens to data entered online</p> <p>Explain the need for the Data Protection Act</p>	<p>Recognise how human errors pose security risks to data</p> <p>Implement strategies to minimise the risk of data being compromised through human error</p>	<p>Define hacking in the context of cybersecurity</p> <p>Explain how a DDoS attack can impact users of online services</p> <p>Identify strategies to reduce the chance of a brute force attack being successful</p> <p>Explain the need for the Computer Misuse Act</p>	<p>List the common malware threats</p> <p>Examine how different types of malware cause problems for computer systems</p> <p>Question how malicious bots can have an impact on societal issues</p>	<p>Compare security threats against probability and potential impact to organisations</p> <p>Identify how networks can be protected from common security threats</p>	<p>Identify the most effective methods of preventing cyberattacks</p>	<p>Students will be able to reflect on the year’s learning and retrieve key knowledge and understanding.</p>