

Programme of Study - Computing

Years 7 and 8	Unit Titles	Learning Objectives	Assessment
Computing 2019-20	Introduction – Code Monkey	Pupils will learn:	Map Skills Assessment:
Lesson 1		L1 - Rules for using IT rooms/setup file structure/basic coding logic.	(L1. 4 & 5)design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
Lesson 2	E-safety		
Lesson 3	Light-Bot	L2 - Staying safe using electronic equipment.	(L12)understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem
Lesson 4	Dragons Den project	L3 – Introduction to computer programming and thinking logically.	(L3, 6, 7, 8 & 9)use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions
Lesson 5	MS Excel		
Lesson 6	HTML		
Lesson 7	Introduction/Operators	L4 – Design a product and present collaboratively.	(L6, 17 & 18)understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]
Lesson 8	HTML Web page		
Lesson 9	Python	L5 – Introduction to spreadsheets.	(L10 & 11)understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems
Lesson 10	Introduction/Iterations		
Lesson 11	Python Selection/Variables		
Lesson 12	Hardware		
Lesson 13	Software	L6 – Introduction to HTML and operators.	
Lesson 14	Algorithms/Flowcharts	L7 – HTML produce a basic web page.	
Lesson 15	App Introduction/Creation	L8 – Introduction to Python.	
Lesson 16	App Menu Screen		
Lesson 17	App Map/Map Points	L9 – Using Python selection and variables	(L13, 14 & 15)understand how instructions are stored
Lesson 18	App Standard Screen		
Lesson 19	Revision for Assessment		
Lesson 20	Final Assessment		

Assessment after Python carried out here.

<p>Lesson 15</p> <p>Lesson 16</p> <p>Lesson 17</p> <p>Lesson 18</p>		<p>L10 – Understanding hardware.</p> <p>L11 – Understanding basics types of software.</p> <p>L12 – Introduction to algorithms using flowcharts.</p> <p>L13 – Introduction to Apps and creating an App.</p> <p>L14 – Creating App menu screen Introduction.</p> <p>L15 – Production of App Map with map points.</p> <p>L16 – Creation of App standard screen.</p> <p>L17 – Revision for assessment.</p> <p>L18 – Assessment.</p>	<p>and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits</p> <p>(L4, 13 & 16)undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p> <p>(L4 & 16)create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability</p> <p>(L2) understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns.</p>
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