Department:

Computing

#### Year 9

Timing	Unit Title	Key Question	Knowledge	Assessing Understanding
Autumn Half Term 1	S – Coding 2	How do I write programs in real code?	<ul> <li>Parameters – using and adding more</li> <li>Python IF statement syntax</li> <li>Expert systems: <ul> <li>Theory – facts and rules</li> <li>Binary searching</li> <li>Practical programming.</li> </ul> </li> </ul>	<ul> <li>How understanding is assessed:</li> <li>an online test checks girls final understanding of the concepts and syntax</li> <li>progress is monitored and recorded during lessons.</li> <li>Skills <ul> <li>new Python Syntax and instructions</li> <li>further debugging.</li> </ul> </li> <li>Assessment point information <ul> <li>Marks for the test will feed into an Assessment Point BM (Behaviour Management) data will be collected on the accuracy of their work and their ability to debug their own work</li> </ul> </li> </ul>
Autumn Half Term 1	B - BEBRAS	How are my programming skills?	<ul> <li>Computational Thinking</li> <li>Simple jigsaw coding</li> <li>Knowledge of past BEBRAS questions</li> </ul>	<ul> <li>How understanding is assessed:</li> <li>Live BEBRAS competition</li> <li>Skills</li> <li>computational</li> </ul>

				Assessment point information Marks for the test will feed into an Assessment Point BM (Behaviour Management) data will be collected on the accuracy of their work and their ability to debug their own work
Autumn Half Term 2	A4 – Apps 4	How can I make my Apps more clever?	<ul> <li>Further jQuery techniques, including:         <ul> <li>Animation</li> <li>Chaining</li> <li>Fading / hide/show.</li> </ul> </li> <li>Further Appshed integration:         <ul> <li>Google Docs</li> <li>Other online sites.</li> </ul> </li> <li>Selection and other programming tools</li> </ul>	<ul> <li>How understanding is assessed:         <ul> <li>motivation and progress data is collected during lessons.</li> </ul> </li> <li>Skills         <ul> <li>Javascript</li> <li>Appshed skills</li> </ul> </li> <li>Assessment point information         <ul> <li>BM Data from lessons is fed in to the first AP</li> </ul> </li> </ul>

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Autumn Term 2 / Spring Term 1	C – Project	How do I make a program for someone else to use?	<ul> <li>Designing an App</li> <li>Appshed practical skills, including:         <ul> <li>use of variables and other features</li> <li>Javascript</li> <li>CSS</li> </ul> </li> <li>Testing – formal and otherwise</li> </ul>	<ul> <li>How understanding is assessed:</li> <li>the final project is tested and reviewed</li> <li>the documentation for testing is formally marked</li> <li>students review each other's work, and improvements are then made</li> <li>students test their own work, afterwards making any necessary improvements.</li> </ul> Skills <ul> <li>Practical Appshed skills</li> <li>CSS</li> <li>Javascript</li> </ul> Assessment point information Marks from the final hand in of the Project and documentation feed into an Assessment Point. BM data will be collected on their progress while working.
Sprint Half Term 2	G – Modelling 3	How do I make my models even smarter?	<ul> <li>Basic modelling skills from Y7 and Y8</li> <li>Further IF statements</li> <li>VLOOKPUPs</li> <li>Best use of Conditional Formatting</li> <li>Real-world problems and their translation into a model</li> </ul>	<ul> <li>How understanding is assessed: <ul> <li>an assessed exercise checks their ability to use the new and earlier techniques</li> <li>progress data is collected during lessons</li> <li>students attempt to 'mark' faulty versions.</li> </ul> </li> <li>Skills <ul> <li>Basic modelling skills</li> <li>VLOOKUPs</li> <li>Working with real problems</li> </ul> </li> <li>Assessment point information <ul> <li>Marks for the assessed exercise will feed into an Assessment Point. BM data will be collected on their progress while working.</li> </ul> </li> </ul>

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Summer Half term 1	R – Artificial Intelligence	What is AI and what an it do?	<ul> <li>Concepts and practical applications of AI</li> <li>Expert Systems</li> <li>Neural Networks</li> </ul>	<ul> <li>How understanding is assessed:</li> <li>Progress is monitored in lessons</li> <li>Skills <ul> <li>Use of basic AI interfaces</li> </ul> </li> <li>Assessment point information <ul> <li>BM data collected from these lessons feeds into Assessment Points.</li> </ul> </li> </ul>
Summer Half Term 2	P – Photography and Photoshop	How do I produce quality assets?	<ul> <li>Principles of good Photography, including:         <ul> <li>Framing</li> <li>Rule of thirds</li> <li>Get in Close</li> <li>Colours.</li> </ul> </li> <li>Photoshop techniques, including:         <ul> <li>Cropping</li> <li>Clone Stamp</li> <li>Using adjustment layers.</li> </ul> </li> </ul>	<ul> <li>How understanding is assessed:</li> <li>progress in the lesson is recorded</li> <li>students' portfolios are checked by each other best examples exhibited.</li> <li>Skills</li> <li>Basic photography skills</li> <li>Image Manipulation skills</li> </ul> Assessment point information This unit follows the last of the Assessment Points.