



Key Stage 3						
Year 7	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Unit Title	Using Office	Using Microsoft	Networks, Hardware & Software	Programming Block Code 2D with Scratch	Programming block 3D with Minecraft	Spreadsheet and data Manipulation
<p><b>Key Knowledge and understanding that enables skill building.</b></p>	<p>By the end of this unit, we expect students will know and understand key features of safety in a computer room and how to use office 365 from outlook to one drive. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> <li>• How to log on, including Health and safety.</li> <li>• How to set up folders, Save, copy, cut and delete.</li> <li>• How to use One drive and keyboard short cuts.</li> <li>• How to use Teams.</li> <li>• How to use Email and Email Etiquette.</li> <li>• How to use email features, Reply, forward, Attachments.</li> <li>• How to search the internet effectively</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of how multiple software can be used for one purpose. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> <li>• Microsoft features and Icons.</li> <li>• How to use Word – text, tables, header and footers, inserting images and templates.</li> <li>• How to track changes in Word.</li> <li>• How to use Power point – text, images, inserting/embedding</li> <li>• What E safety is and how to keep themselves safe.</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of the computer and how it works and connects with networks. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• What Hardware and Software are.</li> <li>• What Inputs and outputs are.</li> <li>• Storage and methods.</li> <li>• Types of networks.</li> <li>• The internet.</li> <li>• IP addresses.</li> <li>• Tracking Changes.</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of programming in 2D using variables, loops, selection and Boolean operators/logic to create a playable game. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• What assets are and how to add them.</li> <li>• What Movements and Loops are.</li> <li>• Variables sequence.</li> <li>• Boolean logic sequence.</li> <li>• Selection sequence.</li> <li>• Clones-Debugging.</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of programming in 3D using variables, loops, selection and Boolean operators/logic to create a playable game. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• 3D control and Movement</li> <li>• Pattern recognition and movement.</li> <li>• Loops and conditions</li> <li>• Nested Loops and conditions</li> <li>• While Loops</li> <li>• Debugging-Syntax</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of working with data in an excel spreadsheet; how to enter data and manipulate data, including formulae. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• Spreadsheets and adding data.</li> <li>• Basic formula in spreadsheets.</li> <li>• Simple and Advanced formulae.</li> <li>• Creating Graphs</li> <li>• Using Sort and Filters</li> <li>• Data Manipulation</li> </ul>



<b>Vocabulary</b>	There is a full vocabulary bank associated with our teaching of these units. These can be found on students' books and in our detailed SOL. They are also on our subject TEAMs page.					
<b>Assessment</b>	Throughout these units, and throughout the year, students will be formatively assessed on their lessons to ensure that teaching is bespoke to each of their development needs. Once the unit of work is complete, it will be assessed using end of half term assessment criteria. These results will be reported to parents. All assessment results, plus formative assessment from practical lessons, help us to adapt our curriculum implementation to ensure that we support our students with their knowledge, understanding and ability to 'do'.					
<b>Year 8</b>	<b>Half Term 1</b>	<b>Half Term 2</b>	<b>Half Term 3</b>	<b>Half Term 4</b>	<b>Half Term 5</b>	<b>Half Term 6</b>
<b>Unit Title</b>	<b>Computing Systems</b>	<b>Binary</b>	<b>Python 1</b>	<b>Python 2</b>	<b>Web site Creation</b>	<b>Database and data Manipulation</b>
<b>Key Knowledge and understanding that enables skill building.</b>	<p>By the end of this unit, we expect students will know and understand key features of folder structures and how to use office 365, using favourites and computer systems. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> <li>• How to log on, Save and Organise increasing files.</li> <li>• How to use One drive and Teams to Upload/download and shar files.</li> <li>• How to use Favourites</li> <li>• What a Central Processing Unit is and why it is important.</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of data representation and how computers operate and communicate, processing instructions and data. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• Representation data in Binary</li> <li>• Binary</li> <li>• Adding Binary</li> <li>• Binary Hexadecimal</li> <li>• Logic gates</li> <li>• Computer units</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• Programming Variable sequence.</li> <li>• Programming Strings/Integers - 1</li> <li>• Programming Strings/Integers - 2</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• Programming Decompose Pseudocode</li> <li>• Programming Boolean logic While Loop.</li> <li>• Programming slicing strings</li> <li>• Nested loops</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of creating a webpage and embedding content. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• Basic HTML codes</li> <li>• Web site creation introduction</li> <li>• interpretation of client brief.</li> <li>• Pre-planning</li> <li>• Creating website</li> <li>• Creating website</li> <li>• Evaluation</li> </ul>	<p>By the end of this unit, we expect students will know and understand key features of databases and manipulating data. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"> <li>• Database introducing adding data.</li> <li>• Editing data.</li> <li>• Deleting data</li> <li>• Running queries</li> <li>• Creating reports</li> <li>• Mail merge.</li> </ul>



	<ul style="list-style-type: none"> <li>• How to use Instructions: Fetch, decode, execute</li> <li>• What ROM and RAM are.</li> <li>• Different Software Types.</li> </ul>		<ul style="list-style-type: none"> <li>• Programming iteration/loops sequence.</li> <li>• Programming operators</li> <li>• Programming nested loops</li> <li>• Programming selection</li> </ul>	<ul style="list-style-type: none"> <li>• Slicing</li> <li>• Import and Turtle Library.</li> <li>• Programming using import library.</li> </ul>		
<b>Vocabulary</b>	There is a full vocabulary bank associated with our teaching of these units. These can be found on students' books and in our detailed SOL. They are also on our subject TEAMS page.					
<b>Assessment</b>	Throughout these units, and throughout the year, students will be formatively assessed on their lessons to ensure that teaching is bespoke to each of their development needs. Once the unit of work is complete, it will be assessed using end of half term assessment criteria. These results will be reported to parents. All assessment results, plus formative assessment from practical lessons, help us to adapt our curriculum implementation to ensure that we support our students with their knowledge, understanding and ability to 'do'.					

Year 9	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Unit Title	Computing Systems	Digital graphics	Animation	Advanced Python 1	Advanced Python 2	Raspberry Programming



<b>Key Knowledge and understanding that enables skill building.</b>	<p>By the end of this unit, we expect students will know and understand key features of folder structures, compressing work and how to use office 365 and system security. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"><li>• Email organisation</li><li>• Email Compressing</li><li>• System security Malware,</li><li>• System security By-pass, Phishing threats.</li></ul>	<p>By the end of this unit, we expect students will know and understand key features of creating digital graphics, their properties and exporting files. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"><li>• How to interpret and use a client brief.</li><li>• Pre-planning documents.</li><li>• Creating a Graphic</li><li>• File types and exporting graphic-graphical files types.</li><li>• How to carry out Evaluation</li></ul>	<p>By the end of this unit, we expect students will know and understand key features of creating digital animations, their properties and exporting files. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"><li>• How to create an animation</li><li>• File types and exporting graphic. Animation/video file types.</li><li>• How to carry out Evaluation</li></ul>	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"><li>• Programming: Decompose Pseudocode</li><li>• Abstraction</li><li>• Programming: lists slicing</li><li>• Programming: sorting lists</li><li>• Programming: adding to a list</li><li>• Programming: file handles</li></ul>	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"><li>• How to create Lists.</li><li>• Programming: creating text files.</li><li>• Programming: using methods.</li><li>• Programming: creating CVS files.</li><li>• Programming: creating pickle files.</li></ul>	<p>By the end of this unit, we expect students will know and understand key features of programming code to control outputs in the real world, controlling LED lights and LCD's. Lesson Objectives in our Medium-Term Plans are sequenced to ensure that students know and understand the following and, where applicable, can use them:</p> <ul style="list-style-type: none"><li>• Controlling LED output using while loops</li><li>• Controlling LED using buttons using methods.</li><li>• Controlling LCD Controlling graphical user interface output</li><li>• Controlling LCD/RGB Controlling graphical user interface output</li></ul>
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**Hazel Wood**  
High School

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<b>Assessment</b>	Throughout these units, and throughout the year, students will be formatively assessed on their lessons to ensure that teaching is bespoke to each of their development needs. Once the unit of work is complete, it will be assessed using end of half term assessment criteria. These results will be reported to parents. All assessment results, plus formative assessment from practical lessons, help us to adapt our curriculum implementation to ensure that we support our students with their knowledge, understanding and ability to 'do'.

