



Hazel Wood
High School

Part of the

Oak



Learning Partnership

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Computing
Curriculum Overview
**Hazel Wood
High School**



Our Curriculum Content:

Our Computing curriculum allows young people to become digitally literate in the use of hardware, software and also in computing. Students will develop their use in various pieces of software allowing them to access information and communication technology at a level suitable for the future workplace and as active participants in a digital world. Students will also develop their use of computational thinking and creativity. They will become able to express themselves and develop their ideas, creating programs, systems and a range of content. Computing is the pathway to future qualifications and careers in computing.

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 Code Scratch/Python	Spreadsheet and data Manipulation
Key knowledge and understanding that enables skill building.	By the end of this unit, we expect students will know and understand key features of safety in a computer room, creating folder structures and saving work correctly, how to use office 365 from outlook to one drive. Lesson Objectives in our Medium-Term Plans are	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 formulated to ensure that students know and understand the following: <ul style="list-style-type: none"> • Micro soft features and Icons. 	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 formulated to ensure that students know and understand the following:	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 formulated to ensure that	By the end of this unit, we expect students will know and understand key features of programming i.e., variables, loops, selection and Boolean operators/logic to create a playable game. Lesson Objectives in our Medium-Term Plans are	By the end of this unit, we expect students will know and understand key features of working with data in excel, a spreadsheet piece of software. How to enter data and manipulate data including formulae. Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and



	<p>formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Logging on. Health and safety. • setting up folders and one drive. • Using Teams. • Using Email and Email Etiquette, Reply, forward, Attachments. • Search the internet effectively • E safety (Malware/social engineering threats) 	<ul style="list-style-type: none"> • Using Word – text, tables. Header and footers. • Using Word – inserting images and templates. • Tracking Changes • Using Power point – text, images. • Using power point – inserting/embedding 	<ul style="list-style-type: none"> • Hardware and Software. • Inputs and outputs. • Storage and methods. • Types of networks • The internet. • IP addresses • Tracking Changes 	<p>students know and understand the following:</p> <ul style="list-style-type: none"> • Adding assets. • Movements and Loops • Variables sequence. • Boolean logic sequence. • Selection sequence. • Clones- Debugging 	<p>formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Adding assets. • Movements and Loops • Variables sequence. • Boolean logic sequence. • Selection sequence. <p>Debugging</p>	<p>understand the following:</p> <ul style="list-style-type: none"> • Spreadsheet introduction. Adding data. • Basic formula. • Simple and Advanced formulae. • Creating Graphs • Using Sort and Filters • Data Manipulation
Vocabulary	<p>There is a full vocabulary bank associated with our teaching of these units. These can be found in students' books and in our detailed Medium-Term plans. They are also on our subject TEAMS page.</p>					
Assessment	<p>Throughout these units, and throughout the year, students will be formatively assessed in their lessons to ensure that teaching is bespoke to each of their development needs. Homework is issued fortnightly recalling and retrieving lesson content. Once the unit of work is complete it will be assessed using assessment criteria. All assessment results, plus formative assessment from practical lessons, will be used to report to parents during whole school reporting times.</p>					



Year 8	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Unit Title	Computing Systems	Binary	Python 1	Python 2	Web site Creation	Database and data Manipulation
Key Knowledge and understanding that enables skill building.	<p>By the end of this unit, we expect students will know and understand key features of folder structures, use office 365, using favourites and computer systems.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Logging on, Saving and Organising. • Using One drive and Teams Upload/download and sharing files. • Using Favourites • Central Processing Unit 	<p>By the end of this unit, we expect students will know and understand key features of data representation and how computers operate, communicate processing instructions and data.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Representation data in Binary • Using Binary • Adding Binary • Binary Hexadecimal • Logic gates • Computer units 	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Programming Variable sequence. • Programming Strings/Integers - 1 • Programming Strings/Integers - 2 • Programming iteration/loops sequence. 	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Programming Decompose Pseudocode • Programming Boolean logic While Loop. • Programming slicing strings • Nested loops • Slicing • Introduction to import and Turtle Library. 	<p>By the end of this unit, we expect students will know and understand key features of creating a webpage and embedding content.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Basic HTML codes • Web site creation introduction • interpretation of client brief. • Pre-planning • Creating website 	<p>By the end of this unit, we expect students will know and understand key features of databases and manipulating data.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Database introducing adding data. • Editing data. • Deleting data • Running queries • Creating reports • Using mail merge.



	<ul style="list-style-type: none"> • Instructions Fetch, decode, execute • ROM and RAM • Software Types 		<ul style="list-style-type: none"> • Programming operators • Programming nested loops • Programming selection 	<ul style="list-style-type: none"> • Programming using import library. 	<ul style="list-style-type: none"> • Creating website • Evaluation 	
Vocabulary	There is a full vocabulary bank associated with our teaching of these units. These can be found in students' books and in our detailed MEDIUM-TERM PLANS. They are also on our subject TEAMS page.					
Assessment	Throughout these units, and throughout the year, students will be formatively assessed in their lessons to ensure that teaching is bespoke to each of their development needs. Homework is issued fortnightly recalling and retrieving lesson content. Once the unit of work is complete it will be assessed using assessment criteria. All assessment results, plus formative assessment from practical lessons, will be used to report to parents during whole school reporting times.					

Year 9	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Unit Title	Computing Systems and Digital graphics	Digital graphics	Advanced Python 1	Advanced Python 2	Game creation	Raspberry Programming
Key knowledge and understanding that enables skill building.	<p>By the end of this unit, we expect students will know and understand key features of folder structures and compressing work. Students will then move onto planning a digital graphics</p> <p>Lesson Objectives in our Medium-Term Plans are formulated</p>	<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.</p> <p>Lesson Objectives in our Medium-</p>	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and</p>	<p>By the end of this unit, we expect students will know and understand key features of programming in Python language.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and</p>	<p>By the end of this unit, we expect students will know and understand key concepts of programming to create a playable game.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to</p>	<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.</p> <p>Lesson Objectives in our Medium-Term Plans are</p>



	<p>to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Logging on, Saving and Organising. • Email/Compressing • interpretation of client brief. • Pre-planning documents. 	<p>Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Creating a Graphic • File types and exporting graphic-graphical file types. • Evaluation 	<p>understand the following:</p> <ul style="list-style-type: none"> • Programming Decompose Pseudocode • Abstraction • Programming-lists slicing • Programming sorting lists • Programming adding to a list • Programming file handles 	<p>understand the following:</p> <ul style="list-style-type: none"> • Creating Lists. • Programming creating text files. • Programming using methods. • Programming creating cvs files. • Programming creating pickle files. 	<p>ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Planning a game • Creating flow charts • Creating algorithms • Creating a game 	<p>formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none"> • Controlling LED output using while loops • Controlling LED using buttons using methods. • Controlling LCD Controlling graphical user interface output • Controlling LCD/RGB Controlling graphical user interface output
Vocabulary	<p>There is a full vocabulary bank associated with our teaching of these units. These can be found in students' books and in our detailed MEDIUM-TERM PLANS. They are also on our subject TEAMS page.</p>					
Assessment	<p>Throughout these units, and throughout the year, students will be formatively assessed in their lessons to ensure that teaching is bespoke to each of their development needs. Homework is issued fortnightly recalling and retrieving lesson content. Once the unit of work is complete it will be assessed using assessment criteria. All assessment results, plus formative assessment from practical lessons, will be used to report to parents during whole school reporting times.</p>					



Our Curriculum Content:

This qualification allows students to explore the exciting world of the media industry and computers. Students will explore digital graphics and how brands use brand identity and target audiences. Students will create a brand identity and graphics. Students will also explore the world of games and game design. Students will look at sequencing instructions to control events from user interactions from inputs that give an output using algorithms. The students will learn and develop all these skills, knowledge and understanding while creating industry-ready products in our purpose-built and fully equipped computing classroom.

OCR Cambridge National in Creative iMedia						
Year 10	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Unit Title	Unit R094 Visual identity and digital graphics Coursework internally assessed: GLH: 30			Unit R099 Digital games Coursework internally assessed: GLH: 42		
	By the end of this unit, we expect students will know and understand key features of visual, brand identity and their purpose. Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and	By the end of this unit, we expect students will know and understand features of brand identity, their purpose and the factors influencing product design. Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:	By the end of this unit, we expect students will know and understand pre-production planning documents and legal considerations including intellectual property. Lesson Objectives in our Medium-Term Plans are	By the end of this unit, we expect students will know and understand the media industry, covering both traditional and new media sectors such as game design. Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:	By the end of this unit, we expect students will know and understand the factors that influence product design and how games are. Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and	By the end of this unit, we expect students will know and understand preplanning documents. Students will be able to review and check games. Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:



	<p>understand the following:</p> <ul style="list-style-type: none">• Developing brand identity• How planning documents are used.• Purpose and elements of brand identity• How Brand identity is created.	<ul style="list-style-type: none">• Properties of digital graphics and use of assets• Graphic design and conventions• Techniques to plan visual identity and digital graphics• Tools and techniques of imaging editing software used to create digital graphics.	<p>formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none">• Technical skills to source, create and prepare assets for use within digital graphics• Techniques to save and export visual identity and digital graphics <p>Coursework Lessons</p> <ul style="list-style-type: none">• Creating planning documents.• Creating an advert.	<ul style="list-style-type: none">• How style, content and layout are linked to the purpose• Client requirements and how they are defined• Audience demographics and segmentation• Research methods, sources and types of data• Techniques to explain game concepts <p>Technical skills to create digital games.</p>	<p>understand the following:</p> <ul style="list-style-type: none">• Work planning• Documents used to support ideas generation• Documents used to design and plan media products• The legal issues that affect media• Techniques to test/check and review digital games	<ul style="list-style-type: none">• Techniques to explain game concepts• Technical skills to create digital games
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Vocabulary	There is a full vocabulary bank associated with our teaching of this unit. These can be found in students' books and in our detailed MEDIUM-TERM PLANS. They are also on our subject TEAMS page.					
Assessment	<p>Throughout this unit, and throughout the year, students will be formatively assessed on their theory lessons to ensure that teaching is bespoke to each of their development needs. Students will also complete coursework tasks which will be assessed and submitted for part of their final grade.</p> <p>Homework is issued fortnightly recalling and retrieving lesson content.</p> <p>Students will, once the unit of coursework is complete, be assessed using end of unit assessment criteria. The grades for this coursework will be reported to parents. All assessment results, plus formative assessment from practical lessons, will be used to create a realistic expected grade that we will report to parents at the end of the year.</p>					
Year 11	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Unit Title	Unit R099 Digital games Coursework Internally assessed: GLH: 42 (continued from Year 10)	Unit R093: Creative iMedia in the media industry External examination: GLH: 48				
Key knowledge and understanding that enables skill building	By the end of this unit, we expect students will know and understand the factors that influence product design	By the end of this unit, we expect students will know and understand testing and evaluation of digital games. Students will also develop knowledge and understand exam	By the end of this unit, we expect students will know and understand testing and evaluation of digital games. Students will	By the end of this unit, we expect students will know and understand testing and evaluation of digital games. Students will also develop knowledge and understand exam	By the end of this unit, we expect students will know and understand testing and evaluation of digital games. Students will also develop	



	<p>and how games are.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none">• Techniques to explain game concepts• Technical skills to create digital games	<p>content, preparing for the final exam.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none">• Topic Area 1: The media industry	<p>also develop knowledge and understand exam content, preparing for the final exam.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none">• Topic Area 2: Factors influencing product design	<p>content, preparing for the final exam.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none">• Topic Area 3: Pre-production planning• Topic Area 4: Distribution considerations	<p>knowledge and understand exam content, preparing for the final exam.</p> <p>Lesson Objectives in our Medium-Term Plans are formulated to ensure that students know and understand the following:</p> <ul style="list-style-type: none">• Revision• Mock papers	
Vocabulary	There is a full vocabulary bank associated with our teaching of this unit. These can be found in students' books and in our detailed Medium-Term plans. They are also on our subject TEAMS page.					



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Assessment

During the exam theory content lessons students will be formatively assessed on their theory lessons to ensure that teaching is bespoke to each of their development needs. Students will also complete coursework tasks which will be assessed and submitted for part of their final grade.

Homework is issued fortnightly recalling and retrieving lesson content.

Students will, once the unit of coursework is complete, be assessed using end of unit assessment criteria. The grades for this coursework will be reported to parents. All assessment results, plus formative assessment from practical lessons, will be used to create a realistic expected grade that we will report to parents at the end of the year.

