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Year 5

Scheme of Learning	Welcome to the Web	King Arthur	Presentation Skills
Knowledge	• To understand the many positive uses of the internet. • To recognise what a website might look like. • To know what a hyperlink looks like. • To identify the basic features of a web browser. • To understand how to search for reliable information. • To be able to identify a number of different file types that might be saved from the internet.	• To identify what is meant by logical thinking. • To understand how to approach problems logically to help solve them quicker. • To use problem solving skills to crack codes and secrets. • To understand what is meant by the term 'algorithm' • To use a computer program to help display my algorithms. • To be able to identify what shapes might be made from certain algorithm instructions.	• To identify careers that might sue presentation tools. • To apply word processing skills to format text and images to present professionally. • To create a presentation on a theme/topic. • To know how to add animations to slideshows. • To practice presentation skills to create interactive quizzes.
Sequencing Statements/ Cross Curricular Learning			**Careers – Which jobs use PowerPoint/ Slides?**
Enrichment Opportunities and British Values			

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Year 5

Scheme of Learning	China & India 	Spreadsheets 
Knowledge	• To understand that there are different search engines used across the world. • To recognise some of the main differences between the search engines. • To reflect on the most effective web browsers and why people may prefer ones over others. • To identify what is meant by internet filtering. • To understand how search engine algorithms work using key words. • To recognise potential bias on websites.	• To understand how to input data in to spreadsheets. • To begin to understand the use of formulae in spreadsheets. • To understand how to order and present data based on calculations. • To understand the processes involved in adding, editing and calculating data within spreadsheets.
Sequencing Statements/ Cross Curricular Learning	• Understanding Algorithms - King Arthur (Year 5)	
Enrichment Opportunities and British Values		

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Year 6

Scheme of Learning	 Online Safety: Cyberbullying	 Great Journeys	 Spreadsheets
Knowledge	• To recognise similarities and differences between bullying and cyberbullying. • Recognise significant features of trusted websites that are reliable to use. • To recognise the potential issues with online relationships and sharing of personal information. • To begin to identify the role of media in gender stereotyping. • To offer advice that demonstrates our learning and understanding about online safety.	• To understand the difference between the internet and world wide web. • To understand using examples what a wiki is and how they can be created and edited. • To understand how collaboration can be beneficial to all when using online projects and communities. • To explore the use of blogs and vlogs and why they can help to develop career paths.	• To retrieve the basic functions of spreadsheets from prior learning and instruct others to recall significant information. • To use spreadsheets to solve a problem. • To begin interpreting data and make comparisons. • To plan and budget using a spreadsheet. • To calculate total costs using prices and quantities of items needed. • To apply learning to create an independent spreadsheet that serves an intended purpose.
Sequencing Statements/ Cross Curricular Learning			• Spreadsheets (Year 5)
Enrichment Opportunities and British Values			

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Year 6

Scheme of Learning	Coding Principles in Scratch	Africa
Knowledge	• To animate a scene using Scratch. • To understand how to broadcast messages. • To identify ways in which to sequence stories using Scratch. • To add audio files to Scratch programs. • To be able to create interactive stories and games using Scratch.	• To identify significant apps that we regularly use. • To begin categorising those apps as to how they benefit our lives. • To identify how apps are created and use data. • To begin to recognise purposes of the most popular apps. • To identify times at which people will most use specific apps and identify patterns between these types of applications. • Begin to identify and reflect on the apps that you use most.
Sequencing Statements/ Cross Curricular Learning		
Enrichment Opportunities and British Values		

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Year 7

Scheme of Learning	Online Safety: Digital Footprints	3D Design using Sketchup	Hardware and Computer Systems
Knowledge	• To understand what a computer virus is and how they might affect a computer system either in the workplace, school or at home. • To begin to reflect on ways of protecting ourselves from computer viruses and malware. • To recognise the features within a 'strong' password and which words/phrases that might be best avoided. • To know what a digital footprint is and the potential long term impacts.	• To understand what is meant by 3D modelling. • To be able to describe several examples of 3D design. • To draw shapes in 2D and transform them in to 3D. • To practice the construction of items within Sketchup and add colours and textures. • Use Sketchup to solve a problem and create a proposal for a piece of Oakfield Academy play equipment.	• To understand what is meant by hardware and software. • To identify what is meant by and provide examples of input and output devices. • To explain what the function of the CPU is and how it relates to other parts of a computer. • To recognise the different capabilities of storage devices and how these have evolved over recent years. • To identify the advantages of cloud storage. • To recognise how gaming PCs might differ from regular PCs and why someone would need these changes to play regularly.
Sequencing Statements/ Cross Curricular Learning	Welcome to the Web (Year 5) Online Safety: Cyberbullying (Year 6)	**Careers - Jobs that use 3d design and modelling.**	
Enrichment Opportunities and British Values			

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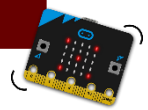
Year 7

Scheme of Learning	Go with the Flow (Charts) 	Web Design 	micro:bit Micro:Bits 
Knowledge	• To understand the purpose and use of flowcharts in computing. • To recognise the different symbols used within flowcharts. • To be able to create a flowchart from scratch that demonstrates a certain problem in need of solving. • How to transfer an algorithm in to a flowchart. • To use flowcharts in real life scenarios to understand their relevance and significance.	• To identify the significance of websites in today's society. • To explore careers that rely on website design. • To explore online website creators. • To recognise a basic structure to a website in terms of pages and professional styles. • To begin to build a website designed for a purpose.	• To understand the component parts to a Micro:Bit. • To know how to use 'if' to make branching decisions in a computer program. • To design and develop modular programs that use procedures or functions. • To understand the hardware and software components that make up computer systems. • To undertake creative projects to achieve challenging goals. • To understand sorting algorithms that reflect computational thinking.
Sequencing Statements/ Cross Curricular Learning	King Arthur (Year 5)	Web Design – Using HTML and CSS (Year 8)	
Enrichment Opportunities and British Values			

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Year 7

Scheme of Learning	Python: Introduction	3D Design using Sketchup
Knowledge	• To identify Python as an example of a programming language. • To know how to write a first computer program. • To recognise the purpose and use of If ..Else conditions. • To recognise how to plan and structure a Chat bot conversation. • To provide sensible and constructive feedback of someone else's work. • To understand the importance of feedback in the process of developing and solving problems.	• To understand how 3d modelling is used within careers. • To retrieve prior learning from Sketchup about creation of designs and features of structures. • To demonstrate understanding of Sketchup to create a design proposal that meets specific criteria. • To display proposal with justified and explained annotations as to the choices you have made for your chosen property design.
Sequencing Statements/ Cross Curricular Learning		**Careers - Jobs that use 3d design and modelling.**
Enrichment Opportunities and British Values		

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Year 8

Scheme of Learning	Pseudocode and Algorithms	Drawing with Python	Web Design – Using HTML & CSS
Knowledge	• To explore the increasing use of social media. • To recognise how social media can and should be a significant part of our lives. • To understand the ever changing purpose of social media. • To understand the impacts of sexting • To understand the age restrictions on social media and the reasons why they are in place for safety. • To produce clearly presented information to educate others about the importance of staying safe on different social media.	• To use prior learning of Python and understand how to apply it when drawing and creating different shapes. • To edit the thickness and colours of shapes created. • To recognise the purpose of a FOR loop to create a variety of shapes and improving efficiency of coding. • To create variety of shapes for a birthday card that also includes displaying of text by using Python to create it.	• To understand the meaning of HTML. • To care a very simple webpage using HTML. • To use tags to build up a design of a webpage. • To insert images in to webpages and create hyperlinks. • To understand what CSS is and how it can affect the formatting of a HTML page. • To recognise the impact of using CSS instead of individual formatting tags. • To design their own webpages that are connected to a CSS file and are suitable for a purpose.
Sequencing Statements/ Cross Curricular Learning	Welcome to the Web (Year 5) Online Safety: Cyberbullying (Year 6) Online Safety: Digital Footprints (Year 7) **Careers: Which jobs now rely on social media?** **PSHE: Healthy Relationships**	Python: Introduction (Year 7)	Web Design (Year 7)
Enrichment Opportunities and British Values			

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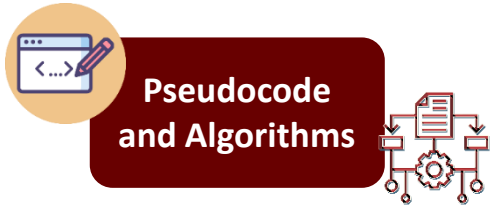
Year 8

Scheme of Learning	
Knowledge	• To understand the definition of pseudocode. • To recognise how appropriate pseudocode can be used to solve problems. • To identify how to use IF…THEN…ELSE… conditions within pseudocode. • To understand how a WHILE loop can be used. • To understand that there are a variety of different sorting and searching algorithms. • To recognise how a bubble sorting algorithm works. • To be able to describe a bucket and insertion sort. • To recognise different types of searching algorithms.
Sequencing Statements/ Cross Curricular Learning	
Enrichment Opportunities and British Values	

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