



Key content – knowledge and skills	National Curriculum focus
<p>Pupils will be introduced to e safety and understand the dangers of the internet as well as the benefits.</p> <p>Pupils will use block programming software (Scratch) to Design, create, Test, Evaluate their own game. They will learn about creating loops, nested loops, If statements</p> <p>Pupils will understand the importance in the use of spreadsheets in the industry and how business use them. They will manipulate data use formulas, counif, vlookup, fomattng</p> <p>Flowol (Algorithms) Pupils will create algorithms and flowcharts based on real life scenarios and understand how to use flowchart symbols to represent a simple program and instructions.</p> <p>Photoshop (Graphics) Pupils will understand how photos are edited in the real world and how it can impact people in different ways. Skills will be taught how to change manipulate images and how it is used in the industry.</p>	<ul style="list-style-type: none"> • Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems • 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 • Understand how instructions are stored 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 • 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 • Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability • 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 concern

Key assessment points

Pupils will be assessed over 5 topics in the academic year. One piece of work will be a project (Formative Assessment and there will be a summative assessment at the end of each topic, in the form of a MCQ and written exam questions.

Christian ethos

Pupils will be given the opportunity to see links to Christian ethos throughout the academic year. E safety will cover moral and ethical and religious issues to consider when using social media and the internet.

Both the curriculum and group work should develop in students a responsible moral attitude as members of a responsible, safe and considerate online world, recognising that Christian ethics are as important online as offline. Students will understand and be able to recognise and also discuss how Christian values were applied throughout the history of technology.

British values

British values will be taught discretely through out the academic year. When the opportunity arises throughout the topics. E Safety will teach how to have mutual respect and tolerance of those of different beliefs and faiths. All the topics will teach the laws around technology in the working environment as well as personal use. Students will also be taught how organisations and the government use technology to help run a group of people or nations.

Year 7

The connected curriculum

E Safety – This has many links with PSHE. Students look at the mental impact Social Media (SM) can have on an individual it also looks at the financial impact of SM on an individual company alongside looking at the well being of an individual when it comes to using technology, a particular focus on dangers online and steps that can be taken to prevent these dangers (cyberbullying, online grooming, sexting)

Scratch – Links with Maths and understanding the importance of sequence of code – Will also be exploring and looking at how computers processes information with Binary and Denary using num

Photoshop – Creating a album cover for the music they produced in earlier term. This could also be linked in with the drama play which they will have done by the time they do photoshop in summer 2

Year 7 Overview
Subject: Computing
Long-term plan



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Week	Month	Learning Intentions and/or Key Questions
Aut1-1	September	Topic 1 (E- Safety) <ul style="list-style-type: none"> E-Safety – How to stay safe online Understanding dangers and benefits of Social Media To create a powerpoint (Formative Assessment) End of unit assessment
Aut1-2		
Aut1-3		
Aut1-4		
Aut1-5	October	Topic 2 (Scratch) <ul style="list-style-type: none"> What is coding – Intro to Scratch (Topic 1) Scratch Find a coder – Research on a programmer Investigate scratch tools and sprite command How to create a nesting loop How to use broadcast feature
Aut1-6		
Aut1-7		
Half term holiday		
Aut2-1	November	<ul style="list-style-type: none"> How to create variables How to create background costumes Creating a game in scratch - Tutorial Creating a choice of games project based Same as above Testing – Improvements (Formative Assessment) Evaluation End of unit assessment (Summative Assessment)
Aut2-2		
Aut2-3		
Aut2-4		
Aut2-5		
Aut2-6	December	
Aut2-7		
Christmas holiday		
Spr1-1	January	Topic 3 (Spreadsheets) <ul style="list-style-type: none"> To understand what a spreadsheet does To identify features of a spreadsheet To use basic formulae within excel To identify different types of graphs To understand when it is appropriate to use different graphs To be able to create suitable graphics in excel
Spr1-2		
Spr1-3		
Spr1-4		
Spr1-5		
Spr1-6	February	
Half term holiday		
Spr2-1	March	<ul style="list-style-type: none"> To understand how to format a spreadsheet to improve the appearance To understand more complex formulas to find the average, minimum and maximum total To understand COUNT and COUNTIF formulas including where they are used and the difference between them To understand how to use VLOOKUP formulas when searching for data To understand what validation is, and why it is used To apply validation rules to create a drop down lists End of unit assessment
Spr2-2		
Spr2-3		
Spr2-4		
Spr2-5		
Spr2-6		
Easter holiday		
Sum1-1	April	Topic 4 (Flowcharts)

Sum1-2		<ul style="list-style-type: none"> • Understand control and sequencing principles • To be able to identify flow diagram symbols • To gain an understanding of how Flowol works • To be able to create a flowchart to control set of traffic lights/zebra crossing • To be able to create a flowchart to control a lighthouse (Formative Assessment) • To be able to create a flowchart to control a scenario of your choice • End of unit assessment (Summative)
Sum1-3	May	
Sum1-4		
Sum1-5		
Sum1-6		
	June	Half term holiday
Sum2-1	June	Topic 5 – Photoshop <ul style="list-style-type: none"> • To investigate different editing features to create a digital image • To investigate Basic Photoshop techniques • To create a parody image • To design, create your own parody image of your choice (Formative Assessment) • To improve parody image • Evaluate use of Photoshop techniques • End of unit assessment (Summative)
Sum2-2		
Sum2-3		
Sum2-4		
Sum2-5	July	
Sum2-6		
Sum2-7		

Subject: Computing
Unit: Scratch
Medium-term plan (1)



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Week	Learning Intentions/Key Questions	Learning goals for students/ content to cover	Suggested activities and differentiation	Resources needed
1	Investigate sequencing and commands What is coding? How it works? Why sequencing is important?	<ul style="list-style-type: none"> Identify what is coding Investigate what is scratch Evaluate why programming is important 	<ul style="list-style-type: none"> Starter: https://www.youtube.com/channel/UCJyEBMU1xVP2be1-AoGS1BA Main: What is coding Kahoot quiz - What is scratch Plenary Reflection- what did you learn? 	<ul style="list-style-type: none"> L1 ppt What is scratch ppt What is coding (reading task)
2	Investigate and present industry programmer/ coder/ technology founder	<ul style="list-style-type: none"> Identify what is a coder/ programmer/ technology founder Investigate a coder of your choice Present your findings Evaluate why programming/ technology is important 	<ul style="list-style-type: none"> Starter: https://www.youtube.com/watch?v=xJqSu1IbcHg Main: Follow on from last lesson. Students find a coder/ technology founder and create a one slide profile for class presentation Plenary Name one thing you did not know? 	Scratch L2 LO ppt Criteria for research task on slide 2 of ppt.
3	Investigate scratch tools and sprites commands What tool is needed to add	<ul style="list-style-type: none"> Identify scratch tools Create a sprite using suitable tools Evaluate your sprite 	<ul style="list-style-type: none"> Starter: \\metis\topics\ICTStudent\SCRATCH\Interactive STARTERS\index.html Main: What is a sprite Create a sprite using tutorial. Plenary List the tools you need to make a sprite 	<ul style="list-style-type: none"> L3 ppt Interactive starters in shared area Design a sprite pdf

4	Investigate scratch tools- nesting loops	<ul style="list-style-type: none"> • Identify what is a loop • Create a loop using suitable commands to draw a pattern • Present your pattern 	<ul style="list-style-type: none"> • Starter: • What is a loop: https://www.youtube.com/watch?v=mgoogyWMTxk • Main: • Discuss loop commands • Create a pattern using tutorial • Extension: create a pattern of your choice • Plenary • Present patterns 	<ul style="list-style-type: none"> • Nesting loop tutorial • L4 ppt
5	Investigate scratch tools- broadcasting message	<ul style="list-style-type: none"> • Identify what is broadcasting • Create a broadcast message for a sprite • Assign broadcast/ test 	<ul style="list-style-type: none"> • Starter: • What is broadcasting? • How many different words can you make from "broadcasting" • Main: • Discuss broadcasting • Create a broadcast using tutorial • Extension: create multiple broadcasts • Plenary • What have you learnt so far? 	<ul style="list-style-type: none"> • L5 ppt • Broadcast tutorial
6	Investigate scratch tools- background and costumes	<ul style="list-style-type: none"> • Identify what is broadcasting • Create a broadcast message for a sprite • Assign broadcast/ test 	<ul style="list-style-type: none"> • Starter: extended starter • Discuss the importance of costumes • Main: • use tutorial experiment with backgrounds and costumes • Once students have completed the tutorial then can create costumes/ backgrounds of their choice • Plenary • Present background to one another 	<ul style="list-style-type: none"> • L6 ppt • Background tutorial
7	Investigate scratch tools- If and variables	<ul style="list-style-type: none"> • Identify what is a variable and IF statement • Assign variables and IF statement <p>Evaluate the importance of variable/ IF statement</p>	<ul style="list-style-type: none"> • Starter: extended starter • Watch 2 videos • 1. Variables and 2. If statements • Main: • Discuss what is a variable/ if statement • use tutorial experiment variables and if statement • Plenary • Give an example of when an IF statement would be used and why 	<ul style="list-style-type: none"> • L7 ppt variables • 2 videos on shared area • Variables tutorial