Subject: Computing

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Key content – knowledge and skills	National Curriculum focus
Pupils will be introduced to e safety and understand the dangers of the internet as well as the benefits. Pupils will then use block programming software (Scratch) to Design, create, Test, Evaluate their own game. They will learn about creating loops, nested loops, If statements Pupils will then understand the importance in the use of spreadsheets in the industry and how business use them. They will manipulate data use formulas, counif, vlookup, fomatting 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. 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.	• 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.
Christian ethos
Pupils will be given the opputunity to see links to christain ethos throughout the academic year.
British values
British values will be taught discretly through out the academic year. When the opportunity arises throughout the topics.

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)** • E-Safety – How to stay safe online • Understanding dangers and benefits of Social Media • To create a powerpoint **(Formative Assessment)** • **End of unit assessment** **Topic 2 (Scratch)** • 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
Aut1-2		
Aut1-3		
Aut1-4		
Aut1-5	October	
Aut1-6		
Aut1-7		
		Half term holiday
Aut2-1	November	• How to create variables

Aut2-2 Aut2-3 Aut2-4 Aut2-5 Aut2-6 Aut2-7	December	• 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)**
		Christmas holiday
Spr1-1 Spr1-2 Spr1-3 Spr1-4 Spr1-5 Spr1-6	January February	**Topic 3 (Spreadsheets)** • 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
		Half term holiday
Spr2-1 Spr2-2 Spr2-3 Spr2-4 Spr2-5 Spr2-6	March	• To understand how to format a spreadsheet to improve the appearance • To understand more complet formulas to find the average, minimum and maximum total • To understand COUNT and COUNTIF formulas includinh 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**
	April	**Easter holiday**
Sum1-1 Sum1-2 Sum1-3 Sum1-4 Sum1-5 Sum1-6	May	**Topic 4 (Flowcharts)** • 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)**
	June	**Half term holiday**
Sum2-1 Sum2-2 Sum2-3 Sum2-4 Sum2-5 Sum2-6	July	**Topic 5 – Photoshop** • 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)**

Sum2-7		• To improve parody image • Evaluate use of Photoshop tecniques • **End of unit assessment (Summative)**