St Peter's Computing Medium Term Plan

Year 6

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Coding (CS)	**Online Safety (DL)**	**Spreadsheets (IT)**	**Creating a quiz for younger children (IT)**	**Understanding computer networks (CS)**	**An introduction to binary coding (CS)**
Key learning Design a playable game with a timer and a score Use functions and understand why they are useful Use flowcharts to create and debug code	Key learning Identify the benefits and risks of mobile devices broadcasting the location of the user/device Identify secure sites by looking for the privacy seals of approval Identify the positive and negative influences or technology on health and the environment	Key learning Navigate and enter data into cells Introduce some basic data formulae in Excel for %, averages and max/min numbers Create a variety of graphs in Excel Apply spreadsheet skills to solving problems	Key learning Create a picture based quiz for younger children Make a quiz that requires the player to search a database	Key learning Know what the internet consists of Find out what a LAN and WAN are Find out how the Internet is accessed in school	Key learning Examine how whole numbers are used as a basis for representing all types of data in digital systems Understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics
Key Vocabulary Flowchart Function Variable	Key Vocabulary PEGI rating Digital footprint Screen time	Key Vocabulary Formula Sum Range Cell reference Workbook	Key Vocabulary Concept map Database Collaboration	Key Vocabulary Local area network (LAN); Wide area network (WAN) Wireless Network cables Router	Key Vocabulary Bit Digital Base 10 Binary
Key questions What is a function in coding? Can you give an example?	Key questions Why do I need to be aware of the dangers of being online? Why is it important to think about how much screen time I am having?	Key questions What is a spreadsheet used for? How do you carry out e.g. a multiplication/ addition calculation	Key questions Apart from the questions, what else does a quiz need to contain? What factors do you need to consider when creating a quiz?	Key questions What is the difference between the internet and the world wide web? What is the difference between a LAN and a WAN?	Key questions How does binary relate to computer memory? How does binary relate to the programs that you use or create?
Key resources 2Code Code.org	Key resources Various	Key resources Microsoft Excel Google sheets	Key resources 2Quiz Scratch	Key resources Various	Key resources 2Code
Purple Mash unit 6.1	Purple Mash unit 6.2	Purple Mash unit 6.9	Purple Mash unit 6.7	Purple Mash unit 6.6	Purple Mash unit 6.8

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Spreadsheets (IT)			**Coding to make an adventure game (CS)**	**Writing a weblog (IT)**
Key learning	Key learning Use a spreadsheet to investigate the probability of the results of throwing many dice Use computational modelling, e.g. to budgeting for party, planning a holiday, work out the discount and final price in a shop sale	Key learning	Key learning	Key learning Make a story based adventure Use written plans to code a map-based adventure	Key learning Identify the purpose of writing a blog Understand how to write a blog and a blog post
Key Vocabulary	Key Vocabulary Equals tool Formula Spreadsheet Computational model	Key Vocabulary	Key Vocabulary	Key Vocabulary Concept map Function	Key Vocabulary Blog Blog page Blog post
Key questions	Key questions How can formulas be used to help us model a real-life situation?	Key questions	Key questions	Key questions Why is it important to plan a text based adventure?	Key questions What is a blog? How are the audience involved in a blog?
Key resources	Key resources 2Calculate	Key resources	Key resources	Key resources 2Create a story	Key resources 2Blog
Purple Mash unit	Purple Mash unit 6.3	Purple Mash unit	Purple Mash unit	Purple Mash unit 6.5	Purple Mash unit 6.4

DL = Digital literacy; CS = Computer science; IT = Information technology