YEAR 2 COMPUTING CURRICULUM FRAMEWORK

St Peter's CE INFANT SCHOOL

Overview of Key Stage 1 Curriculum:

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 3
STREET DETECTIVES	**MUCK, MESS AND MIXTURES**	**TOWERS, TUNNELS AND TURRETS**
C1 Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	**C1 Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions**	**C6 Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**
C2 Create and debug simple programs	**C2 Create and debug simple programs**	Tying in with internet safety day, children learn about how to stay safe on the internet and what information is and is not safe to share online. We also discuss what to do and who to tell if we are worried about something we have seen. Children produce their own posters / leaflets to inform and explain to other children what they should do in order to remain safe when using the internet.
C3 Use logical reasoning to predict the behaviour of simple programs	**C3 Use logical reasoning to predict the behaviour of simple programs**	
Children use 'Scratch' to create a simple street map driving game, through designing their own street map 'stages'. In addition they select vehicle 'sprites' and use algorithms to programme these to perform actions when given buttons are pressed, learning how to de-bug their own algorithms when problems are found. Children then write sets of instructions for their games for other members of the class to follow and play.	Children continue to build upon what they have learnt in Term 1, to work through a series of progressive algorithm and coding challenges, requiring them to de-bug programmes.	**C4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content**
C4 Use technology purposefully to create, organise,		**C5 Recognise common uses of information technology beyond school**

store, manipulate and retrieve digital content Children edit photos of the local area to make them look old and saving them so they can be retrieved easily.		Children use the BBC nature website and videos to find out about burrowing animals, before writing their own information texts.
SPRING TERM 4	**SUMMER TERM 5**	**SUMMER TERM 6**
LAND AHOY	**UNDER CONSTRUCTION**	**WRIGGLE AND CRAWL**
C4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content **C5 Recognise common uses of information technology beyond school** Children use the internet to research lifeboats in the UK and locate our nearest lifeboat station using the RNLI website and Google Maps.	**C4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content** **C5 Recognise common uses of information technology beyond school** Children use the internet to find out about common birds and plants found within the school locality.	**C5 Recognise common uses of information technology beyond school. C4** We watch live webcam footage of bees in a bee colony as they come and go from the hive and perform their duties, including the waggle dance. **C4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content. C5** Children use computers to design and make branching databases containing a range of minibeasts. When they are complete the finished databases allow users to identify minibeasts, which they have found, using the database, through answering a range of scripted questions.