

Kingsham Primary School



Computing Long Term Plan

Purpose of study

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.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Computing– Topics and Opportunities

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1/2 A	E-safety: Staying safe on the internet	Digital Literacy & E-safety: using a computer/device	Coding: Scratch Jnr - introduction and fundamentals	Digital Literacy - using a computer	Digital Literacy: taking and using photos	Coding: Scratch Jnr - introduction and fundamentals
Year 1/2B	E-safety: Using the internet safely	Digital Literacy & E-safety: using a computer/device	Coding with <u>Codeapillars/Beebots</u>	Digital Literacy: bug hunters	Digital Literacy: potty painters	Coding: Scratch Jnr - introduction and fundamentals
Year 3/4 A	E-safety: Google Don't fall for fake	Digital Literacy: Research and develop a topic	Coding: Interactive - <u>Chatbot</u>	Coding: Game - Boat race	Digital Literacy: <u>Childnet</u> video competition	Coding: project
Year 3/4 B	E-safety: Google Share with care	Digital Literacy & E-safety: using a computer/device	Digital Literacy: <u>Explore a Topic with Research and Collaboration</u>	Coding: Animations - Space	Coding: Sound and music - Rock band	Coding: project
Year 5/6 A	E-safety: Google It's cool to be kind	Digital Literacy: Explore a Topic with Research and Collaboration	Coding: scratch maths Building with Numbers	Coding: Scratch Memory game	Digital Literacy: <u>Childnet</u> video competition	Coding: project
Year 5/6 B	E-safety: Google Secure your secrets	Digital Literacy: Plan an event	Coding: Scratch - Space Junk Game	Coding: Catch the Dots Game	Digital Literacy: <u>Childnet</u> video competition	Coding: project