

# YEAR 2 COMPUTING CURRICULUM FRAMEWORK



## 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
<b>STREET DETECTIVES</b>	<b>MUCK, MESS AND MIXTURES</b>	<b>LAND AHOY</b>
<p><b>Co1 Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</b></p> <p>Create an algorithm to successfully direct a partner around a set course or path. Test the algorithm before using a program to follow the same instructions.</p> <p><b>Co4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content</b></p> <p>Learn to download their expedition photographs from a digital camera to the computer, organising them into separate folders such as people, homes, buildings, special places</p>	<p><b>Co4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</b></p> <p>Create a dough ball animation using their storyboards as a guide. Import their animation into video-editing software, such as Movie Maker, and use the narration tools to add sound effects, dialogue or narration for effect.</p>	<p><b>Co 3 Use logical reasoning to predict the behaviour of simple programs</b></p> <p>Use a floor robot to navigate around a large scale map drawn on the playground.</p> <p><b>C4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content</b></p> <p>Make a single PowerPoint slide about their favourite art of the project. Include a sentence or sentences explaining what they learned and why they enjoyed this particular aspect of their project.</p> <p><b>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.</b></p> <p>Tying in with internet safety day, children learn about</p>

		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.
<b>SPRING TERM 4</b>	<b>SUMMER TERM 5</b>	<b>SUMMER TERM 6</b>
<b>SCENTED GARDEN</b>	<b>WRIGGLE AND CRAWL</b>	<b>TOWERS, TUNNELS AND TURRETS</b>
<p><b>Co4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content</b></p> <p>Create an individual PowerPoint slide explaining their favourite part of the project, uploading a photograph to illustrate their ideas.</p>	<p><b>Co 2 Create and debug programs</b></p> <p>Go on a 'Programmed' minibeast hunt. Working in teams, take it in turns to 'program' a member of their team to reach and collect numbered minibeast. If their instructions are correct, they collect the minibeast. However, if their instructions are incorrect the opposite team gets a chance to 'debug' the instructions and have a go at collecting the minibeast.</p> <p><b>Co1 Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</b></p> <p>Rewrite Eric Carle's 'The very hungry caterpillar' as an algorithm. Thinking carefully about the different steps the caterpillar goes through, including which ones repeat and draw a flow diagram to illustrate the story.</p> <p><b>C5 Recognise common uses of information technology beyond school.</b></p> <p>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.</p> <p><b>C4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</b></p>	<p><b>Co 4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content</b></p> <p>Draw a castle using suitable drawing software. Use shapes to form the basic castle form, adding colour and textures to improve its appearance. Label the castle's key features and add interesting captions before printing and displaying.</p>

	<p>Use stop motion animation software to make their ants march like an army across the classroom carpet or a table.</p> <p><b>Co 3 Use logical reasoning to predict the behaviour of simple programs</b></p> <p>Look at a diagram of the life cycle of a familiar minibeast with key elements missing. Use logical reasoning to predict the missing steps in the life cycle. Complete the life cycle by including the correct elements.</p>	
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