



INTENT

- To deliver a deep computing curriculum that balances both computing and ICT.
- To develop computational thinking and associated vocabulary to ensure children are prepared for the technology opportunities in today's and tomorrow's society.
- To introduce pupils to a wide to a wide range of technology, including laptops, tablets, dataloggers and controlled devices.
- To ensure children understand how to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.

IMPLEMENTATION

- Follow a whole school, long term plan for computing to meet national curriculum objectives.
- Deliver a 2 year rolling curriculum Years 1&2 (Milestone 1) Years 3&4 (Milestone 2) and Years 5&6 (Milestone 3) so that Teachers can share planning, resources and subject knowledge to enhance experiences for our children. 2 year rolling curricula to be reviewed annually to ensure curriculum objectives being met.
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- Computing will be used to enhance learning through thematic approaches.
- Publishing of digital content to our school website to showcase pupils' work.
- Evidence of pupils learning and objectives met through a whole class Computing book.

IMPACT

- Progression of skills learning evident on Classroom Monitor and through work scrutiny.
- Children learn and develop their skills to produce work that uses creative design



Personal, Social and Emotional Development: Managing self:

- Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
- Explain the reasons for rules, know right from wrong and try to behave accordingly.

Expressive Arts and Design: Creating with Materials:




- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Understanding the World: Past and Present:

- Talk about the lives of people around them and their roles in society.
- Know some differences and similarities between things in the past and now, drawing on their experiences.

Computing Curriculum Overview



				
To code (using Scratch & Scratch Jnr)	Motion	<ul style="list-style-type: none"> • Control motion by specifying the number of steps to travel, direction and turn. 	<ul style="list-style-type: none"> • Use specified screen coordinates to control movement. 	<ul style="list-style-type: none"> • Set IF conditions for movements. Specify types of rotation giving the number of degrees.
	Looks	<ul style="list-style-type: none"> • Add text strings, show and hide objects and change the features of an object. 	<ul style="list-style-type: none"> • Set the appearance of objects and create sequences of changes. 	<ul style="list-style-type: none"> • Change the position of objects between screen layers (send to back, bring to front).
	Sound	<ul style="list-style-type: none"> • Select sounds and control when they are heard, their duration and volume. 	<ul style="list-style-type: none"> • Create and edit sounds. Control when they are heard, their volume, duration and rests. 	<ul style="list-style-type: none"> • Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation.
	Draw	<ul style="list-style-type: none"> • Control when drawings appear and set the pen colour, size and shape. 	<ul style="list-style-type: none"> • Control the shade of pens. 	<ul style="list-style-type: none"> • Combine the use of pens with movement to create interesting effects.
	Events	<ul style="list-style-type: none"> • Specify user inputs (such as clicks) to control events. 	<ul style="list-style-type: none"> • Specify conditions to trigger events. 	<ul style="list-style-type: none"> • Set events to control other events by 'broadcasting' information as a trigger.
	Control	<ul style="list-style-type: none"> • Specify the nature of events (as a single event or a loop). 	<ul style="list-style-type: none"> • Use IF THEN conditions to control events or objects. 	<ul style="list-style-type: none"> • Use IF THEN ELSE conditions to control events or objects.

To code (using scratch)	Sensing	<ul style="list-style-type: none"> • Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?). 	<ul style="list-style-type: none"> • Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions). 	<ul style="list-style-type: none"> • Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions. 													
	Variables and lists	<ul style="list-style-type: none"> • From Year 3 onwards. 	<ul style="list-style-type: none"> • Use variables to store a value. • Use the functions define, set, change, show and hide to control the variables. 	<ul style="list-style-type: none"> • Use lists to create a set of variables. 													
	Operators	<ul style="list-style-type: none"> • From Year 3 onwards. 	<ul style="list-style-type: none"> • Use the Reporter operators to perform calculations. <table border="1" style="width: 100%; text-align: center;"> <tr> <td>$() + ()$</td> <td>$() - ()$</td> <td>$() * ()$</td> <td>$() / ()$</td> </tr> </table>	$() + ()$	$() - ()$	$() * ()$	$() / ()$	<ul style="list-style-type: none"> • Use the Boolean operators to define conditions. <table border="1" style="width: 100%; text-align: center;"> <tr> <td>$() < ()$</td> <td>$() = ()$</td> <td>$() > ()$</td> <td>$() \text{and} ()$</td> <td>$() \text{or} ()$</td> <td>Not()</td> </tr> </table> <ul style="list-style-type: none"> • Use the Reporter operators to perform calculations. <table border="1" style="width: 100%; text-align: center;"> <tr> <td>$() + ()$</td> <td>$() - ()$</td> <td>$() * ()$</td> <td>$() / ()$</td> </tr> </table>	$() < ()$	$() = ()$	$() > ()$	$() \text{and} ()$	$() \text{or} ()$	Not()	$() + ()$	$() - ()$	$() * ()$
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To connect	<ul style="list-style-type: none"> • Understand online risks and the age rules for sites. • Participate in a safe online chat on computer using Microsoft Teams. 	<ul style="list-style-type: none"> • Give examples of the risks posed by online communications. • Understand the term 'copyright'. • Understand that comments made online that are hurtful or offensive are the same as bullying. • Understand how online services work. 	<ul style="list-style-type: none"> • Collaborate with others online on sites approved and moderated by teachers. • Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. • Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder. • Understand the effect of online comments and show responsibility and sensitivity when online. • Understand how simple networks are set up and used. 														
To communicate	<ul style="list-style-type: none"> • Use a range of applications and devices in order to communicate ideas, work and messages. 	<ul style="list-style-type: none"> • Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally. 	<ul style="list-style-type: none"> • Choose the most suitable applications and devices for the purposes of communication. • Use many of the advanced features in order to create high quality, professional or efficient communications. 														
To collect	<ul style="list-style-type: none"> • Use simple databases to record information in areas across the curriculum. 	<ul style="list-style-type: none"> • Devise and construct databases using applications designed for this purpose in areas across the curriculum. 	<ul style="list-style-type: none"> • Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner. 														