

# Computing Curriculum – 2 Year Cycle Years 1 & 2



## Intent

Learning is a change to long term memory. Our aims are to ensure that our students experience a wide breadth of study based on the national curriculum and have, by the end of each key stage, long-term memory of curriculum knowledge.

We aim to equip pupils to use computational thinking and creativity to understand and change the world. Teaching will ensure that children become digitally literate. It will build on their computer science knowledge and equip them to use information technology to create programs, systems and a range of content.

Through the continued development of oracy skills, we will expand pupil's computational vocabulary which will deepen as they progress through school. Through our computing curriculum, we intend to enable pupils to become safe, active participants in a digital world.

## Implementation

Computing is taught through the 'Threshold Concepts' of computer science, information technology and digital literacy. Each threshold concept is split into knowledge categories that teachers will explore with the children. Deliberate practise of these, whereby knowledge will be revisited, will enable a gradual deepening of their understanding. Teachers utilise the National Centre For Computing Education (NCCE) Teach Computing' curriculum, which covers all areas of the computing curriculum and concepts are revisited each year, to ensure a deepening of understanding.

## Impact

Because learning is a change to long term memory it is impossible to see impact in the short term. However, we do use probabilistic assessment based on deliberate practise. This means that we look at the practices taking place to determine whether they are appropriate, related to our end of key stage goals. We use comparative judgements against Milestone statements, in the tasks we set (POP tasks) and in tracking students' work overtime. We use lesson observations to see if the pedagogical style matches our depth expectations.

Impact is also measured through key questioning skills built into lessons, child-led assessment against the objective (WAGBA), and summative assessments aimed at targeting next steps in learning.

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Year Group	Cycle	Autumn	Spring	Summer
1/2	A	<b>Computing Systems &amp; Networks</b> Technology Around Us <b>Computing Systems &amp; Networks</b> Information Technology Around Us <b>Creating Media</b> Digital Writing	<b>Programming</b> Programming Animations  <b>Programming</b> Programming Quizzes	<b>Creating Media</b> Making Music  <b>Data &amp; Information</b> Grouping Data
	B	<b>Computing Systems &amp; Networks</b> Technology Around Us <b>Computing Systems &amp; Networks</b> Information Technology Around Us <b>Creating Media</b> Digital Painting	<b>Programming</b> Moving A Robot  <b>Programming</b> Robot Algorithms	<b>Creating Media</b> Digital Photography  <b>Data &amp; Information</b> Pictograms

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## Teaching Sequence for Y1/2 (Milestone 1) CYCLE A

Weeks	Autumn Term	Spring Term	Summer Term
Topic Title:	Computing Systems & Networks - Technology Around Us Digital Writing	Programming Animations Programming Quizzes	Creating Media - Making Music Data & Information - Grouping Data
1	Technology in our classroom	Comparing Tools	How does music make us feel?
2	Using Technology	Joining Blocks	Rhythms and Patterns
3	Developing Mouse Skills	Make a Change	How music can be used
4	Using a computer keyboard	Adding Sprites	Notes and Tempo
5	Developing keyboard skills	Project Design	Creating digital music
6	Using a computer responsibly	Follow my Design	Reviewing and Editing music
7	Exploring the keyboard	Scratch Jr Recap	Label and Match
8	Adding and removing the text	Outcomes	Group and Count
9	Exploring the toolbar	Using a Design	Describe an Object
10	Making changes to text	Changing a Design	Making Different Groups
11	Pencil or keyboard - Explaining my choices	Designing & Creating a program	Comparing groups and Answering Questions
12	<b>POP TASK</b>	<b>POP TASK</b>	<b>POP TASK</b>

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## Teaching Sequence for Y1/2 (Milestone 1) CYCLE B

Weeks	Autumn Term	Spring Term	Summer Term
Topic Title:	Computing Systems & Networks Technology Around Us Digital Painting	Programming - Moving A Robot Programming - Robot Algorithms	Creating Media - Digital Photography Data & Information - Pictograms
1	Technology in our classroom	Buttons	Taking Photos
2	Using Technology	Directions	Landscape or Portrait
3	Developing Mouse Skills	Forwards and Backwards	What makes a good photograph?
4	Using a computer keyboard	Four Directions	Lighting
5	Developing keyboard skills	Getting There	Effects
6	Using a computer responsibly	Routes	Is it real?
7	How can we paint using computers?	Giving Instructions	Counting & Comparing
8	Using shapes and lines	Same but Different	Enter the Data
9	Making careful choices	Making Predictions	Creating Pictograms
10	Why did I choose that?	Mats and Routes	What is an Attribute?
11	Painting all be myself	Algorithm Design	Comparing People / Presenting Information
12	<b>POP TASK</b>	<b>POP TASK</b>	<b>POP TASK</b>