

Teach Computing Scheme for 2022

Lesson plans, curriculum and resources updated online through <https://teachcomputing.org/> - Login and teaching resources

Teaching Resources dropdown - Choose resources by Key Stage - Unit guide (for MTP) and 6 Lessons for each unit - all downloadable via links.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	<u>Managing self</u> Developing skills to manage the school day successfully - routines.	<u>Physical Development</u> Fundamental movement skills acquired and to progress.	<u>Physical Development</u> Developing and refining a range of ball skills- developing confidence and competence.	<u>Managing self</u> Know and talk about the different factors that support their well being - eg screen time.	<u>Physical Development</u> Combining movements with ease and fluency. Developing foundations of handwriting style.	<u>Physical Development</u> Confidently and safely using a range of large and small apparatus indoors and outside, alone and in a group.
Reception Personal, social and emotional development	Three and four year olds (prior learning) - Remember rules without needing an adult to remind them. Reception <ul style="list-style-type: none"> • Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'. Early Learning Goals - Managing self <ul style="list-style-type: none"> • 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. 					
Physical Development	Three and four year olds (prior learning) Match their developing physical skills to tasks and activities in the setting. Reception <ul style="list-style-type: none"> • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. 					

	<p>Three and four year olds - Understanding the World</p> <ul style="list-style-type: none"> • Explore how things work.
<p>Expressive Arts and Design</p>	<p>Reception Explore, use and refine a variety of artistic effects to express their ideas and feelings.</p> <p>ELG - Creating with Materials</p> <ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
	<p>Continuous Provision opportunities Through ALL areas of provision, children are showing resilience and perseverance to face daily challenges. Areas always looking to build confidence to try new activities and show independence, resilience and perseverance in the face of challenge. Remembering rules without needing an adult to remind them, used and applied throughout areas of provision - eg. in computing expectation that the focus programme remains on screen.</p> <p>INSIDE</p> <p>Reading- variety of texts with links to computing. Phonics games on iPads - reading links. Writing area- Fine motor skills developed using a range of different tools. Block play (construction) - Using iPads to take photos of their constructions when completed. Small world- Exploring how things work through play. Home Corner- Exploring how things work, applying and testing understanding through play. Maths area- Resources to explore, match and investigate through the curriculum in face of challenges. Computers- Basic computer skills and digital literacy being developed. Area of 2 computers - Purple mash, phonics/maths. Enhancements - Beebots and ipads. Creative area- Using a range of materials to role play and creating their own and making sense of ‘technology.’</p> <p>OUTSIDE</p> <p>Sand / Water / Sensory Garden / Mud kitchen - Developing small motor skills through use of a range of different tools and learning scenarios. Climbing Frames - Opportunities for physical development and refinements. Den building / Obstacle Course - Developing physical skills matched to the setting throughout the year.</p>

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	Technology around us (1.1)	Digital painting (1.2)	Moving a robot (1.3)	Grouping data (1.4)	Digital writing (1.5)	Programming animations (1.6)
Year 2	Information technology around us (2.1)	Digital photography (2.2)	Robot algorithms (2.3)	Pictograms (2.4)	Making music (2.5)	Programming quizzes (2.6)

KS2

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 3	Connecting computers (3.1)	Stop-frame animation (3.2)	Sequencing sounds (3.3)	Branching databases (3.4)	Desktop publishing (3.5)	Events and actions in programs (3.6)
Year 4	The internet (4.1)	Audio production (4.2)	Repetition in shapes (4.3)	Data logging (4.4)	Photo editing (4.5)	Repetition in games (4.6)
Year 5	Sharing information (5.1)	Video production (5.2)	Selection in physical computing (5.3)	Flat-file databases (5.4)	Vector drawing (5.5)	Selection in quizzes (5.6)
Year 6	Internet communication (6.1)	Webpage creation (6.2)	Variables in games (6.3)	Introduction to spreadsheets (6.4)	3D modelling (6.5)	Sensing (6.6)

Unit summaries

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	<p>Technology around us Recognising technology in school and using it responsibly.</p>	<p>Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.</p>	<p>Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes.</p>	<p>Grouping data Exploring object labels, then using them to sort and group objects by properties.</p>	<p>Digital writing Using a computer to create and format text, before comparing to writing non-digitally.</p>	<p>Programming animations Designing and programming the movement of a character on screen to tell stories.</p>
Year 2	<p>Information technology around us Identifying IT and how its responsible use improves our world in school and beyond.</p>	<p>Digital photography Capturing and changing digital photographs for different purposes.</p>	<p>Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions.</p>	<p>Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer.</p>	<p>Making music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p>	<p>Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p>

Unit summaries

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Year 3	<p>Connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p>Stop-frame animation Capturing and editing digital still images to produce a stop-frame animation that tells a story.</p>	<p>Sequencing sounds Creating sequences in a block-based programming language to make music.</p>	<p>Branching databases Building and using branching databases to group objects using yes/no questions.</p>	<p>Desktop publishing Creating documents by modifying text, images, and page layouts for a specified purpose.</p>	<p>Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>
Year 4	<p>The internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</p>	<p>Audio production Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p>	<p>Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.</p>	<p>Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</p>	<p>Photo editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p>	<p>Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</p>

Unit summaries

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 5	<p>Systems and searching Recognising IT systems around us and how they allow us to search the internet.</p>	<p>Video production Planning, capturing, and editing video to produce a short film.</p>	<p>Selection in physical computing Exploring conditions and selection using a programmable microcontroller.</p>	<p>Flat-file databases Using a database to order data and create charts to answer questions.</p>	<p>Vector drawing Creating images in a drawing program by using layers and groups of objects.</p>	<p>Selection in quizzes Exploring selection in programming to design and code an interactive quiz.</p>
Year 6	<p>Communication and collaboration Identifying and exploring how data is transferred and information is shared online.</p>	<p>Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.</p>	<p>Variables in games Exploring variables when designing and coding a game.</p>	<p>Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data.</p>	<p>3D modelling Planning, developing, and evaluating 3D computer models of physical objects.</p>	<p>Sensing Designing and coding a project that captures inputs from a physical device.</p>