

## Computing Curriculum Coverage Document

Skills	Cycle 1 20-21	Cycle 2 21-22	Cycle 3- 22-23	Cycle 4 23-24	Cycle 5 24-25	Cycle 6 25-26
<p>Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.</p> <p>Can analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems</p>	<p><u>We're all human/ This is me!</u></p> <p>KS1 - Complete class discussions and quizzes on internet safety. 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</p> <p>KS2- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p><u>Travel Agents</u></p> <p>KS1- Complete class discussions and quizzes on internet safety. 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</p> <p>KS2- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p><u>Physical World</u></p> <p>KS1- Complete class discussions and quizzes on internet safety. 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</p> <p>KS2- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p><u>Out of Africa</u></p> <p>KS1- Complete class discussions and quizzes on internet safety. 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</p> <p>KS2- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p><u>Moving Mechanisms (WeDo2)</u></p> <p>KS1- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>KS2- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p>	<p><u>100 years celebrations</u></p> <p>KS1- Complete class discussions and quizzes on internet safety. 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</p> <p>KS2- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>
<p>Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.</p> <p>Are responsible, competent, confident and creative users of information and communication technology</p>	<p><u>Worldwide celebrations</u></p> <p>KS1 - To type up the Christmas recipe created during English using bullet points and headings.</p> <p>KS2- To type up the Christmas recipe created during English, using bullet point, headings, subheadings and modal verbs.</p>	<p><u>Dinosaurs!</u></p> <p>KS1 - 'Make a Scene' (Children will be dragging pictures and using paint tools to create a scene.</p> <p>KS2 - 'Make a Scene' (Children will be dragging pictures and using paint tools to create a dinosaur scene. Constructively evaluating how easy or hard it as to retrieve content.</p>	<p><u>World events inc. Olympics</u></p> <p>KS1 – Using graphs and pictograms to input data on countries scores from world events.</p> <p>KS2 - Using graphs and pictograms to input data on countries scores from world events, interpreting &amp; drawing conclusions from graphs</p>	<p><u>Light and Dark</u></p> <p>KS1 - Use logical reasoning to predict the behaviour of simple programs</p> <p>KS2 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program</p>	<p><u>Flexible me!</u></p> <p>KS1- Complete class discussions and quizzes on internet safety. 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</p> <p>KS2- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p><u>Christmas – Ice worlds</u></p> <p>KS1 - Recognise common uses of information technology beyond school.</p> <p>KS2 - Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.</p>
<p>EYFS curriculum to be implemented alongside the KS1 curriculum to ensure pupils continue to bridge the gap</p>	<p><u>Time Travellers</u></p> <p>KS1 - Recognise common uses of information technology beyond school and h the internet and information has changed over time.</p> <p>KS2 - Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Look at how the world wide web has developed over time.</p>	<p><u>Historical figures</u></p> <p>KS1 - Recognise common uses of information technology beyond school and h the internet and information has changed over time.</p> <p>KS2 - Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Look at how the world wide web has developed over time.</p>	<p><u>Body Systems</u></p> <p>KS1 - Use logical reasoning to predict the behaviour of simple programs</p> <p>KS2 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p><u>Bugs Life</u></p> <p>KS1 – Using graphs and pictograms to input data on countries scores from outdoor bug searches.</p> <p>KS2 - Using graphs and pictograms to input data on bug searches, interpreting &amp; drawing conclusions from graph</p>	<p><u>Great Inventors Electricity</u></p> <p>KS1 - Moving a robot Writing short algorithms and programs for floor robots and predicting program outcomes.</p> <p>KS2 - Creating and debugging programs and using logical reasoning to make predictions.</p>	<p><u>Lights, Camera, Action!</u></p> <p>KS1 - Capturing and editing digital still images to produce a stop -frame animation that tells a story.</p> <p>KS2 – Planning and creating a story board, capturing and editing digital still images to produce a stop -frame animation that tells a story.</p>
	<p><u>Space – To infinity and beyond</u></p> <p>KS1 – Creating space themed scratch Game.</p> <p>KS2 – Creating a space themed scratch game and evaluating their peer's work.</p>	<p><u>Young Entrepreneurs</u></p> <p>KS1 - Moving a robot Writing short algorithms and programs for floor robots and predicting program outcomes.</p> <p>KS2 - Creating and debugging programs and using logical reasoning to make predictions.</p>	<p><u>Romans</u></p> <p>KS1 - Recognise common uses of information technology beyond school and h the internet and information has changed over time.</p> <p>KS2 - Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Look at how the world wide web has developed over time.</p>	<p><u>Local Adventures – Pirates and Smugglers</u></p> <p>KS1 - Recognise common uses of information technology beyond school.</p> <p>KS2 - Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.</p>	<p><u>Everything Changes</u></p> <p>KS1 - Recognise common uses of information technology beyond school and h the internet and information has changed over time.</p> <p>KS2 - Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Look at how the world wide web has developed over time.</p>	<p><u>Tudor Times</u></p> <p>KS1 - Use logical reasoning to predict the behaviour of simple programs</p> <p>KS2 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program</p>

Skills	Cycle 1 20-21	Cycle 2 21-22	Cycle 3- 22-23	Cycle 4 23-24	Cycle 5 24-25	Cycle 6 25-26
	<u>Victorians</u>  KS1 - Use logical reasoning to predict the behaviour of simple programs KS2 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program	<u>Red, White and Blue</u>  KS1 - Create and debug simple programs KS2 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	<u>Feel the Force</u>  KS1- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions KS2- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	<u>Crash, Bang, Wollop! Inc Vikings</u>  KS1 - Create and debug simple programs KS2 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	<u>Awesome Egyptians</u>  S1 - Create and debug simple programs KS2 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	<u>Disney – Heroes and Villains</u>  KS1 – Creating Disney themed scratch Game. KS2 – Creating a Disney themed scratch game and evaluating their peer's work.
	<u>Commotion in the Ocean</u>  KS1 – Using graphs and pictograms to input data on countries scores from sea pollution data. KS2 - Using graphs and pictograms to input data on sea pollution, interpreting & drawing conclusions from graphs	<u>Life cycles</u>  KS1 - Use logical reasoning to predict the behaviour of simple programs KS2 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program	<u>Fire and Ice</u>  KS1 - Create and debug simple programs KS2 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	<u>Hunter Gatherer</u>  KS1 - Moving a robot Writing short algorithms and programs for floor robots and predicting program outcomes. KS2 - Creating and debugging programs and using logical reasoning to make predictions.	<u>Welcome to the Big Top!</u>  KS1 - Use logical reasoning to predict the behaviour of simple programs KS2 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program	<u>Carnivals!</u>  KS1- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions KS2- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

### ICT progression map

ICT – Working below age expected		
Understanding the World		Identify things they see on screen Use a mouse or key pad to make marks Enjoy simple computer games Remote controls ICT in our everyday lives (e.g. zebra crossings, torches, chip and pin, Alexa) Cause and effect toys Cameras to capture life
Understanding the World		Switching the class PC on & off.  To know about different technology in the home/school and what it is for.  To know that information can be retrieved from internet enabled devices.
Understanding the World	Past and Present	Connect one idea or action to another using a range of connectives.  Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.  Show resilience and perseverance in the face of challenge.  Think about the perspectives of others.  Write short sentences with words with known sound-letter correspondences using a capital letter and full stop.  Re-read what they have written to check that it makes sense  Count objects, actions and sounds.  Compare numbers.  Select, rotate and manipulate shapes to develop spatial reasoning skills.  Continue, copy and create repeating patterns.  Comment on images of familiar situations in the past.

		<p>Explore the natural world around them.</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Create collaboratively, sharing ideas, resources and skills.</p>
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Key Stage 1 National Curriculum Expectations	Key Stage 2 National Curriculum Expectations
<p>Pupils should be taught about:</p> <ul style="list-style-type: none"><li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li><li>• Create and debug simple programs</li><li>• Use logical reasoning to predict the behavior of simple programs</li><li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content</li><li>• Recognise common uses of information technology beyond school</li><li>• 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</li></ul>	<p>Pupils should be taught about:</p> <ul style="list-style-type: none"><li>• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li><li>• Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li><li>• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li><li>• Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</li><li>• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li><li>• Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li><li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li></ul>

ICT Curriculum Map

Key Stage 1 National Curriculum Expectations	Key Stage 2 National Curriculum Expectations
<p>Pupils should be taught about:</p> <ul style="list-style-type: none"><li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li><li>• Create and debug simple programs</li><li>• Use logical reasoning to predict the behavior of simple programs</li><li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content</li><li>• Recognise common uses of information technology beyond school</li><li>• 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</li></ul>	<p>Pupils should be taught about:</p> <ul style="list-style-type: none"><li>• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li><li>• Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li><li>• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li><li>• Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</li><li>• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li><li>• Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li><li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li></ul>

KS1 curriculum coverage						
	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 6
Term 1						
Term 2						
Term 3						
Term 4						
Term 5						
Term 6						

KS2 curriculum coverage						
	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 6
Term 1						
Term 2						
Term 3						
Term 4						
Term 5						
Term 6						