

Computing Long Term Overview

KS1

Cycle A		Cycle B	
Autumn 1	<p>Computing – 1.3 Moving a robot (Teach Computing)</p> <p>Computing Pupils should be taught to: understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. create and debug simple programs. use logical reasoning to predict the behaviour of simple programs. recognise common uses of information technology beyond school.</p>	Autumn 1	<p>Computing – 1.1 Information technology around us (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content. recognise common uses of information technology beyond school. 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>
Autumn 2	<p>Computing – 1.2 Digital painting (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	Autumn 2	<p>Computing – 1.5 Digital writing (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content. 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>Spring 1</p>	<p>Computing – 1.4 Grouping data (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content. 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>Spring 1</p>	<p>Computing – 1.6 Programming animations (Teach Computing)</p> <p>Computing Pupils should be taught to: understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. create and debug simple programs. use logical reasoning to predict the behaviour of simple programs. use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>
<p>Spring 2</p>	<p>Computing – 2.2 Digital photography (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content. recognise common uses of information technology beyond school. 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>Spring 2</p>	<p>Computing – 2.1 Information technology around us (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content. recognise common uses of information technology beyond school. 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>Summer 1</p>	<p>Computing – 2.3 Robot algorithms (Teach Computing)</p> <p>Computing Pupils should be taught to: understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. create and debug simple programs. use logical reasoning to predict the behaviour of simple programs. use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p>Summer 1</p>	<p>Computing – 2.5 Making music (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>
<p>Summer 2</p>	<p>Computing – 2.4 Pictograms (Teach Computing)</p> <p>Computing Pupils should be taught to: use technology purposefully to create, organise, store, manipulate and retrieve digital content. 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>Summer 2</p>	<p>Computing – 2.6 Programming quizzes (Teach Computing)</p> <p>Computing Pupils should be taught to: understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs. use logical reasoning to predict the behaviour of simple programs.</p>

EYFS - Computing

Computing is not explicitly mentioned within the Early Years Foundation Stage statutory framework. However, we believe in providing our children with the knowledge, skills and understanding they need to select and use appropriate technology in a rapidly changing world where our lives are constantly being transformed by Computing. This will support children in becoming creative, reflective and independent learners. We recognise that the use of Computing enhances teaching and learning across the curriculum by enabling rapid access to knowledge, information and experiences from a wide range of sources. Computing provides children with opportunities to explore, question and make sense of the world around them. It is important that children have regular opportunities to engage in computational thinking, ie, to focus on and develop a wide range of problem-solving skills in line with the EYFS framework, including Characteristics of Effective Learning.

This area of learning should provide opportunities for children develop their computational thinking skills focusing on

- Algorithms – *Creating step by step instructions or rules to solve a problem*
- Logical reasoning – *Analyse and make predictions*
- Decomposition – *Converting one big problem into many, more manageable, smaller parts*
- Patterns – *Observe patterns, trends and spot similarities*
- Abstraction - *Identifying important information and removing unnecessary detail*
- Evaluation - *Assessing the solution and making judgements*