



## **Curriculum - Computing**

National Curriculum Knowledge and Skills

**Courage**

**Resilience**

**Honesty**

**Kindness**

Matthew 7:24 - "Therefore everyone who hears these words of mine and puts them into practice is like a wise man who built his house on the rock"

## Features

**At key stage 1, the knowledge progression takes full account of the national curriculum's strands of:**

- Algorithms
- Creating Programs
- Reasoning
- Using Technology
- Uses of IT beyond school
- Being Safe

**At key stage 2, the knowledge progression takes full account of the national curriculum's strands of:**

- Creating Programs
- Developing Programs
- Reasoning of Networks
- Search Engines
- Using Programs
- Being Safe

Skills are dependent on specific knowledge. A skill is the capacity to perform and in order to perform a deep body of knowledge needs to be acquired and retained.

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## St Nicholas COMPUTING Experience

To enrich and to fully prepare children to go out into our ever-evolving technological world, we will ensure the children will be able to do the following things before they leave St. Nicholas in Year 6:

- Safely turn a computer on and off
- Save and retrieve documents
- Create a PowerPoint – including how to change backgrounds and fonts as well as adding in images and animations
- Design leaflets or brochures in Publisher
- Send an email
- Send a document to print
- Be able to create animations
- Record and edit films

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### Knowledge and Skills Progression in Computing – Reception Development Matters Statements

- Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. (PSED)
- Select, rotate and manipulate shapes to develop spatial reasoning skills. (M)

### Early Learning Goals feeding into National Curriculum - Computing

- Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. (CAL)

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## National Curriculum Subject Content

	<b>Algorithms</b>	<b>Reasoning</b>	<b>Creating Programmes</b>	<b>Using Technology</b>	<b>Uses of IT Beyond</b>	<b>Safe Use</b>
Key Stage 1	Pupils should be taught to understand what algorithms are; how they are implemented as programs in digital devices; and that programs execute by following precise and unambiguous instructions	Pupils should be taught to use logical reasoning to predict the behaviour of simple programs	Pupils should be taught to create and debug simple programs	Pupils should be taught to use technology purposefully to create, organise, store, manipulate and retrieve digital content	Pupils should be taught to recognise common uses of information technology beyond school	Pupils should be taught to 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

## National Curriculum Subject Content

	<b>Reasoning</b>	<b>Creating Programmes</b>	<b>Developing</b>	<b>Using Programs</b>	<b>Networks</b>	<b>Search Engines</b>	<b>Safe Use</b>
Key Stage 2	Pupils should be taught to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	Pupils should be taught to use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Pupils should be taught to 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	Pupils should be taught to -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	Pupils should be taught to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable / unacceptable behaviour; identify a range of ways to report concerns about content and contact

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