

Ryhope Infant School Academy

Progression of Computing Skills

Area of Study	Nursery/Reception (40 - 60 months – ELG)	Year 1	Year 2
Computer Science			
Pupils should be taught to:	Children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	Understand what algorithms are, how they are implemented as programs on digital devices and that programmes require precise and clear instructions. Create and debug programs. Use logical reasoning to predict the behaviour of simple programs.	
Programming	Unplugged programming – children begin to follow instructions and understand that instructions need to be followed in order to reach a particular outcome. Begin to tinker with Beebots, without a specific end task.	Learn to program a Beebot to navigate simple routes. Learn to program an onscreen Beebot or Kodable to complete a task. Be able to debug instructions when the Beebot does reach intended destination. Pupils begin to use simple graphical programming such as Logo, Scratch or Turtle.	Continue to program a Beebot with increasingly complex routes. Move on to programming a Probot. Pupils are able to debug instructions and explain how. Pupils are able to program a variety of different routes to the same destination. Pupils confidently use simple graphical programming. Pupils create a 3D environment, using a graphical language.
Uses	Children begin to recognise and observe common uses of information technology in school and out of school in their understanding of the world.	Recognise and observe common uses of information technology beyond school. Pupils learn about some uses of the internet. Pupils have the opportunity to use IT across the curriculum.	Pupils have the opportunity to use IT across the curriculum.

ICT			
Pupils should be taught to:	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	Use technology to purposefully create, organise, store, manipulate and retrieve digital content. Pupils to use ICT across the curriculum.	
Software	Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.	<p>Digital publishing – basic word processing.</p> <p>Presentation – begin to use Word and PowerPoint</p> <p>Graphics – create simple digital painting</p> <p>Media – learn to use digital cameras, tablets and microphones for a purpose</p> <p>Data – learn to create and use a pictogram</p>	<p>Write and illustrate a short story. Begin to use programs such as dance mat typing.</p> <p>Begin to explore additional features within presentation software.</p> <p>use a variety of software to create images.</p> <p>Animation – create a simple animation</p> <p>Begin to edit footage</p> <p>Present data in a variety of ways</p>
Digital Literacy			
Pupils should be taught to:	Use media and devices safely with support and independently.	Use technology safely and respectfully. Understand how to keep personal information private and why? Where to go for help and support when they have concerns about content online and through any digital technology.	

Online safety		<p>Understanding the basics of online safety.</p> <p>Introduction to the basics of online searching.</p> <p>Understand the difference between online and real life.</p> <p>Begin to explore websites.</p> <p>Begin to understand how to trust online content.</p>	<p>Learn that the internet is a way to develop online relationships.</p> <p>Learn to recognise which websites are suitable for them to visit.</p> <p>Understand which information it is safe to share online and why?</p> <p>Learn to send and receive messages online.</p> <p>Begin to understand the difficulties in distinguishing who is and isn't real online.</p>
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