



Nunnery Wood Primary School – Computing Progression of Skills



EARLY LEARNING GOALS

- Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.
- Children follow instructions involving several ideas or actions.

By the end of the Foundation Stage most children will: • Show an interest in ICT • Know how to operate simple equipment • Complete a simple program on the computer and / or perform simple functions on ICT equipment • Find out about and identify the uses of everyday technology and use information and communication toys to support their learning.

KEY STAGE ONE

Pupils should be taught:

- 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
- 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.

KEY STAGE TWO

Pupils should be taught:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- 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
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Knowledge and Skills			
	KS1	LKS2	UKS2
Digital Literacy	<p>Make decisions about whether or not statements found on the internet are true or not. Identify devices that can be used to search the Internet. Identify what things count as personal information. Identify when inappropriate content is accessed and act appropriately. Recognise that a variety of devices can be used to connect a number of people. Consider other people's feelings on the Internet.</p>	<p>Question the 'validity' of what they see on the internet. Think before sending and comment on consequences of sending/posting. Recognise online behaviours that would be unfair. Recognise social networking sites and social networking features built into other things (such as online games and handheld games consoles). Make judgments in order to stay safe, whilst communicating with others online. Tell an adult if anything worries them online. Identify dangers when presented with scenarios, social networking profiles etc. Articulate examples of good and bad behaviour online.</p>	<p>Judge what sort of privacy settings might be relevant to reducing different risks. Judge when and when not to answer a question online. Be a good online citizen and friend. Articulate what constitutes good behaviour online. Use different sources to double check information found online. Discuss scenarios involving online risk. State the source of information found on the Internet. Act as a role model for younger pupils.</p>
Computer Science	<p>Give a set of instructions to programme a Beebot. Give a set of simple instructions to follow out a task. Improve/change a sequence of commands. Fix bugs in a set of commands. Describe algorithms.</p>	<p>Navigate the Scratch programming environment. Create a background and a sprite for a game. Add inputs to control their sprite. Use conditional statements within the program to control the sprite (if...then...)</p> <p>Type in a URL to find a website. Add websites to a favourites list. Use a search engine to find a range of media, e.g. images, texts. Think of search terms to use linked with questions they wish to answer. Talk about the reliability of information on the Internet, e.g. the difference between fact and opinion. Emails Log into an email account, open, create and send an email. Attach files to an email. Download and save files from an email. Email more than one person and reply to all.</p>	<p>Use external triggers and infinite loops to control sprites. Create and edit variables. Use conditional statements. Design their own game including sprites, backgrounds, scoring and/or timers. Use conditional statements, loops, variables and broadcast messages in the game. The game finishes when a player wins or loses and they must know they have won or lost. Evaluate the effectiveness of the game and debug as required.</p> <p>Understand websites such as Wikipedia are made by users (link to E-Safety). Use strategies to check the reliability of information (cross check with another source such as books). Use their knowledge of domain names to aid their judgment of the validity of websites. Cloud Computing Understand files may be saved off their device in 'clouds'. Upload/download a file to the cloud on different devices. Understand about syncing files using cloud computing folders. Embed photos, hyperlinks and videos into posts. Reorganise posts and remove posts they no longer want.</p>

<p>Information Technology</p>	<p>Use ICT to generate ideas for their work. Use various tools such as brushes, pens, rubber, stamps, shapes. Save, retrieve and print work. Use spacebar, backspace, delete, arrow keys, return. Start to use two hands when typing. Word process short texts to present. Record sound at and away from a computer. Use software to record sounds. Change sounds recorded. Save, retrieve and edit sounds.</p>	<p>Acquire, store and combine images from cameras or the internet for a purpose. Select certain areas of an image and resize, rotate and invert the image. Edit pictures using a range of tools in a graphics program. Plan what they would like to happen in their animation. Take a series of pictures to form an animation. Move items within their animation to create movement on playback. Edit and improve their animation. Capture video for a purpose. Choose which clips to keep and which to discard. Trim and arrange clips to convey meaning. Add titles, credits, slide transitions, special effects. Text Get quicker at typing with both hands. Use a variety of font sizes, styles and colours. Align text left, right and centre.</p>	<p>Collect audio from a variety of resources including own recordings and internet clips. Create a multi-track recording using effects. Edit and refine their work to improve outcomes. Storyboard and capture videos for a purpose. Plan for the use of special effects and transitions. Trim, arrange and edit audio levels to improve quality of their outcome. Export their video. Work independently to create a multi slide presentation. Use transitions and animations to improve the quality of the presentation. Include sounds and moving graphics in the slides. Present to a large group or class using the notes made.</p>
--------------------------------------	---	---	--