

Year 4 - Skills & Knowledge Progression By Strand

Year	Multimedia	Programming	Online	E-Safety	Data
4	<p>Unit 1: Animation</p> <p>Plan what they would like to happen in their animation.</p> <p>Take a series of pictures to form an animation.</p> <p>Move items within their animation to create movement on playback.</p> <p>Edit/improve their animation.</p> <p>Unit 2: Video (MovieMaker)</p> <p>Capture video for a purpose.</p> <p>Discuss the quality of videos and chose which to keep and which to re-shoot.</p> <p>Trim and arrange clips to convey meaning.</p> <p>Add titles, credits, slide transitions, special effects and talk about the effect these have on the audience.</p>	<p>Unit 1: Scratch <i>Racing car</i></p> <p>Navigate the Scratch programming environment.</p> <p>Create a background/sprite</p> <p>Add inputs to control their sprite.</p> <p>Use conditional statements (if... then) within their game.</p> <p>Unit 2: Kodu</p> <p>Create a 3D digital world for a game with land, water and scenery.</p> <p>Add a sprite to their world.</p> <p>Program their sprite to navigate their 3D world with an input.</p> <p>Use conditional statements ('if...then') to create dangerous items in their world.</p>	<p>Unit 1: Emails</p> <p>Log in to an email, open emails, create and send replies.</p> <p>Attach files to an email.</p> <p>Download and save files from an email.</p> <p>Email more than one person and participate in group emails by 'replying to all'.</p> <p>Unit 2: Video conferencing</p> <p>Load and add a contact to Skype.</p> <p>Make/receive and voice and video call.</p> <p>Adjust the audio/video settings to ensure good quality of the call.</p>	<p>Recognise social networking sites and social networking features built into other things (such as online games and handheld games consoles).</p> <p>Make judgments in order to stay safe, whilst communicating with others online.</p> <p>Tell an adult if anything worries them online.</p> <p>Identify dangers when presented with scenarios, social networking profiles, etc.</p> <p>Articulate examples of 'good' and 'bad' behaviour online.</p>	<p>Create and search a branching database.</p> <p>Sort and organise information to use in other ways.</p> <p>Create a database from information I have selected.</p>

Year 4 - Key Knowledge Objectives – Programming

- Algorithms can include selection (*if*) and repetition (*loops*).
- Algorithms may be decomposed into component parts (*procedures*), each of which itself contains an algorithm.
- It can be easier to plan, test and correct parts of an algorithm separately.
- The idea of a program as a sequence of *statements* written in a programming language [Scratch]
- One or more mechanisms for *selecting* which statement sequence will be executed, based upon the value of some data item
- Programs can be created using visual tools. They can use a variety of control structures [selections and procedures].