



## St Anne's CE Primary School – Computing Knowledge and Progression of skills

|                      | Nursery   | Reception  | Year 1  | Year 2   | Year 3   | Year 4   | Year 5  | Year 6  |
|----------------------|---|--|---|--|--|--|---|---|
| Digital Productivity | <p>Seeks to acquire basic skills in turning on and operating some ICT equipment. (22-36m)</p> <p>Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car. (22-36m)</p> | <p>Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. (30-50m)</p> <p>Knows that information can be retrieved from computers (30-50m)</p> | <p>Choose appropriate tools in a program to create art (eg: paint, pencil, text boxes).</p> <p>Make comparisons with working non-digitally.</p> <p>Explore object labels and use them to sort and group objects by properties.</p> <p>Use a computer to create and format text and begin to compare to writing non-digitally.</p> | <p>Capture and change digital photographs for different purposes.</p> <p>Collect data and organise and present data on a computer.</p> <p>Use a computer as a tool to explore rhythms before creating a musical composition.</p> | <p>Capture and edit digital images to produce an animation.</p> <p>Build databases to group objects.</p> <p>Create documents by modifying text, images and page layouts for a purpose.</p> | <p>Capture and edit audio to produce a podcast.</p> <p>Recognise how and why data is collected over time.</p> <p>Begin to use data loggers to investigate.</p> <p>Begin to manipulate digital images and reflect on the impact of purpose.</p> | <p>Plan, capture and edit a video.</p> <p>Use a database to order data and create charts to answer questions.</p> <p>Create images using layers and a group of objects.</p> | <p>Design and create webpages, considering copyright.</p> <p>Answer questions by using spreadsheets to calculate data.</p> <p>Plan, develop and evaluate 3D computer model of images.</p> |



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| Digital Programming | Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. (30-50m)                          | Completes a simple program on a computer.(40-60m)                             | Write short algorithms and programs for floor robots (Beebots). | Create and debug simple programs.                                | Identify that digital devices have inputs, processes and outputs.            | Recognise the internet as a network and begin to question why we should evaluate online content.    | Identify and explore how information is shared between networks and digital systems. | Recognise how the WWW can be used to communicate and search for information. |
|                     | Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. (30-50m) | Uses ICT hardware to interact with age-appropriate computer software.(40-60m) | Begin to predict program outcomes.                              | Begin to use logical reasoning to make predictions for outcomes. | Begin to explore how devices can be connected to make networks.              | Use a text-based programming language to explore count-controlled loops to create shapes and games. | Explore conditions and selection using a programmable microcontroller.               | Explore variables when designing and coding a game.                          |
|                     | Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound,                      | Knows that information can be retrieved from computers (30-50m)               | Design and program the movement of a character on screen.       | Design algorithms that use events to trigger a sequence of code. | Create sequences in block-based language to create a digital piece of music. |   | Explore selection to design and code.  | Design and code a project that captures inputs.                              |



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|                 | movements or new images. (30-50m)<br><br>Knows that information can be retrieved from computers (30-50m) | <b>Early Learning Goal</b> Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. |   |   |   |   |   |  |
| <b>E-Safety</b> | Begin to understand technology needs to be respected.  | Identify technology needs to be respected.  | Recognise technology in school and being to use it responsibly. | Identify technology and how if we use it responsibly, it improves our world in school and beyond. | Identify technology and how if we use it responsibly, it improves our world in school and beyond. Begin to know how to report concerns when using technology. | Know technology needs to be used responsibly and the effect on how it improves world, school and beyond. Explore different behaviours when using technology. Know a way to report concerns. | Use technology safely, respectfully and responsibly; begin to recognise acceptable/unacceptable behaviour when online; know some ways how to report concerns, | Use all technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |