**The Piggott School: Charvil Primary**

'Go and do Likewise' Luke 10:25, -37 The Parable of the Good Samaritan
We live with love and compassion, seeking help in times of need

**Curriculum Map: Computing Year 5**

| | **Autumn 1**<br>**Computing systems and networks – systems and searching** | **Autumn 2**<br>**Creating media – video production** | **Spring 1**<br>**Creating media – vector graphics** | **Spring 2**<br>**Data and information – Flat-file databases** | **Summer 1**<br>**Programming A – Selection in physical computing** | **Summer 2**<br>**Programming B – Selection in quizzes** |
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| **Content**<br>Declarative Knowledge 'I know' | *Recognise that a system is a set of interconnected parts which work together<br>*Explain that computers can be connected together to form IT systems<br>*identify that data can be transferred between IT systems<br>*recognise inputs, processes and outputs in large IT systems<br>*explain why search engines create indices<br>*explain the role of web-crawlers | *explain the features of video as a visual media format<br>*recognise which devices can and can't record video<br>*explain the purpose of a story board<br>*recognise that filming techniques can be used to create different effects<br>*recognise the need to regularly review and reflect on a video project<br>*explain the limitations of editing video on a recording device | *identify that a vector drawing comprises separate objects<br>*recognise that each object is a drawing is in its own layer<br>*recognise that vector images can be called without impact on quality<br>*consider the impact of choices made<br>*recognise that objects can be modified in groups<br>*explain how alignment and size guides can help create a more consistent drawing | *explain that a computer program can be used to organise data<br>*explain that tools can be used to select data to answer questions<br>*outline how ordering data allows us to answer some questions<br>*outline how operands can be used to filter<br>*outline how AND and OR can be used to refine data selection<br>*explain that computer programs can be used to compare data visually | *explain that a condition can only be true of false<br>*relate that a count-controlled loop contains a condition<br>*compare a count-controlled loop with a condition-controlled loop<br>*explain that a condition-controlled loop will stop when a condition is met<br>*explain that when a condition is met, a loop will complete a cycle before it stops<br>*explain that selection can be used to branch the flow of a programme of a program | *explain that a condition can only be true of false<br>*explain that selection can be used to branch the flow of a program a series of instructions as a sequence<br>*recall that a series of instructions can be issued before they are enacted<br>*use logical reasoning to predict the outcome of a program |

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| **Skills** Procedural Knowledge 'I know how to' | *demonstrate that different search terms produce different results<br>*evaluate the results of search terms | *use different camera angles<br>*use pan, tilt and zoom<br>*identify features of a video recording device or application<br>*combine filming techniques for a given purpose<br>*determine what scenes will convey your ideas<br>*decide what changes I will make when editing<br>*choose to reshoot a scene or improve later through editing<br>*decide what changes I will make when editing<br>*use split, trim and crop to edit video | *add an object to a vector drawing<br>*select one object or multiple objects<br>*reposition, modify, duplicate, group, ungroup, delete objects<br>*combine options to achieve the desired effect<br>*create a vector drawing for a given purpose | *choose different ways to view data<br>*ask question that need more than one attribute to answer<br>*choose which attribute and value to search by to answer a given question (operands)<br>*choose which attribute to sort data by to answer a given question<br>*choose multiple criteria to search data to answer a given question (AND and OR)<br>*select an appropriate graph to visually compare data<br>*choose suitable ways to present information to other people | *create a condition-controlled loop<br>*use a condition in an "if…then…" statement to start an action<br>*use selection to switch the program flow in one of two ways<br>*use a condition in an "if…then…else…" statement to produce given outcomes | *choose a condition to use in a program<br>*create a condition-controlled loop<br>*use a condition in an "if…then…" statement to start an action<br>*use selection to switch program flow<br>*use "if…then…else" to switch program flow in one of two ways |
| **Vocabulary** | System, interconnected, inputs, processes, outputs, search engines, indices, web crawlers, targeted advertising, search terms | Visual media format, video, camera angle, pan, tilt, zoom, storyboard, shooting, editing, split, trim, crop | Vector drawing, object, delete, modify, duplicate, reposition, group, ungroup, layer, scaled, quality, alignment | Computer program, data, attribute, search value, operands (question) | Condition, true, false, count-controlled loop, program, branch "if…then…else" statements, microcontroller | Condition, true, false, count-controlled loop, condition-controlled loop, program flow, "if…then…else" statements |
| **Key Questions** | How do we capture, edit and manipulate | What devices can capture photos? How | How can I create a vector drawing? | What is a flat-file database? How can it | What is selection in programming? What | How can we use algorithms to |

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| | video? How can we take an idea from conception to completion? | can we capture, edit and improve photos? How can we identify fake images? | What different drawing tools can I use to help create images? How can I layer objects? | be used to organise data? How can I use a real-life data base to answer a question and present my work to others? | is a microcontroller? How can conditions be used to control the flow of actions? | construct programs in Scratch? How can we write programs that ask questions and use selection to control the outcomes based on answers given? |
| **Assessment** | Self-assessment in every lesson with success criteria for each lesson<br>Observations by teacher | | | | | |
| **Cross Curricular Links/Character Education** | E-safety/digital citizenship: understanding of digital footprint or digital personality and how this affects the type of information returned to them | Internet safety: use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour | Art and Design: composition | Literacy: presentation skills | Individual liberty: pupils are given freedom to experiment with creating programs<br>Individual liberty: Composition provides opportunity for independent choice | |