| | Computer Science | Information Technology | Digital Literacy |
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| **YEAR 6** | **Solve problems by decomposing them into smaller parts** | **Combine a variety of software to accomplish given goals** | **Understand the opportunities computer networks offer for collaboration** |
| | Plan, create, test, modify and refine control sequences which use inputs and outputs, e.g. using if … then … commands to control events taking account of purpose and needs. (LC)<br><br>Devise, test and refine more effective control sequences incorporating conditional statements, procedures and sub-routines, taking account of purpose and needs. | Plan and develop structured solutions to tasks which use a combination of ICT tools and techniques. (IVA & S)<br><br>Develop and use criteria to critically evaluate the quality of solutions, identifying improvements and refining their work. (IVA & S)<br><br>Make effective use of transitions and animations in presentations. Consider their appropriateness and overall effect on the audience. (TM)<br><br>Uses peer and self-assessment to evaluate presentations and make improvements. (TM)<br><br>Make use of reviewing tools (comments) in word processors to collaborate and evaluate each other's work.(TM)<br><br>Create an outline plan for a non-linear presentation; producing a diagram to demonstrate understanding how pages link and the need for clarity. (TM)<br><br>Format and edit work to improve clarity and purpose using a range of tools, e.g. cut and paste, justify, tabs, insert and replace. (TM)<br><br>Use appropriate editing tools to ensure their work is clear and error free, e.g. spell checker, thesaurus, find and replace. (TM)<br><br>Use a variety of layouts, formatting, graphics and illustrations for different purposes or audiences (TM) | Independently, and with regard for safety, select and use appropriate communication tools to solve problems by collaborating and communicating with others within and beyond school. (EC)<br><br>Extend online publishing to a more global audience. (EC)<br><br>Select, combine and use internet services.<br><br>Understand the potential of information technology for collaboration when computers are networked.<br><br>Recognise ethical issues surrounding the application of Information Technology beyond school.<br><br>Pupils learn that children's websites must protect their private information. Learn to identify these secure sites by identifying their privacy policies seals of approval.<br><br>Explore how it feels to be cyberbullied. How is it similar/ different to bullying? How to deal with cyberbullying when it arises. |
| | **Use selection in programs** | | |
| | Independently select process and import images, video and sounds from a variety of sources to enhance presentations. (TM) | | |
| | **Work with variables** | | |
| | Plan, create, test, modify and refine control sequences which use inputs and outputs, e.g. using if … then … commands to control events taking account of purpose and needs. (LC)<br><br>Understand the difference between, and appropriately use if and if, then and else statements. Use a variable and relational operators within a loop to govern termination. | | **Be discerning in evaluating digital content** |
| | | | Use appropriate strategies for finding, critically evaluating, validating and verifying information. (DR)<br><br>Distinguish between fact and opinion, developing skills to question where online content might originate from, using their knowledge for example of domain names and common website extensions. (DR)<br><br>Make judgements about digital content when evaluating and repurposing it for a given audience. |
| | **Use logical reasoning to explain how some simple algorithms work** | | |
| | Design, write and debug modular programs using procedures. Know that a procedure can be used to hide the detail with sub- solution (procedural abstraction). | **Select, use and combine software on a range of digital devices** | |
| | | Plan and develop structured solutions to tasks which use a combination of ICT tools and techniques. (IVA & S) | |
| | **Understand computer networks including the Internet** | | Explore how the media can play a powerful role in shaping our ideas of girls and boys. |
| | Understand why and when computers are used. Understand the main functions of the operating system. | | Identify messages about gender roles. |
| | **Appreciate how search results are ranked** | **Analyse data** | Learn the internet is not a place to reveal private information to |

| | | | people they know only online. |
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| | Understand how to effectively use search engines, and know how search results are selected, including that search engines use 'web crawler programs'. | Select and use the most appropriate method to organise, present, analyse and interpret data. (DH)<br><br>Solve complex enquiries involving selecting, processing, and presenting data; drawing conclusions from their work. (DH) | Create comic strips to show an act of poor digital citizenship. |
| **YEAR 6** | | **Evaluate data** | |
| | | Using knowledge and understanding of spreadsheet modelling, develop simple spreadsheet models to investigate real life problems. (SSM)<br><br>Perform more complex searches for information e.g. using Boolean and relational operators. Analyse and evaluate data and information, and recognise that poor quality data leads to unreliable results, and inaccurate conclusions.<br><br>Use criteria to evaluate the quality of solutions, can identify improvements making some refinements to the solution, and future solutions.<br><br>Query data on one table using a typical query language. | |
| | | **Design and create systems** | |
| | | Design questions and perform complex searches using key words, to search a large pre-prepared database looking for relationships and patterns. (DH)<br><br>Design a data capture form, e.g. a questionnaire or table to collect information to answer a specific question. (DH)<br><br>Design investigations which require the use of dataloggers recognising what measurements will be needed and the most appropriate means of recording the data. (DL)<br><br>Know the difference between physical, wireless and mobile networks. | |

| Key for Lancashire Progressions: | **TM** = Text & Multimedia | **IVA** = Images, Video & Animation | **S** = Sound | **EC** = Electronic Communication |
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| **DR** = Digital Research | **DH** = Data Handling | **DL** = Data Logging | **LC** = Logo & Control | **SSM** = Simulations & Spreadsheet modelling |