

## YEAR SIX

|                                                        | AUTUMN ONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | AUTUMN TWO                                                                                                                                                                                                                                                                                                                               | SPRING ONE                                                                                                                                                                                                                                                                                                                                                                                                                                       | SPRING TWO                                                                                                                                                                                                                                                                                                                               | SUMMER ONE                                                                                                                                                                                                                                                                                                                               | SUMMER TWO                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <b>AREA OF COMPUTING</b>                               | 1)Digital Literacy<br><br>2)Computer Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Information Technology                                                                                                                                                                                                                                                                                                                   | Computer Science                                                                                                                                                                                                                                                                                                                                                                                                                                 | Information Technology                                                                                                                                                                                                                                                                                                                   | Information Technology                                                                                                                                                                                                                                                                                                                   | Computer Science                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>UNIT</b>                                            | 1)Online Safety (2) – 6.2<br>Please add in lessons on digital search from Key Skills<br><br>2)Networks (3) – 6.6                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1)Blogging (4) – 6.4<br><br>2) Presentations (multimedia) – not a Purple Mash Unit                                                                                                                                                                                                                                                       | Text Adventures (5) – 6.5                                                                                                                                                                                                                                                                                                                                                                                                                        | Spreadsheets (5 - 8) – 6.3 and 6.9                                                                                                                                                                                                                                                                                                       | Quizzing (6) – 6.7                                                                                                                                                                                                                                                                                                                       | Coding (6) – 6.1                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>PROGRAMMES</b>                                      | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1)2Blog                                                                                                                                                                                                                                                                                                                                  | 2Code<br>2Connect                                                                                                                                                                                                                                                                                                                                                                                                                                | 2Calculate moving onto Excel or Google Sheets                                                                                                                                                                                                                                                                                            | 2Quiz<br>2DIY<br>Text Toolkit<br>2Investigate                                                                                                                                                                                                                                                                                            | 2Code                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>NATIONAL CURRICULUM PROGRAMME OF STUDY COVERAGE</b> | <p>Be discerning in evaluating digital content. (6.1)</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. (6.1)</p> <p>Understand the opportunities computer networks offer for communication and collaboration. (6.1)</p> <p>Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web. (6.6)</p> <p>Appreciate how results are selected and ranked. (6.6)</p> | <p>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.</p> <p>Use search technologies effectively.</p> | <p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> | <p>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.</p> <p>Use search technologies effectively.</p> | <p>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.</p> <p>Use search technologies effectively.</p> | <p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> |

## YEAR SIX

| AUTUMN ONE                                                                                                                                    | DIGITAL LITERACY | ONLINE SAFETY                                                                                                                                                                                                                                                        | Units 6.2 Purple Mash |
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| SKILLS (LANCASHIRE KEY LEARNING)                                                                                                              |                  | KNOWLEDGE AND UNDERSTANDING                                                                                                                                                                                                                                          |                       |
| Locate and respond appropriately to the terms and conditions on websites.                                                                     |                  | Understand that web users have to observe the terms and conditions of websites.                                                                                                                                                                                      |                       |
| Identify unsuitable posts (e.g. on blogs, a forum ...) pertaining to content and conduct.                                                     |                  | Understand that electronic communication can be malicious or inappropriate and recognise when an attachment may be unsafe to open.                                                                                                                                   |                       |
| Identify inappropriate and unacceptable behavior when analysing resources such as videos, text-based scenarios and electronic communications. |                  | Know what a 'strong' password / understand the importance of keeping personal data secure. Understand they have a right to be protected from inappropriate use of technology by others and the need to respect the rights of other users.                            |                       |
| Continue to develop the skills to identify risks involved with contact, content and their own conduct whilst online.                          |                  | Know a range of ways to report concerns about content and contact.                                                                                                                                                                                                   |                       |
| Use electronic communication and collaboration tools safely.                                                                                  |                  | Understand that electronic communication can be malicious or inappropriate and recognise when an attachment may be unsafe to open.<br>Understand that social network or other online environments have security settings, which can be altered, to protect the user. |                       |

## YEAR SIX

| AUTUMN ONE                                     | DIGITAL LITERACY | NETWORKS                                                                                                                                                 | Units 6.6 Purple Mash |
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| SKILLS (LANCASHIRE KEY LEARNING)               |                  | KNOWLEDGE AND UNDERSTANDING                                                                                                                              |                       |
| None noted in Lancashire Key Learning Document |                  | Understand how search engines work and know that there are different search engines; some to search within sites, and some to search the wider Internet. |                       |
|                                                |                  | Understand the importance of keywords and 'linked' pages in the listing/ranking of websites.                                                             |                       |
|                                                |                  | Understand what 'ranking' is when related to search engines                                                                                              |                       |
|                                                |                  | Understand the difference between the internet and the world wide web.                                                                                   |                       |
|                                                |                  | Understand what an IP (Internet Protocol) address is.                                                                                                    |                       |
|                                                |                  | Know about the key components of a network and how networks work.                                                                                        |                       |
|                                                |                  | Understand that the Internet provides many different services.                                                                                           |                       |

## YEAR SIX

| AUTUMN TWO                                                                                                                                                                                                                                                                               |  | INFORMATION TECHNOLOGY                                                                                                                                                                                                                                                                             | BLOGGING | Unit 6.4 Purple Mash |
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| SKILLS (LANCASHIRE KEY LEARNING)                                                                                                                                                                                                                                                         |  | KNOWLEDGE AND UNDERSTANDING                                                                                                                                                                                                                                                                        |          |                      |
| Select, use and combine internet services to create digital 'content' (inc. programs and systems).                                                                                                                                                                                       |  | Understand the importance of content and editing to produce digital content for specific audiences.<br>Understand that many different devices can be used in isolation and sometimes together to produce digital 'content'.                                                                        |          |                      |
| Demonstrate awareness of intended audience in work.                                                                                                                                                                                                                                      |  | Understand the potential of multimedia to inform or persuade and know how to integrate words, images and sounds imaginatively for different audiences and purposes.                                                                                                                                |          |                      |
| Independently select the most appropriate ICT tools for intended purpose and audience.                                                                                                                                                                                                   |  | Know how to select suitable software tools to accomplish specific goals and tasks                                                                                                                                                                                                                  |          |                      |
| Routinely evaluate and improve work as part of the design process.                                                                                                                                                                                                                       |  | Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation.                                                                                                                                                                                  |          |                      |
| Use a range of digital devices to produce digital 'content'.                                                                                                                                                                                                                             |  | Understand the importance of content and editing to produce digital content for specific audiences.<br>Understand that many different devices can be used in isolation and sometimes together to produce digital 'content'.<br>Understand that you can convert between different formats of files. |          |                      |
| Develop and use criteria to evaluate design and layout of a range of resources including web sites, pages on VLE, online resources and presentations.                                                                                                                                    |  | Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation.                                                                                                                                                                                  |          |                      |
| Evaluate design and layout of a range of resources including web sites, pages on VLE, online resources and presentations.                                                                                                                                                                |  | Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation.                                                                                                                                                                                  |          |                      |
| Independently, and with regard for eSafety, select and use appropriate communication tools to solve problems by collaborating and communicating with others within and beyond school, e.g., email, discussion forums, blogs, wikis, text messages and other digital communication tools. |  | Understand the potential benefits and risks of digital communication and that methods will vary according to purpose.                                                                                                                                                                              |          |                      |
| Make use of webcams and /or video conferencing, if appropriate and available, e.g., to exchange ideas and collaborate on projects with external providers, another class or school, or abroad.                                                                                           |  | Know how to take images appropriately and responsibly<br>Understand the implications of copyright and apply this to work.                                                                                                                                                                          |          |                      |
| Extend online publishing to a more global audience, e.g. creating and publishing web pages, blog and podcasting.                                                                                                                                                                         |  | Understand what open-source software is and the conditions of use when using it.                                                                                                                                                                                                                   |          |                      |
| Evaluate the effectiveness of a variety of digital communication tools for communicating and collaborating.                                                                                                                                                                              |  | Understanding of which tools are better for communicating or collaborating and those that can be used both.                                                                                                                                                                                        |          |                      |

## YEAR SIX

| AUTUMN TWO                                                                                                                                                                                                                                         | INFORMATION TECHNOLOGY | PRESENTATIONS - MULTIMEDIA                                                                                                                                                                                                                                                                                                                                                                                                                                    | NOT A PURPLE MASH UNIT |
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| SKILLS (LANCASHIRE KEY LEARNING)                                                                                                                                                                                                                   |                        | KNOWLEDGE AND UNDERSTANDING                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        |
| Create an outline plan for a non-linear presentation; producing a diagram to demonstrate understanding how pages link and the need for clarity.                                                                                                    |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |
| Develop the use of hyperlinks to produce more effective, interactive, non-linear presentations.                                                                                                                                                    |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |
| Use of hyperlinks to produce more effective, interactive, non-linear presentations.                                                                                                                                                                |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |
| Develop consistency across a document - same style of font, colour, body text size, etc.                                                                                                                                                           |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |
| Make effective use of transitions and animations in presentations. Consider their appropriateness and overall effect on the audience. Independently select, process and import images, video and sounds from a variety of sources to enhance work. |                        | Know that images (still and moving) can be used to enhance presentations or communicate ideas.                                                                                                                                                                                                                                                                                                                                                                |                        |
| Format and edit work to improve clarity and purpose using a range of tools, e.g. cut and paste, justify, tabs, insert and replace.                                                                                                                 |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |
| Through peer and self assessment, evaluate presentations and make improvements.                                                                                                                                                                    |                        | Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation.<br>Discuss and evaluate own and others' images and movies, refining for given audience or task.                                                                                                                                                                                                                                             |                        |
| Make use of transitions and special effects in video editing software, understanding the effect on the audience.                                                                                                                                   |                        | Know that images (still and moving) can be used to enhance presentations or communicate ideas.                                                                                                                                                                                                                                                                                                                                                                |                        |
| Export images, presentations and movies in formats appropriate for the purpose and use them in multimedia presentations.                                                                                                                           |                        | Know that images (still and moving) can be used to enhance presentations or communicate ideas.<br>Understand that computers can save digital images, graphics and movies in many different file formats and that some are better suited to certain purposes than others. Understand the need for caution when using the Internet to search for images and what to do if unsuitable images are found.<br>Know how to take images appropriately and responsibly |                        |
| Plan and create a short animated sequence to communicate a specific idea, using a storyboard and timeline.                                                                                                                                         |                        | Discuss and evaluate own and others' images and movies, refining for given audience or task.                                                                                                                                                                                                                                                                                                                                                                  |                        |
| Design and create a short animated sequence.                                                                                                                                                                                                       |                        | Understand the potential of multimedia to inform or persuade and know how to integrate words, images and sounds imaginatively for different audiences and purposes.                                                                                                                                                                                                                                                                                           |                        |

## YEAR SIX

| SPRING ONE                                                                                                | COMPUTER SCIENCE | TEXT ADVENTURES                                                                                                                                                                    | Unit 6.5 Purple Mash |
|-----------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| SKILLS (LANCASHIRE KEY LEARNING)                                                                          |                  | KNOWLEDGE AND UNDERSTANDING                                                                                                                                                        |                      |
| Use repetition* and selection* in programs.                                                               |                  | Know the meaning of the key terms: selection, variables and decomposition.                                                                                                         |                      |
| Design and create programs using decomposition.                                                           |                  | Know the meaning of the key term decomposition.                                                                                                                                    |                      |
| Design programs to accomplish specific tasks or goals.                                                    |                  | Know that programs can be represented in different formats including written and diagrammatic.<br>Understand the need for precision when creating sequences to ensure reliability. |                      |
| Use logical reasoning to develop systematic strategies that can be used to debug algorithms and programs. |                  | Know the meaning of logical reasoning.<br>Understand that there are often different ways to solve the same problem or task                                                         |                      |
| Use procedures in programs..                                                                              |                  | Understand what a procedure is and why it is important in programs.                                                                                                                |                      |
| Design, test and refine programs to control robots or floor turtles taking account of purpose and needs.  |                  | Know that programs can be represented in different formats including written and diagrammatic.<br>Understand the need for precision when creating sequences to ensure reliability. |                      |
| Use programming software to create simulations.                                                           |                  | Understand how experiences of programming / control relate to control systems in the real world.                                                                                   |                      |

## YEAR SIX

| <div> <div>SPRING TWO</div> <div>INFORMATION TECHNOLOGY</div> <div>SPREADSHEETS</div> <div>Unit 6.3 and 6.9 Purple Mash</div> </div>                                                            |                                                                                                                                                                                                                                                                        |
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| SKILLS (LANCASHIRE KEY LEARNING)                                                                                                                                                                | KNOWLEDGE AND UNDERSTANDING                                                                                                                                                                                                                                            |
| Enter formulae into a pre-prepared spreadsheet - explore the effects of changing variables.                                                                                                     | Understand when and where it is appropriate to use a spreadsheet model or a simulation to support an investigation and explain their choices.                                                                                                                          |
| Develop simple spreadsheet models to investigate a real life problem.                                                                                                                           | Understand that spreadsheets can automate functions, making it easier to test variables, e.g. when planning a budget you can change the number of items and see the changes to total cost.                                                                             |
| Create simple spreadsheet models to investigate a real life problem.                                                                                                                            | Understand that spreadsheets can be used to explore mathematical models.<br>Understand that spreadsheets can automate functions, making it easier to test variables, e.g. when planning a budget you can change the number of items and see the changes to total cost. |
| Identify and enter the correct formulae into cells. Make predictions of the outcome of changing variables.                                                                                      | Understand the need for accuracy and frequent checking when entering formulae.<br>Understand the possible consequences of using inaccurate data or formulae.                                                                                                           |
| Construct, refine and interpret bar charts, scatter graphs, line graphs and pie charts.                                                                                                         | Understand which searches and graph types are relevant to a specific problem and types of information.                                                                                                                                                                 |
| Discuss how IT enables you to search and sift through large amounts of different types of information and describe the advantages of using the tools                                            |                                                                                                                                                                                                                                                                        |
| Design a data capture form, e.g. a questionnaire or table to collect information to answer a specific question.                                                                                 |                                                                                                                                                                                                                                                                        |
| Present data to a specified audience and display findings in other software, e.g. through presentation software.                                                                                | Understand the importance of presentation techniques aimed at a specific audience.                                                                                                                                                                                     |
| Compare different charts and graphs, e.g., in tables, frequency diagrams, pictograms, bar charts, databases or spreadsheets and understand that different ones are used for different purposes. | Understand which searches and graph types are relevant to a specific problem and types of information.                                                                                                                                                                 |
| Select and use the most appropriate method to organise present, analyse and interpret data.                                                                                                     |                                                                                                                                                                                                                                                                        |

## YEAR SIX

| SUMMER ONE                                                                                                                                            |  | INFORMATION TECHNOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                             | QUIZZING | Unit 6.7 Purple Mash |
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| SKILLS (LANCASHIRE KEY LEARNING)                                                                                                                      |  | KNOWLEDGE AND UNDERSTANDING                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |                      |
| Develop and use criteria to evaluate design and layout of a range of resources including web sites, pages on VLE, online resources and presentations. |  | Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation.<br>Understand the potential of multimedia to inform or persuade and know how to integrate words, images and sounds imaginatively for different audiences and purposes.<br>Recognise the features of good design in different printed and electronic texts, (e.g. a poster, website, presentation). Talk about design in the context of own work. |          |                      |
| Select suitable text, sounds and graphics from other electronic sources, and import into own work.                                                    |  | Recognise the features of good design in different printed and electronic texts, (e.g. a poster, website, presentation). Talk about design in the context of own work.                                                                                                                                                                                                                                                                                             |          |                      |
| Format and edit work to improve clarity and purpose using a range of tools, e.g. cut and paste, justify, tabs, insert and replace.                    |  | Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation.                                                                                                                                                                                                                                                                                                                                                  |          |                      |
| Through peer and self-assessment, evaluate presentations and make improvements.                                                                       |  | Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation.                                                                                                                                                                                                                                                                                                                                                  |          |                      |

## YEAR SIX

| SUMMER TWO                                                                                                | COMPUTER SCIENCE | CODING                                                                                                                                                                               | Unit 6.1 Purple Mash |
|-----------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| SKILLS (LANCASHIRE KEY LEARNING)                                                                          |                  | KNOWLEDGE AND UNDERSTANDING                                                                                                                                                          |                      |
| Use repetition* and selection* in programs.                                                               |                  | Know the meaning of the key terms: selection, variables and decomposition.                                                                                                           |                      |
| Use variables* in programs.                                                                               |                  | Know the meaning of the key terms: selection, variables and decomposition.                                                                                                           |                      |
| Design and create programs using decomposition.                                                           |                  | Know the meaning of the key terms: selection, variables and decomposition.                                                                                                           |                      |
| Design programs to accomplish specific tasks or goals.                                                    |                  | Know that programs can be represented in different formats including written and diagrammatic.<br>Understand that programming software can create simple and complex simulations.    |                      |
| Use logical reasoning to develop systematic strategies that can be used to debug algorithms and programs. |                  | Know the meaning of logical reasoning.                                                                                                                                               |                      |
| Use procedures in programs..                                                                              |                  | Understand what a procedure is and why it is important in programs.                                                                                                                  |                      |
| Design, test and refine programs to control robots or floor turtles taking account of purpose and needs.  |                  | Understand the need for precision when creating sequences to ensure reliability.<br>Understand how experiences of programming / control relate to control systems in the real world. |                      |
| Use programming software to create simulations.                                                           |                  | Understand how experiences of programming / control relate to control systems in the real world.<br>Understand that there are often different ways to solve the same problem or task |                      |