

YEAR FIVE

	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONE	SUMMER TWO
AREA OF COMPUTING	Digital Literacy	Information Technology	Computer Science	Information Technology	Computer Science	Information Technology
UNIT	Online Safety (3) – 5.2 Please add in lessons on digital search from Key Skills	1)Databases (4) – 5.4 2) 3D Modelling (4) – 45.6	Games Creator (5) – 5.5	Spreadsheets (6) – 5.3	Coding (6) – 5.1	Word Processing (8) – 5.8
PROGRAMMES	None	1)2Question 2Investigate 2) 2Design and Make	2DIY 3D	2Calculate	2Code	MS Word or Google Docs
NATIONAL CURRICULUM PROGRAMME OF STUDY COVERAGE	Be discerning in evaluating digital content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Understand the opportunities computer networks offer for communication and collaboration.	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. Use search technologies effectively.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web. Appreciate how results are selected and ranked.	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. Use search technologies effectively.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	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. Use search technologies effectively.

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AUTUMN ONE	DIGITAL LITERACY	ONLINE SAFETY	Units 5.2 Purple Mash
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. Understand that social network or other online environments have security settings, which can be altered, to protect the user.	
Use strategies to verify the accuracy and reliability of information, distinguishing between fact and opinion, e.g. cross checking with different websites or books.		Understand when and where the internet can be used as a research tool. Understand that good online research involves processing information, and interpreting it for others rather than direct copying.	
Identify whether a file has copyright restrictions and can be legally downloaded from the internet then used in their own work.		Know that resources and materials can be covered by copyright and downloading these materials is illegal.	
Use appropriate strategies for finding, critically evaluating, validating and verifying information, e.g., using different keywords, skim-reading to check relevance of information, cross checking with different websites or other non ICT resources.		Talk about validity, plausibility and appropriateness of information, especially on the internet. Understand some of the potential dangers and impact of not validating information.	
Distinguish between fact and opinion and make informed choices about the sources of online information used to inform their work.		Talk about validity, plausibility and appropriateness of information, especially on the internet. Understand some of the potential dangers and impact of not validating information.	
Apply their knowledge of the meaning of domain names and common website extensions, e.g., .co.uk, .com, .ac, .sch .org, .gov, .net, to support the validation process.		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.	
Develop skills to question where web content might originate from and understand that this gives clues to its authenticity and reliability, e.g., by looking at web address, author, contact us sections, linked pages.		Understand that web users have to observe the terms and conditions of websites.	
Use acquired search skills to question where web content might originate from and understand that this gives clues to its authenticity and reliability, e.g., by looking at web address, author, contact us sections, linked pages.		Understand that you should not publish other peoples' material on the Internet without their permission but you can hyperlink to their websites.	
Identify how copyright restrictions can affect how a file can be used in their own work, e.g., those produced under Creative Commons Licensing.		Be aware that copying text directly from websites or non-digital resources is equivalent to stealing other people's work (plagiarism). Understand the concept of copyright and how it applies to material they find/download and to their own work. Understand the concept of plagiarism and the importance of acknowledging and referencing sources. Become aware that file sharing is usually illegal due to copyright laws and can also spread viruses.	

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AUTUMN TWO		INFORMATION TECHNOLOGY	DATABASES	Unit 5.4 Purple Mash
SKILLS (LANCASHIRE KEY LEARNING)		KNOWLEDGE AND UNDERSTANDING		
Design questions and perform complex searches using key words, to search a large pre-prepared database looking for relationships and patterns, e.g. data on the Internet; census data.				
Check the reliability of the data; identify and correct inaccuracies.		Recognise the need for accuracy when designing, entering and interrogating data and how this will affect the quality of information gained. Recognise the consequences of using inaccurate data and relate to the outside world, e.g. police, doctors, banks, school databases		
Solve complex enquiries involving selecting, processing and presenting data; drawing conclusions, e.g. is there a relationship between minibeast habitat and diet?				
Design a data capture form, e.g. a questionnaire or table to collect information to answer a specific question.				
Search data according to more than one criterion.				
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.		Understand which searches and graph types are relevant to a specific problem and types of information. Understand that there are different types of data, e.g., numeric, alphabetic, date, alphanumeric, currency.		

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AUTUMN TWO		INFORMATION TECHNOLOGY		3D MODELLING	Unit 5.6 Purple Mash
SKILLS (LANCASHIRE KEY LEARNING)			KNOWLEDGE AND UNDERSTANDING		
Explore the effects of changing variables in models and simulations in order to solve a problem.			Understand when and where it is appropriate to use a spreadsheet model or a simulation to support an investigation and explain their choices.		
Make and test predictions.			Understand when and where it is appropriate to use a spreadsheet model or a simulation to support an investigation and explain their choices.		

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SPRING ONE COMPUTER SCIENCE GAMES CREATOR Unit 5.5 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. 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. 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. 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.

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SPRING TWO INFORMATION TECHNOLOGY SPREADSHEETS Unit 5.3 Purple Mash	
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. 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. 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.	

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SUMMER ONE	COMPUTER SCIENCE	CODING	Unit 5.1 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. 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. 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. Understand that there are often different ways to solve the same problem or task	

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SUMMER TWO	INFORMATION TECHNOLOGY	WORD PROCESSING	Unit 5.8 Purple Mash
SKILLS (LANCASHIRE KEY LEARNING)		KNOWLEDGE AND UNDERSTANDING	
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. Understand that images, sounds and text can be subject to copyright and abide by copyright rules Know that images (still and moving) can be used to enhance presentations or communicate ideas.	
Develop consistency across a document - same style of font, colour, body text size, etc.		Know how to take images appropriately and responsibly Know how to select suitable software tools to accomplish specific goals and tasks	
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 potential of multimedia to inform or persuade and know how to integrate words, images and sounds imaginatively for different audiences and purposes.	
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. Discuss and evaluate own and others' images and movies, refining for given audience or task.	