

Kentmere Academy and Nursery- Knowledge and Skills- Computing

EYFS

Year Group	Concept	Learning Objective Linked to the <i>EYFS Curriculum</i>	Knowledge	Skills
NURS	Digital Literacy and Internet Safety	- To match their developing physical skills to tasks and activities in the setting (<i>Physical Development</i>) - To remember rules without needing an adult to remind them (<i>Personal, Social and Emotional Development</i>).	I know that a phone is used to communicate with others. I know who to go to for help. I know the classroom rules.	I can press the buttons on a keyboard during play. I can tell an adult when I feel upset or uncomfortable. I can ask an adult for help. I can talk about the classroom rules.
	Computer Science	To explore how things work (<i>Understanding the World</i>).	I know that an action happens when a button is pressed/knob is turned.	I can use different technological tools e.g. pulls, levers, buttons. I can turn a knob to wind up a toy.
	Information Technology	To use technology in imaginative play. (<i>Understanding the World and Expressive Arts and Design</i>)	I know that the work I create belongs to me.	I can name my work so that others know it belongs to me. I can name the parts of a computer and know what they are used for: Mouse / Screen / Keyboard.

REC	Digital Literacy and Internet Safety	- To explore, use and refine a variety of artistic effects to express their ideas and feelings. To operate simple equipment. <i>(Expressive Arts and Design)</i> - To show resilience and perseverance in the face of a challenge. - To know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time' <i>(Personal, Social and Emotional Development)</i>	I know that computers can be used to make pictures. I know what technology is used to take photographs. I know who to go to for help. I know why it is important to ask for help. I know why the classroom rules are important. I know what a healthy amount of screen time is.	I can move a mouse/touchpad with some control to point and click. I can use a mouse/touchpad to click and drag. I can use a camera with support. I can find the letters for my name on the keyboard and type my name onto my work. I can use 2create or paint to create a picture. I can create, manipulate and change images on a computer. I can recognise that I can say 'no' / 'please stop' / 'I'll tell' to somebody who asks me to do something that makes me feel sad / embarrassed / upset.
	Computer Science	To explore how things work. <i>(Understanding the World)</i>	I know that an action happens when the mouse is moved and clicked and a button is pressed (cause and effect). I know what 'instructions' are and when we might follow instructions in everyday life.	I can name items we control in the everyday environment. I can give simple instructions to a computer using the mouse and keyboard. I can give simple instructions to a Beebot to help it reach its destination.

	Information Technology technology beyond school	To develop their small motor skills so that they can use a range of tools competently, safely and confidently. (Physical Development)	I know that a range of technology can be found in different places. I know that information can be found on a computer. I know why it is important to write my name on my work. I know how to turn on different ICT equipment.	I can recognise some ways in which technology can be used to communicate with others. I can type my name on my work using a keyboard. I can open and interact with age-appropriate computer software. I can correctly and safely use and care for computing equipment and resources. I can name the parts of a computer and know what they are used for: Mouse / touchpad, Screen / Interactive Whiteboard, Keyboard.
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Cycle A- Year 1/2

Year Group	Theme and Subject Driver	Week	Learning Objective	Knowledge	Skills
<u>Year 1/2</u>	Dinosaurs and Fossils (English driver) <u>Use technology safely and respectfully</u>	Core Knowledge			
		Use technology safely and respectfully and Recognise common uses of information technology beyond school.			
		Autumn 1	To use technology safely and respectfully.	I know what it means to stay safe online.	I can log in to Purple Mash with my own username and password.
		Week 1	To login safely with their own logins and understand why that is important.	I understand the rules around E-Safety and know who I can speak to if I'm uncomfortable.	I can create my own avatar.
		<i>Purple Mash</i>	To create their own picture and add their name to it.	I understand the importance of logging in safely.	I can add my name to a picture of a dinosaur I have created.
		<i>1.1</i>			I can save my work in my digital folder.
		<i>Lesson 1</i>			

	Dinosaurs and Fossils (English driver) <u>Use technology safely and respectfully</u>	Autumn 1 Week 2 <i>Purple Mash</i> 2.5 <i>Lesson 1</i>	To understand the terminology associated with searching.	I know what the internet is. I know the meaning of 'search' and 'search engine'.	I have completed a quiz about the Internet. I can recall the meaning of key Internet terms.
	Dinosaurs and Fossils (English driver) <u>Use technology safely and respectfully</u>	Autumn 1 Week 3 <i>Purple Mash</i> 2.5 <i>Lesson 2</i>	To gain a better understanding of searching on the Internet.	I know how to read a web search results page.	I can identify the basic parts of a web search engine search page. I can search for answers to a quiz about dinosaurs on the Internet.
Year 1/2	Materials and Colours (Art driver)	Core Knowledge Use technology purposefully to create, organise, store, manipulate and retrieve digital content when creating pictures.			
		Autumn 2	To use a template to create digital content.	I know what is meant by impressionist art.	I can use 2Paint a Picture to create my own art based upon this style.

	<u>Create Digital Pictures</u>	Week 1 <i>Purple Mash</i> 2.6 <i>Lesson 1</i>		I know who Monet is. I know what a template is.	I can use a given template. I can select appropriate colours for my picture using the colour palette. I can choose the style I want to use for my picture.
	Materials and Colours (Art driver) <u>Create Digital Pictures</u>	Autumn 2 Week 2 <i>Purple Mash</i> 2.5 <i>Lesson 2</i>	To use software and tools to select appropriate tools and style.	I know what pointillism is. I know who Seurat is. I know the different tools I can use.	I can use appropriate software to create my own art based upon pointillism style. I can recognise Seurat's work. I can select the style I want to paint in. I can undo and redo mistakes. I can create a pattern or picture.
	Materials and Colours (Art driver) <u>Create Digital Pictures</u>	Autumn 2 Week 3 <i>Purple Mash</i>	To combine effects to enhance my work. To use repetition.	I know the main features of art that use repeating patterns. I know who William Morris is. I know that I can combine more than one effect to enhance my work.	I can use software to create my own art by repeating patterns. I can combine more than one effect.

		2.5 Lesson 4			
	Materials and Colours (Art driver) <u>Create Digital Pictures</u>	Autumn 2 Week 4 Purple Mash 2.5 Lesson 5	To explore collage software.	I know what surrealist art is. I know what the term 'collage means'. I know how I can create art using drawing and clipart.	I can add clipart to my drawing. I can select appropriate tools for my collage. I can use specific collage software.
<u>Year 1/2</u>	London and the UK (Geography driver) <u>technology beyond school</u>	Core Knowledge Recognise common uses of information technology beyond school and to use technology purposefully to create, organise, store, manipulate and retrieve digital content.			
		Spring 1 Week 1 Purple Mash	To walk around the local community and find examples of where technology is used.	I understand what is meant by 'technology'. I know what types of technology are used in school and out of school.	I can recognise technology in the classroom. I can use a camera to record my findings.

		1.9 Lesson 1			
	London and the UK (Geography driver) <u>technology beyond school</u>	Spring 1 Week 2 <i>Purple Mash</i> 1.9 Lesson 2	To record examples of technology outside school.	I know where technology could be used outside school.	I can record 4 examples of where technology is used away from school.
	London and the UK (Geography driver) <u>technology beyond school</u>	Spring 1 Week 3 <i>Purple Mash</i> 1.2 Lesson 1 & 2	To sort items using a range of criteria. To sort items on the computer.	I know what it means to sort objects. I know what 'criteria' means. I know different ways to sort objects. I know the features objects have in common.	I can sort items using a range of criteria. I can use technology to sort various items online using a variety of criteria
		Core Knowledge			

<u>Year</u> <u>1/2</u>	London and the UK (Geography driver) <u>Coding</u>	- To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - To use logical reasoning to predict the behaviour of simple programs.			
	Spring 2 Week 1 Purple Mash 1.4 Lesson 1	To emphasise the importance of following instructions.	I know the importance of following accurate instructions. I know that following instructions carefully gives the correct result. I know the term 'algorithm'.	I can use lego to build a London landmark. I can follow instructions carefully. I can give my partner an algorithm to build a model. I can give an example of an algorithm I use in real life.	
	London and the UK (Geography driver) <u>Coding</u>	Spring 2 Week 2 Purple Mash 1.4 Lesson 1	To follow and create simple instructions on the computer.	I know that computers need precise instructions to follow. I know that an algorithm written for a computer to follow is called a program.	I can follow instructions on a computer program. I can explain the effect of carrying out a task with no instructions. I can create program code.

	London and the UK (Geography driver) <u>Coding</u>	Spring 2 Week 3 <i>Purple Mash</i> 1.4 <i>Lesson 1</i>	To consider how the order of instructions affects the result.	I know the term 'debug'. I know that code needs to be error free to work correctly.	I can identify what errors have been made in a recipe. I can debug an algorithm.
<u>Year 1/2</u>	Plants and the Environment (Science driver) <u>Understand what algorithms are</u> <u>Coding</u>	Core Knowledge - To understand what algorithms are; how they are implemented as programs on digital devices; programs execute by following precise and unambiguous instructions. - To create and debug simple programs.			
		Summer 1 Week 1 <i>Purple Mash</i> 1.7 <i>Lesson 1</i>	To understand what coding means in computing.	I know what instructions are. I know that computer programs work by following a set of instructions.	I can predict what might happen when instructions are followed. I can build one- and two-step instructions using printable code cards. I can create unambiguous instructions like those required by a computer.

	Plants and the Environment (Science driver) <u>Coding</u>	Summer 1 Week 2 <i>Purple Mash</i> <i>1.7</i> <i>Lesson 2</i>	To understand what object and action code blocks are.	I know what objects and actions are in coding. I can explain what a block of code is.	I can read through combined blocks of code. I can create a program using code blocks. I can use event, object and action code blocks.
	Plants and the Environment (Science driver) <u>Coding</u>	Summer 1 Week 3 <i>Purple Mash</i> <i>1.7</i> <i>Lesson 3</i>	To understand what an event is when coding.	I know what an event is in coding. I know why precise instructions are important.	I can use an event to control an object. I can create a program using code blocks. I can use event, object and action blocks. I can run my program and explain
<u>Year</u> <u>1/2</u>	Greater Manchester (Geography driver)	Summer 2 Week 1	To begin to understand how code executes when a program is run.	I know what an event is. I know how to identify when code executes.	I can create a simple program using code blocks. I can use event, objects and action code blocks.

	<u>Coding</u>	Purple Mash 1.7			I can notice when my code executes when my program is run when the green play button is clicked. I can begin to debug my own code.
	Greater Manchester (Geography driver) <u>Coding</u>	Summer 2 Week 2 Purple Mash 1.7	To design a scene for a program.	I know what backgrounds and objects are. I know that backgrounds and characters can be changed in Design Mode. I know how to use the scale property.	I can edit a scene by adding, deleting and moving objects. I can change the size of objects using the properties table. I can add characters. I can change backgrounds using a drop-down menu. I can save my work in my Purple Mash folder.
	Greater Manchester (Geography driver) <u>Coding</u>	Summer 2 Week 3 Purple Mash 1.7	To plan a computer program.	I know where to find and open my saved work. I know why planning and designing my program is important. I know key coding vocabulary; Code Action Background Block Button Character	I can predict what will happen when a code is run and the code executes. I can locate and open my saved work. I can create a design plan for my Free Code Scene program. I can use code to make the program I have designed. I can use key coding language when talking about my program. I can complete the coding vocabulary quiz for this unit of work.



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Year Group	Theme and Subject Driver	Week	Learning Objective	Knowledge	Skills
<u>Year 1/2</u>	Changes over time (History driver)	Core Knowledge - To use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. - To use technology purposefully to create, organise, store, manipulate and retrieve digital content.			
	<u>E-Safety</u>	Autumn 1 Week 1 <i>Purple Mash</i> <i>1.1</i> <i>Lesson 1</i>	To use technology safely and respectfully. To login safely with their own logins and understand why that is important. To create their own picture and add their name to it.	I know what it means to stay safe online. I understand the rules around E-Safety and know who I can speak to if I'm uncomfortable. I understand the importance of logging in safely.	I can log in to Purple Mash with my own username and password. I can create my own avatar. I can add my name to a picture of a dinosaur I have created. I can save my work in my digital folder.
	Changes over time (History driver)	Autumn 1 Week 2	To learn how to find saved work, messages and resources.	I know that my work is stored in an Online Work area on Purple Mash. I know I can search on Purple Mash.	I can find my work in my digital folder. I can search for Dinosaur resources using Purple Mash.

	<u>Create, Organise, Store and Retrieve Work</u>	Purple Mash 1.1 Lesson 2			
	Changes over time (History driver) <u>Create, Organise, Store and Retrieve Work</u>	Autumn 1 Week 3 Purple Mash 1.1 Lesson 3	To learn the common icons 'save, print, open, new'.	I know the terminology 'save, print, open and new'.	I can explore the Tools section on Purple Mash. I can use the icons; save, print, open and new.
<u>Year 1/2</u>	Significant Individuals in Space	Core Knowledge - To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. - To create and debug simple program. - To use logical reasoning to predict the behaviour of simple programs.			

	(History Driver) <u>Coding</u>	Autumn 2 Week 1 <i>Purple Mash</i> 2.1	To understand what an algorithm is.	I know that an algorithm is a set of instructions. I know why it is important to save my coding regularly.	I can describe the algorithm I have created. I can explain that for the computer to make something happen it needs to follow clear instructions. I can begin to use collision detection to make objects interact. I can begin to add sound when objects collide.
	Significant Individuals in Space (History Driver) <u>Coding</u>	Autumn 2 Week 2 <i>Purple Mash</i> 2.1	To explore a method to code interactivity between objects.	I know what a 'collision detection' event is. I know how to read code to make a prediction about what might happen. I know how to run a program.	I can use collision detection to make objects interact. I can add sound when objects collide. I can plan an algorithm that includes collision detection. I can read blocks of code and predict what will happen when it is run.
	Significant Individuals in Space (History Driver)	Autumn 2 Week 3	To use the timer-after command.	I know that algorithms follow a sequence. I know that objects have different properties. I understand how to use the timer-after command.	I can select the appropriate object to use. I can design an algorithm that follows a timed sequence. I can explain what the timer-after command does in my program.

	<u>Coding</u>	<i>Purple Mash</i> <i>2.1</i>			I can predict what will happen in a program that includes a timer-after command.
	Significant Individuals in Space (History Driver) <u>Coding</u>	Autumn 2 Week 4 <i>Purple Mash</i> <i>2.1</i>	To know what debugging means.	I know what debugging means. I know I need to test and debug a program repeatedly.	I can explain what debug (debugging) means. I can debug a simple program. I can use design document to start debugging a program. I can explain why it is important to save my work after each change to my program.
<u>Year 1/2</u>	Design, Structure and Materials (D&T driver) <u>Create an E-Book</u>	Core Knowledge • Use technology purposefully to create, organise, store, manipulate and retrieve digital content.			
		Spring 1 Week 1 <i>Purple Mash</i>	To introduce e-books and 2Create a Story.	I know the difference between a traditional book and an e-book.	I can create characters for my traditional tale E-book. I can use the different drawing tools to create a picture on the page. I can add text to a page and change the colour, font and size of the text. I can save my work.

		1.6 <i>Lesson 1</i>			
	Design, Structure and Materials (D&T driver) <u>Create an E-Book</u>	Spring 1 Week 2 <i>Purple Mash</i> 1.6 <i>Lesson 2</i>	To add animation to my work.	I know what animation is. I know how to find my existing work.	I can open work that I saved in my last lesson. I can add an animation to my picture. I can play the pages I have created. I can save my changes and overwrite the file.
	Design, Structure and Materials (D&T driver) and Turrets <u>Create an E-Book</u>	Spring 1 Week 3 <i>Purple Mash</i> 1.6 <i>Lesson 3</i>	To add sound to a story, including voice recording and music.	I know what a sound effect is. I know when it is appropriate to use a sound effect.	I can add a sound to the page. I can add my own voice recording to the page. I can create my own music and add it to my page.

<u>Year</u> <u>1/2</u>	Design, Structure and Materials (D&T driver) <u>Create Music</u> <u>Digitally</u>	Core Knowledge			
		Use technology purposefully to create, organise, store, manipulate and retrieve digital content.			
		Spring 2 Week 1 <i>Purple</i> <i>Mash</i> 2.7 <i>Lesson 1</i>	To be introduced to making music digitally. To explore, edit and combine Sounds.	I know that different sounds are used to create a tune. I understand what happens to the tune when sounds are moved.	I can use 2Sequence to create a tune. I can speed up and slow down tunes. I can move tunes.
		Spring 2 Week 2 <i>Purple</i> <i>Mash</i> 2.7 <i>Lesson 2</i>	To think about how music can be used to express feelings and create tunes which depict feelings.	I know how music can be used to express feelings. I know how to edit a tune I've already created to change it.	I can change the volume of the background sounds. I can create two tunes which depict two feelings. I can add sounds to a tune I've already created to change it.

	Design, Structure and Materials (D&T driver) <u>Create Music Digitally and retrieve digital content</u>	Spring 2 Week 3 <i>Purple Mash</i> <i>2.7</i> <i>Lesson 3</i>	To record your own sound.	I know the meaning of digital composition.	I can upload and use their own sound from a bank of sounds. I can create, upload and use my own recorded sound. I can create my own tune using some of the chosen sounds.
<u>Year 1/2</u>	Weather and the Seasons (Geography driver) <u>Pictograms</u>	Core knowledge - To use technology purposefully to create, organise, store, manipulate and retrieve digital content. - To recognise common uses of information technology beyond school.			
		Summer 1 Week 1 <i>Purple Mash</i> <i>1.3</i>	To understand that data can be represented in picture format.	I know what a pictogram is. I know what data is. I know why we might use a pictogram.	I can contribute to the collection of class data. I can use illustrations to create a simple pictogram.

		<i>Lesson 1</i>			
	Weather and the Seasons (Geography driver) <u>Pictograms</u>	Summer 1 Week 2 <i>Purple Mash</i> <i>1.3</i> <i>Lesson 2</i>	To contribute to a class pictogram.	I know what collate means.	I can contribute to a class pictogram. I can discuss what the pictogram shows.
	Weather and the Seasons (Geography driver) <u>Pictograms</u>	Summer 1 Week 3 <i>Purple Mash</i> <i>1.3</i> <i>Lesson 3</i>	To use a pictogram to record the results of an experiment.	I know how to represent data.	I can collect data about the weather. I can represent my results in a pictogram.

Year 1/2	Coastal Regions across the UK (Geography driver) <u>Digital Content</u>	Core Knowledge • To use technology purposefully to create, organise, store, manipulate and retrieve digital content.			
		Summer 2 Week 1 <i>Purple Mash</i> 2.8 <i>Lesson 1</i>	To explore how a story can be presented in different ways.	I know that digital content can be represented in many forms. I know what an e-book is. I know what a concept map is. I know what a quiz is. I know what a fact file is.	I can suggest different ways to present a story. I can explain why a concept map is useful.
	Coastal Regions across the UK (Geography driver) <u>Digital Quiz</u>	Summer 2 Week 2 <i>Purple Mash</i> 2.8	To make a quiz about a story or class Theme and Subject Driver.	I know what questions to include in my quiz. I know how to add questions.	I can make a quiz about our class story. I can select appropriate question types. I can talk about my work and make improvements.

		<i>Lesson 2</i>			
	Coastal Regions across the UK (Geography driver) <u>Fact-File</u>	Summer 2 Week 3 <i>Purple Mash</i> 2.8 <i>Lesson 3</i>	To make a fact file on a non-fiction Theme and Subject Driver.	I know that data can be structured in tables to make it useful.	I can make a fact file about <i>Grace Darling</i> or <i>Christopher Columbus</i> . I can add appropriate clipart. I can add an appropriate photo.

Cycle A- Year 3/4

Year Group	Theme and Subject Driver	Week	Learning Objective	Knowledge	Skills
<u>Year 3/4</u>	The Stone Age to the Iron Age (History driver) <u>E-Safety - Passwords</u>	Core Knowledge To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.			
		Autumn 1 Week 1 <i>Purple Mash</i> <i>3.2 Lesson 1</i>	To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away. To understand how a blog can be used to help us communicate with a wider audience.	I understand what makes a good password for use on the Internet. I understand the outcomes of not keeping passwords safe. I know the purpose of a blog.	I can contribute to a class blog with clear and appropriate messages. I can use my own password.
	The Stone Age to the Iron Age	Autumn 1 Week 2	To think about how to check that	I understand that some information held on websites may not be accurate or true.	I can access and assess a 'spoof' website. I can create my own 'spoof' webpage mock-up.

	(History driver) <u>E-Safety - Reliability Online</u>	<i>Purple Mash</i> <i>3.2 Lesson 2</i>	information on the internet is accurate.	I understand the need to think critically about results on a search page.	I can share my 'spoof' web page on a class display board.
	The Stone Age to the Iron Age (History driver) <u>E-Safety - Age Restrictions</u>	Autumn 1 Week 3 <i>Purple Mash</i> <i>3.2 Lesson 3</i>	To learn about the meaning of age restrictions symbols on digital media and devices.	I understand why PEGI restrictions exist. I know where to turn for help if I see inappropriate content or have inappropriate contact from others.	I can identify some physical and emotional effects of playing/watching inappropriate content/games. I can relate cyberbullying to bullying in the real-world. I have strategies for dealing with online bullying including screenshot and reporting.
<u>Year 3/4</u>	Forces and Magnets (Science driver) <u>Animation</u>	Core Knowledge To 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.			
		Autumn 2	To fit with Stone Age topic - Autumn term Cycle 1	I understand what animation frames are. I know how animations are made by hand.	I can put together a simple animation using paper to create a flick book.

		Week 1 <i>Purple Mash</i> 4.6 Lesson 1	To discuss what makes a good animated film or cartoon and what their favourites are.		I can make a simple animation.
	Forces and Magnets (Science driver) <u>Animation</u>	Autumn 2 Week 2 <i>Purple Mash</i> 4.6 Lesson 2	To learn about the Onion Skinning process of animation.	I know what the Onion Skin tool does in animation.	I can use the Onion Skin tool to create an animated image linked to my Theme and Subject Driver. I can add backgrounds and sounds to animations.
	Forces and Magnets (Science driver) <u>Animation</u>	Autumn 2 Week 3 <i>Purple Mash</i> 4.6 Lesson 3	To learn about 'stop motion' animation. To use a range of devices.	I know what 'stop motion' animation is and how it is created.	I can use ideas from existing 'stop motion' films to create my own animation on 2animate. I can use iPad apps to create stop motion animation. I can share my animation and comment on other's work.
<u>Year $\frac{3}{4}$</u>		Core Knowledge -			

	Roman Britain (History driver) <u>Simulations</u>	To 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.			
	Spring 1 Week 1 <i>Purple Mash</i> <i>3.7 Lesson 1</i>	To consider what simulations are.	I know that a computer simulation can represent real and imaginary situations.	I can give examples of simulations used for fun and for work. I can give suggestions of advantages and disadvantages of simulations.	
	Roman Britain (History driver) <u>Simulations</u>	Spring 1 Week 2 <i>Purple Mash</i> <i>3.7 Lesson 2</i>	To explore a simulation.	I know there are different solutions to a simulation.	I can explore a simulation. I can use a simulation to try out different options and to test predictions. I can begin to evaluate simulations by comparing them with real situations and considering their usefulness.

	Roman Britain (History driver) <u>Simulations</u>	Spring 1 Week 3 <i>Purple Mash</i> <i>3.7 Lesson 3</i>	To work through and evaluate a more complex simulation.	I know how to work as a team to analyse.	I can recognise patterns within simulations and make and test predictions. I can identify the relationships and rules on which the simulations are made. I can evaluate a simulation.
<u>Year 3</u>	Rocks, Volcanoes and Earthquakes (Geography driver)	Core Knowledge To understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.			
		Spring 2 Week 1 <i>Purple Mash</i> <i>3.6 Lesson 1</i>	To sort objects using just 'yes' or 'no' questions.	I understand how YES/NO questions are structured and answered.	I can use YES/NO questioning to play a simple game.

	Rocks, Volcanoes and Earthquakes (Geography driver)	Spring 2 Week 2 <i>Purple Mash</i> <i>3.6 Lesson 2</i>	To complete a branching database.	I understand what a branching database. I know the purpose of a branching database.	I can contribute to a class branching database about fruit. I can complete a branching database about vegetables.
	Rocks, Volcanoes and Earthquakes (Geography driver)	Spring 2 Week 3 <i>Purple Mash</i> <i>3.6 Lesson 3</i>	To create a branching database of the children's choice. (link to science - Rock type branching database).	I know how to use and debug my own branching database.	I can choose a suitable Theme and Subject Driver for a branching database. I can select and save appropriate images. I can create a branching database. I can debug my own branching database.
	Micro:Bit	Core Knowledge - To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. - To use sequence, selection, and repetition in programs; work with variables and various forms of input and output.			

<u>Year $\frac{3}{4}$</u>		To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.			
	Summer term	https://microbit.org/teach/lessons/digital-flashcards-unit-of-work/			
	Anglo Saxons and Vikings (History driver) <u>simulating physical systems</u>	Summer 1 Week 1	To fit with Viking D&T topic Summer term Cycle A To understand what a micro:bit is.	I know how to connect my micro:bit. I know what a .hex file is.	I can create a program in the online editor. I can connect my micro:bit to the computer to transfer a program.
	Anglo Saxons and Vikings (History driver) <u>simulating physical systems</u>	Summer 1 Week 2 <i>Lesson 1:Flashcard Algorithms</i>	To know and understand what algorithms are.	I know the roles of 'shower' and 'responder'. I know that an algorithm is a set of instructions.	I can write algorithms with clear instructions. I can test and debug algorithms.
	Anglo Saxons and Vikings (History driver) <u>simulating physical systems</u>	Summer 1 Week 3 <i>Lesson 2:Abstractio</i>	To write programs that create LED images.	I know the meaning of 'abstraction'. I know what an LED image is. I know how to write a program that creates an LED image.	I can use abstraction when planning LED images. I can write programs that create LED images. I can sequence programs.

		<i>n and programming</i>			
<u>Year 3</u>	Anglo Saxons and Vikings (History driver) <u>simulating physical systems</u>	Summer 2 Week 1 <i>Lesson 3:Patterns and delays</i>	To identify patterns and solutions to problems.	I know the purpose of 'delays'. I know the meaning of 'debug'.	I can identify the problem with my program. I can debug my program. I can use delays in algorithms and programs. I can use a delay to pause the time between LED images.
	Anglo Saxons and Vikings (History driver) <u>simulating physical systems</u>	Summer 2 Week 2 <i>Lesson 4:Predicting and experimentin g</i>	To use logical reasoning.	I know the meaning of 'logical reasoning'. I know the meaning of 'tinkering'.	I can tinker (experiment) to develop my understanding. I can create a digital number flashcard.
	Anglo Saxons and Vikings	Summer 2 Week 3	To follow an algorithm to create a digital number flashcard.	I know the meaning of the key vocabulary from this unit: Sequencing Logical reasoning	I can write and debug a program to meet a design criteria. I can evaluate against design criteria.

	(History driver) <u>simulating physical systems</u>	Lesson 5: Debugging and evaluating		Patterns Debugging Algorithm Abstraction	
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Cycle B- Year 3/4

Year Group	Theme and Subject Driver	Week	Learning Objective	Knowledge	Skills
<u>Year 3/4</u>	Healthy Eating (D&T driver) <u>Effective Searching</u>	Core Knowledge			
		To use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.			
		Autumn 1	To locate information on the search results page.	I know the meaning of 'search'. I know where to find 'search engines'. I know the types of information that can be found on a search engine.	I can structure search queries to locate specific information.
		Week 1			

		<i>Purple Mash</i> 4.7 <i>Lesson 1</i>			
	Healthy Eating (D&T driver) <u>Effective Searching</u>	Autumn 1 Week 2 <i>Purple Mash</i> 4.7 <i>Lesson 2</i>	To use search effectively to find out information.	I know how to use key words in a search engine. I know what it means to search effectively.	I can use search to answer a series of questions (Google). I can write search questions for a friend to solve (linked to my Theme and Subject Driver).
	Healthy Eating (D&T driver) <u>Effective Searching</u>	Autumn 1	To assess whether an information source is true and reliable.	I know the meaning of reliable. I know what clues to look for to find out if a website is reliable.	I can analyse the contents of a web page for clues about credibility of the information.

		Week 3 <i>Purple Mash</i> 4.7 <i>Lesson 3</i>			I can make the connection to SMART rules of Online Safety.
<u>Year 3/4</u>	Properties of Materials (Science driver) <u>Protecting themselves online</u>	Core Knowledge To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.			
		Autumn 2 Week 1	To understand how children can protect themselves from online identity theft.	I understand that information put online leaves a digital footprint or trail and that this can aid identity theft. I know that security symbols such as a padlock protect your identity online.	I can explain what a digital footprint is and how it relates to identity theft. I can give examples of things I wouldn't want to be in my digital footprint.

		Purple Mash 4.2 Lesson 1			
	Properties of Materials (Science driver) <u>Protecting themselves online</u>	Autumn 2 Week 2 Purple Mash 4.2 Lesson 2	To identify the risks and benefits of installing software including apps.	I know what malware is. I know what a computer virus is.	I can identify possible risks of installing free and paid for software. I can make the connection to SMART rules for Online Safety.
	Properties of Materials (Science driver)	Autumn 2	To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.	I know the difference between researching and using information and copying it. I know that you must cite sources that have been used.	I can identify appropriate behaviour when contributing to online projects. I can complete a plagiarism quiz.

	<u>Protecting themselves online</u>	Week 3 <i>Purple Mash</i> 4.2 <i>Lesson 3</i>			
	Properties of Materials (Science driver) <u>Protecting themselves online</u>	Autumn 2 Week 4 <i>Purple Mash</i> 4.2 <i>Lesson 4</i>	To identify the positive and negative influences of technology on health and the environment. To understand the importance of balancing game and screen time with other parts of their lives.	I know what to do to report on distressing or inappropriate things I come across online.	I can give reasons for limiting screen time. I can contribute to a real-time database about my screen-time. I can make the connection to SMART rules for Online Safety.
		Core Knowledge			

Year $\frac{3}{4}$	The Ancient Greeks (History driver) <u>Coding</u>	- To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. - To use sequence, selection, and repetition in programs; work with variables and various forms of input and output. - To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.			
		Spring 1 Week 1 <i>Purple Mash</i> 4.1 <i>Lesson 1</i>	To explain what coding is.	I know what coding is.	I can explain that coding is how computer programs are created. I can navigate around the 2Code interface, dragging and dropping code blocks and running code. I can use a background and objects to create a scene I can plan an algorithm for my scene and use 2Code to program it.
	The Ancient Greeks (History driver) <u>Coding</u>	Spring 1	To introduce IF statements to allow selection in a program.	I know the purpose of an 'if' statement. I know the significance of a flowchart to help plan and create a program using IF statements.	I can create an 'if' statement in my program. I can interpret a flowchart that depicts an IF statement.

		Week 2			I can use a timer and 'if' statement to respond to the actions of a character. I can change the characters actions.
	The Ancient Greeks (History driver) <u>Coding</u>	Spring 1 Week 3	To use coordinates in computer programming.	I know how an IF statement works.	I can make use of the X and Y properties of objects in my coding. I can create a program that includes an IF statement.
<u>Year3</u> <u>3/4</u>	The Ancient Greeks (History driver) <u>Coding</u>	Spring 2 Week 1 Purple Mash 4.1 Lesson 5	To create a program using the 'repeat' commands.	I know how to use the 'repeat until' command. I know the purpose of the Repeat until command. I know how an IF/ELSE statement works.	I can read code that includes repeat until and IF/ELSE and explain how if works. I can create program that includes an IF/ELSE statement. I can interpret a flowchart that depicts an IF/ELSE statement. I can show how a character repeats an action and explain how I caused it to do so. I can make a character respond to user keyboard input.

	The Ancient Greeks (History driver) <u>Coding</u>	Spring 2 Week 2 <i>Purple Mash</i> 4.1 <i>Lesson</i>	To introduce variables.	I know what a variable is in programming.	I can explain why variables need to be named. I can create a variable in a program. I can set/change the variable values appropriately to create a timer. I can use a number variable.
	The Ancient Greeks (History driver) <u>Coding</u>	Spring 2 Week 3	To make a playable game.	I know the key coding vocabulary: selection 'if' Statement 'if/else' statement variable co-ordinates timer repeat until inputs	I can use the coding skills I have been taught to create my own program. I can use: timer, repeat, 'if/else', variables.
		Core Knowledge			

Year 3/4	Rivers (Geography driver)	To Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs			
	<u>Use logical reasoning to explain how some algorithms work</u>	Summer 1 Week 1 <i>Purple Mash</i> 4.5 <i>Lesson 1</i>	To learn the structure of the language of Logo.	I know what common instructions are in Logo.	I can input simple instructions in Logo. I can follow simple Logo instructions to create shapes on paper. I can follow simple instructions to create shapes in Logo.
	Rivers (Geography driver) <u>Use logical reasoning to explain how some algorithms work</u>	Summer 1 Week 2	To use 2Logo to create letter shapes.	I understand the pu and pd commands.	I can write Logo instructions for a word of four letters. I can create Logo instructions to draw patterns of increasing complexity.

		Purple Mash 4.5 Lesson 2			
	Rivers (Geography driver) <u>Use logical reasoning to explain how some algorithms work</u>	Summer 1 Week 3 Purple Mash 4.5 Lesson 3 & 4	To use the Repeat function in Logo to create shapes. To use and build procedures in Logo.	I know when to use the Repeat function. I understand the procedure feature.	I can follow Logo code to predict the outcome. I can create shapes using the Repeat Function. I can find the most efficient way to draw shapes. I can create 'crystals' using Logo.
		Core Knowledge			

<u>Year</u> <u>3/4</u>	The Human Body (Science driver) <u>Emails</u>	- To understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration - To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour.			
	Summer 2 Week 1 <i>Purple Mash</i> <i>3.5</i> <i>Lesson 1 & 2 combined</i>	To think about the different methods of communication. To open and respond to an email.	I understand that there are a range of different ways to communicate. I understand how the ways we communicate have changed over time. I can use formatting tools when writing an email. I understand when to use the report button and the effects of my online behaviour.	I can open an email and respond to it. I can explain how to reply to an email. I can use the 'contacts' option to find a recipient for my email. I can develop my ability to touch type using both my right hand and left hand.	
	The Human Body (Science driver) <u>Emails</u>	Summer 2 Week 2	To learn how to use email safely.	I understand the benefits of emails. I understand the risks associated with emails. I understand how to keep myself and others safe when online (personal information). I know how my online behaviour might affect others.	I can write a list of rules on how to use email safely. I can identify a trusted email. I can identify if an email is sent by a trusted contact.

		<i>Purple Mash 3.5</i> <i>Lesson 3 and 4</i>			
	The Human Body (Science driver) <u>Emails</u>	Summer 2 Week 3 <i>Purple Mash 3.5</i> <i>Lesson 5 & 6</i>	To add an attachment to an email.	I know why the terms <i>CC</i> and <i>BCC</i> are used. I understand how email can be used as a collaborative tool.	I can read and respond to a series of email communications. I can attach files appropriately. I can use email communication to explore ideas. I can use <i>CC</i> or <i>BCC</i> appropriately.



Cycle A- Year 5/6

Year Group	Theme and Subject Driver	Week	Learning Objective	Knowledge	Skills
<u>Year 5/6</u>	The World of Technology	Autumn 1	<u>Core Knowledge</u> understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration		

	(Computing driver) <u>Networks</u>	Week 1 <i>Purple Mash</i> 6.6 <i>Lesson 1</i>	To discover what the children know about the internet.	I know the difference between the World Wide Web and the internet.	I can discuss what I use the internet for at home and in school. I can create a concept map of how I use the internet at home and at school. I can discuss how life would be different before the internet.
	The World of Technology (Computing driver) <u>Networks</u>	Autumn 1 Week 2 <i>Purple Mash</i> 6.6 <i>Lesson 2</i>	To find out what a LAN and a WAN Are. To find out how we access the internet in school.	I know how our school network works. I know the meaning of; router, network cables, modem.	I can discuss the different types of technology we have in the classroom. I can go on a Learning Walk around the school to identify the different devices we have. I can research what a network is using the BBC.

	The World of Technology (Computing driver) <u>Networks</u>	Autumn 1 Week 3 <i>Purple Mash</i> 6.6 <i>Lesson 3</i>	To research and find out about the age of the internet. To think about what the future might hold.	I know who Tim Berners-Lee is. I know how technology has significantly changed.	I can research Tim Berners-Lee. I can complete a profile about Tim Berners-Lee. I can consider some of the major changes in technology which have taken place.
<u>Year 5/6</u>	Earth and Space (Science driver) <u>Database</u>	Autumn 2	<u>Core Knowledge</u> To 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.		
		Week 1 <i>Purple Mash</i>	To learn how to search for information in a database	I understand the different ways to search a database. I know the meaning of 'field' and 'data'.	I can search a database in order to answer questions correctly. I can read data in a table. I can sort, group and arrange data. I can look at statistics and reports. I can interpret charts.

		5.4 <i>Lesson 1</i>			
	Earth and Space (Science driver) <u>Database</u>	Autumn 2 Week 2 <i>Purple Mash</i> 5.4 <i>Lesson 2</i>	To contribute to a class database.	I know what information we could record in the databases.	I can design an avatar for a class database. I can enter information into a class database. I can write three questions for my partner to solve.
	Earth and Space (Science driver) <u>Database</u>	Autumn 2 Week 3	To create a database around a chosen Theme and Subject Driver.	I know what a database field is. I understand how to word questions so that they can be effectively answered using a search.	I can create my own database. I can add records to my database. I can word questions appropriately.

		<i>Purple Mash</i> 5.4 <i>Lesson 4</i>			
	Earth and Space (Science driver) <u>Database</u>	Autumn 2 Week 4 <i>Purple Mash</i> 5.4 <i>Lesson 5</i>	To collect data for my database.	I know how to edit my questions if necessary. I know where to find my existing database.	I can add records to my database. I can view the statistics and reports on my data. I can create and interpret charts for my data.
		Spring	https://microbit.org/teach/lessons/getting-active-unit-overview/		

<u>Year</u> <u>5/6</u>	World War II (History driver) <u>Simulating physical</u> <u>systems</u>	Micro: Bit unit			
		Spring 1 Week 1 Lesson 1: <i>Describing with variables</i>	<u>Core Knowledge</u> - To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. - To use sequence, selection, and repetition in programs; work with variables and various forms of input and output. - To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.		
			To know and understand what variables are.	I know that variables need to have a set value.	I can create a character description. I can debug a character description. I can use variables to describe a character. I can write algorithms that use variables.
	World War II (History driver) <u>Simulating physical</u> <u>systems</u>	Spring 1 Week 2	To write algorithms that use variables.	I know how variables are used in programs. I know the meaning of 'selection'.	I can sort statements into an algorithm that I have used. I can identify the purpose of each part of a program. I can debug programs containing variables. I can transfer my file to a micro:bit.

		<i>Lesson 2:</i> <i>Using variables in programs</i>			
	World War II (History driver) <u>Simulating physical systems</u>	Spring 1 Week 3 <i>Lesson 1:</i> <i>Programming step counters</i>	To write an algorithm for a step-counter.	I know the purpose of a step-counter.	I can identify devices that people use to track physical activity. I can write an algorithm for a step-counter. I can program a micro:bit as a step-counter. I can suggest ways to improve my design.

<u>Year</u> <u>5/6</u>	World War II (History driver) <u>Simulating physical</u> <u>systems</u>	Spring 2 Week 1 <i>Lesson</i> <i>4:</i> <i>Random</i> <i>Activities</i>	To predict how variables will be used in programs.	I know how variables are used in programs. I know how to create an algorithm.	I can complete a times table test from a micro:bit. I can identify what variables were used in the program. I can create a random activity selector. I can write an algorithm to instruct how to decide what activity to complete.
	World War II (History driver) <u>Simulating physical</u> <u>systems</u>	Spring 2 Week 2 <i>Lesson</i> <i>5:</i> <i>Programming</i> <i>an</i>	To write programs that use random number variables (create an activity selector).	I know how to transfer an algorithm to a program.	I can recognise errors in code (debug). I can use my written algorithm to program a micro:bit to be an activity selector. I can create a variable.

		activity picker			
	World War II (History driver) <u>DSimulating physical systems</u>	Spring 2 Week 3 <i>Lesson 5: Progra mming an activity picker</i>	To evaluate my program.	I know the purpose of program evaluations. I know how to test my program.	I can complete a written evaluation of my work I can consider the following aspects: Appearance User ease Portability
<u>Year 5/6</u>	Mexico (Geography driver) <u>Online Behaviour</u>	Summe r 1 Week 1	<u>Core Knowledge</u> To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.		
			To identify the benefits and risks of location access/personal information on apps.	I know the benefits of apps having access to location. I know the risks of apps having access to location.	I can complete an Online Safety Game. I can identify the meaning of different symbols (8 risks and 8 safety).

		<i>Purple Mash 6.2</i> <i>Lesson 1</i>		I know the benefits of apps having personal information access. I know the risks of apps having personal information access. I know why someone might want my personal information.	I can create a game using online safety as a theme.
	Mexico (Geography driver) <u>Online Behaviour</u>	Summer 1 Week 2 <i>Purple Mash 6.2</i> <i>Lesson 2</i>	To have a clear idea of appropriate online behaviour.	I know how appropriate online behaviour can protect themselves from possible online dangers, bullying and inappropriate behaviour. I know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when I experience it or witness it as a bystander. I am beginning to understand how information online can give away details of those who share or modify it. I know the meaning of Digital Footprint. I know that the same standard of behaviour and honesty apply on and offline.	I can create a virtual image of myself as a user. I can use a database to answer questions about the candidates. I can explain why people might behave differently online, for example how anonymity and invisibility affect what people do.

	Mexico (Geography driver) <u>Online Behaviour</u>	Summer 1 Week 3 <i>Purple Mash 6.2</i> <i>Lesson 3</i>	To understand the importance of balancing game and screen time with other parts of their lives.	I know the need to balance between being active and digital activities.	I can identify the positive and negative influences of technology on health and the environment. I can give reasons for limiting screen time. I can talk about the positives and negative aspects of technology and balance these opposing views. I can record my screen time.
<u>Year 5/6</u>	Agriculture (Geography driver) <u>Concept Maps</u>	Summer 2 Week 1	<u>Core Knowledge</u> To 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.		
			To introduce the idea of concept mapping and the need for it to be represented visually.	I understand the need for visual representation when generating and discussing complex ideas	I can make connections between thoughts and ideas. I can see the importance of recording concept maps visually.

		<i>Purple Mash 5.7 Lesson 1</i>			
	Agriculture (Geography driver) <u>Concept Maps</u>	Summer 2 Week 2 <i>Purple Mash 5.7 Lesson 2</i>	To create a concept map.	I understand and use the correct vocabulary when creating a concept map: - Concept map - Stage - Nodes - Connections	I can create a basic concept map.
	Agriculture (Geography driver) <u>Concept Maps</u>	Summer 2	To create a collaborative concept map (linked to Theme and Subject Driver) and present this to an audience.	I know how to work collaboratively. I know how to present using Kentmere's Top Tips for Talking.	I can create a concept map collaboratively. I can use presentation mode to present my concept map to an audience.

		Week 3 <i>Purple Mash 5.7</i> <i>Lesson 4</i>			
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Cycle B- Year 5/6

Year Group	Theme and Subject Driver	Week	Learning Objective	Knowledge	Skills
<u>Year 5/6</u>	The Tudors (History driver) <u>Online Behaviour</u>	Autumn 1	<u>Core Knowledge</u> - To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. - To use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.		
		Week 1	To gain a greater understanding of the impact that sharing digital content can have.	I know who to tell if I am upset by something that happens online.	I can think critically about the information that I share online both about myself and others.

		Purple Mash 5.2 Lesson 1			I can use the SMART rules as a source of guidance when online.
	The Tudors (History driver) <u>Online Behaviour</u>	Autumn 1 Week 2 Purple Mash 5.2 Lesson 2	To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.	I know what makes a strong password. I understand how images can be edited using digital technology. I understand how image manipulation could be used to upset or harm others. I understand how difficult it is to remove something a user wishes they had not shared.	I can think critically about what I share online.
	The Tudors (History driver) <u>Online Behaviour</u>	Autumn 1 Week 3	To learn about to reference sources. To search the internet with a focus on reliability of information.	I understand the advantages and disadvantages of different forms of communication. I know when it is appropriate to use different forms of communication.	I can cite sources when researching. I can explain the importance of citing sources. I can select keywords and search techniques.

		Purple Mash 5.2 Lesson 3 & 4			
<u>Year</u> <u>5/6</u>	The Polar Regions (Geography driver)	Core Knowledge To 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			

	<u>Spreadsheets</u> Autumn 2 Week 1 <i>Purple Mash 5.3</i> <i>Crash course Lesson 1</i>	To learn about spreadsheets.	I know what rows and columns are. I know how to enter data into a cell. I understand the purpose of a simple formulae.	I can navigate around a spreadsheet. I can explain what rows and columns are. I can enter data including text, numbers and images into a cell. I can use the <i>Move Cell</i> and <i>Lock</i> tools. I can enter simple formulae into cells.
	The Polar Regions (Geography driver) <u>Spreadsheets</u> Autumn 2 Week 2 <i>Purple Mash 5.3</i>	To use a spreadsheet to model a real-life situation.	I know that calculations can be used to solve a real-life problem.	I can use a spreadsheet to work out the area and perimeter of rectangles.

		<i>Lesson 3</i>			
	The Polar Regions (Geography driver) <u>Spreadsheets</u>	Autumn 2 Week 3 <i>Purple Mash 5.3</i> <i>Lesson 1</i>	To use a spreadsheet to convert measurements.	I know how to apply formulas. I know how to create my own formula.	I can create a formula in a spreadsheet to convert m to cm. I can apply this to creating a spreadsheet that converts miles to km. I can apply this to creating a spreadsheet that converts km to miles.
<u>Year 5/6</u>	The Victorians The Victorians (History driver) <u>Design, write and debug programs</u> <u>Use sequence, selection and repetition</u>	Spring 1 Spring 1	<u>Core Knowledge</u> - To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. - To use sequence, selection, and repetition in programs; work with variables and various forms of input and output. - To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.		
			To review existing coding knowledge to simplify code when creating a playable game.	I know the meaning of previously taught coding vocabulary. I know the importance of simplifying code to make my programme more efficient.	I can complete a coding vocabulary quiz. I can use simplified code to make my programming more efficient. I can use variables in my code. I can create a simple playable game.

		Purple Mash 5.1 Week 1			
	The Victorians (History driver) <u>Design, write and debug programs</u> <u>Use sequence, selection and repetition</u>	Spring 1 Week 2 Purple Mash 5.1	To program and simulate a physical system.	I know what a simulation is.	I can plan an algorithm modelling the sequence of traffic lights. I can select the right images to reflect the simulation I am making. I can use my plan to program the simulation to work in 2Code.
	The Victorians (History driver) <u>Design, write and debug programs</u> <u>Use sequence, selection and repetition</u>	Spring 1 Week 3 Purple Mash 5.1	To use decomposition to make a plan of a real-life situation.	I know what decomposition is when coding. I know what abstraction is when coding. I understand the need to start coding at a basic level of abstraction to remove superfluous details from my program.	I can break down my tasks into smaller achievable steps. I can take a real-life situation, decompose it and think about the level of abstraction.

<u>Year</u> <u>5/6</u>	The Victorians (History driver) <u>Design, write and debug programs</u> <u>Use logical reasoning</u>	Spring 2 Week 1 <i>Purple Mash 5.1</i>	To use friction and functions in code.	I know what function is and how functions work in code. I know how to use friction in code.	I can create a program which represents a physical system. I can create and use functions in my code to make my program more efficient.
	The Victorians (History driver) <u>Design, write and debug programs</u> <u>Use logical reasoning</u>	Spring 2 Week 2 <i>Purple Mash 5.1</i>	To explore text variables.	I know what a 'variable' is in coding. I know the different variable types and how they are used differently. I know some ways that text variables can be used in coding.	I can explain what a variable is in programming. I can set/change the variable values appropriately. I can create and use a string variable in programming.
	The Victorians (History driver) <u>Design, write and debug programs</u> <u>Use logical reasoning</u>	Spring 2 Week 3	To create a string and use it in my program.	I know the meaning of previously taught coding vocabulary. I know some ways that text variables can be used in coding.	I can complete the coding quiz for this topic. I can create a string and use it in my program.

		Purple Mash 5.1		I know what concatenation is and how it works.	I can use strings to produce a range of outputs in my program.
<u>Year 5/6</u>	Ancient Egypt (History driver) <u>Use sequence, selection and repetition</u>	Summer 1 Week 1 Purple Mash 6.5	<u>Core Knowledge-</u> - To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. - To 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.		
			To plan a story-based text adventure.	I know that a text adventure uses text instead of graphics. I know that text adventures were played before graphic-based games.	I can describe what a text adventure is. I can map out a story-based text adventure. I can use 2Connect to record my ideas.
	Ancient Egypt (History driver) <u>Use sequence, selection and repetition</u>	Summer 1 Week 2 Purple Mash 6.5	To use plans to create a story-based text adventure.	I know how to transfer my plan to code. I know to use previously created programs to help me design my own.	I can create, test and debug. I can split my adventure-game design into sections.

	Ancient Egypt (History driver) <u>Use sequence, selection and repetition</u>	Summer 1 Week 3 <i>Purple Mash 6.5</i>			
<u>Year 5/6</u>	Structures and Forces (D&T driver) <u>Select, use and combine a variety of software</u>	Summer 2	<u>Core Knowledge-</u> To 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.		
		Week 1 <i>Purple Mash 5.5</i> <i>Lesson 1</i>	To begin designing my own game.	I know the elements that make a successful game.	I can review and analyse a computer game. I can describe some of the elements that make a successful game. I can begin the process of designing my own game.

	Structures and Forces (D&T driver) <u>Select, use and combine a variety of software</u>	Summer 2 Week 2 <i>Purple Mash 5.5</i> <i>Lesson 2</i>	To create the game environment.	I know the theme for my game. I know what I want the setting to look like. I know how to use my design plan effectively.	I can design the setting for my game so that it fits with the selected theme. I can upload images or use the drawing tools to create the walls, floor and roof.
	Structures and Forces (D&T driver) <u>Select, use and combine a variety of software</u>	Summer 2 Week 3 <i>Purple Mash 5.5</i> <i>Lesson 3 & 4</i>	To create the game quest.	I know how to make my game 'playable'.	I can design characters for my game. I can decide upon, and change, the animations and sounds that the characters make.