

Computing

		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
KS1 Cycle A	Topic	E-Safety	Animal Design	Instructions	PowerPoint	Turtle Logo	Pictures & Animation
	Enquiry Question	How do I stay safe when using a computer?	How can I represent art using a computer?	What is an algorithm?	How can I create a document?	How can I create an algorithm?	How can I organise and present information?
	Key Knowledge and skills	<ul style="list-style-type: none"> Pupils may have had access to computers/laptops at home which require a pin or password to be inputted in order to gain access. In EYFS, pupils will have used iPads/ tablets to listen and watch animated stories. 	<ul style="list-style-type: none"> Pupils may have used programs/apps and be able to recognise some of these logos, as well as know that apps can be used for a particular purpose. 	<ul style="list-style-type: none"> In EYFS, pupils will have used Bee-Bots when learning about directions. 	<ul style="list-style-type: none"> Pupils will know how to keep themselves safe when using technology. Pupils will be familiar with information in a document. 	<ul style="list-style-type: none"> Pupils have experience of solving problems and following instructions. Pupils will be able to predict what will happen when a program is started. 	<ul style="list-style-type: none"> Pupils will be able to navigate websites to find information. Pupils will have used programs to create a document.
	End Point	Once something is deleted from the internet it is permanent. A password is unique to a device, rather than a person.	Decisions on Paint cannot be edited or undone.	Algorithms are only used in technology.	Using a keyboard and mouse pad is easy. Text only appears as it is first typed and cannot be edited or changed.	Predicting is just guessing. Instructions can only be given in one step. Which direction is left and which is right.	A slideshow can be in any order.
KS1 Cycle B	Topic	E-Safety	Computer Art	Instructions	Microsoft Word	Search Engines	PowerPoint
	Enquiry Question	How do I keep my private information safe?	How can I represent art using a computer?	What is an algorithm?	How can I create a document?	How can I find the answer to my questions?	How can I organise and present information?
	Key Knowledge and skills	<ul style="list-style-type: none"> To explain that personal information is unique and should not be shared online. To know that they must tell a trusted adult immediately if they are concerned about their safety online. 	<ul style="list-style-type: none"> To learn how to add simple lines, shapes and colour using various tools. 	<ul style="list-style-type: none"> To know that instructions can be given to a computer to make things happen. To identify and follow commands to reach a destination. 	<ul style="list-style-type: none"> To learn how to word process ideas using a keyboard. To use the space bar, back space, enter, shift and arrow keys. To insert/delete a word using the mouse and arrow keys. To highlight text to change its format (B, <u>U</u>, <i>I</i>). 	<ul style="list-style-type: none"> To effectively retrieve relevant, purposeful digital content using a search engine. To find information on a website. To retrieve information including photos, text and sound. To organise and manipulate digital content. 	<ul style="list-style-type: none"> To experiment with text, pictures and animation. To print a web page to use as a resource. To capture images with a snipping tool. To use the copy and paste functions.
	End Point	To understand how to use technology safely by keeping personal information private and knowing who to speak to when cornered.	To create a space-themed piece of artwork (in the style of Picasso) using the Paint program.	To understand how to create, and follow, a simple set of instructions.	To create and edit a document using Microsoft Word.	To retrieve digital content using a search engine.	To create a simple PowerPoint presentation using words and images.
KS2 Cycle A	Topic	E-Safety	Animation	Shapes & Patterns	Publisher	Coding	E-card
	Enquiry Question	How do I keep my private information safe and what do I do if come across inappropriate content?	How can I create an animation using a computer?	How do I use algorithms to create shapes and patterns?	How can I use technology to advertise an invention?	How do I use code to create accurate outcomes based on specific selections?	How can I create my own electronic greetings card?
	Key Knowledge and skills	<ul style="list-style-type: none"> To explain how to keep information safe by creating a unique set of rules to follow. To explain and identify ways in which inappropriate content can be reported (trusted adult, online reporting/ blocking). To decide if information is useful and reliable. 	<ul style="list-style-type: none"> To learn about the history of animation. To create a short animation on a computer program using stick figures. To design a background on one program that can be pasted into another. 	<ul style="list-style-type: none"> To use logical reasoning to explain how algorithms can be planned and executed. To identify errors and learn how to debug an algorithm. To use program tools to increase the complexity of the design. 	<ul style="list-style-type: none"> To select, use and combine a variety of software to present information. To use technology safely, respectfully and responsibly. To build on their knowledge of file directory skills. To learn how to create, store and retrieve files and images. 	<ul style="list-style-type: none"> To create logical, achievable steps by using a range of coding structures. To make accurate predictions and explain why something will happen (linked to the code created). 	<ul style="list-style-type: none"> To use technology safely, respectfully and responsibly. To select, use and combine a variety of software to present data and information. To combine previously learnt knowledge and skills into one project.
	End Point	To understand how to keep myself (and others) safe when using technology.	To create a series of still frames that can be animated.	To create polygons using a range of variables.	To use the Publisher programme to produce an advertisement for a chocolate invention.	To design and debug an algorithm to draw repeated patterns.	To design an e-card using the computer program Pivot Animator.
KS2 Cycle B	Topic	E-Safety	Stop-Motion Animation	Shapes & Patterns	PowerPoint	Coding	Presenting Information
	Enquiry Question	How do I keep my private information safe and what do I do if come across inappropriate content?	How can the Water Cycle be shown using stop-motion animation?	How do I use an algorithm to create shapes and patterns?	How can I re-create a story using Microsoft PowerPoint and search engines?	How do I use code to create accurate outcomes based on specific selections?	How do I present credible and reliable information?
	Key Knowledge and skills	<ul style="list-style-type: none"> To explain how to keep information safe by creating a unique set of rules to follow. To explain and identify ways in which inappropriate content can be reported (trusted adult, online reporting/blocking). 	<ul style="list-style-type: none"> To explain and understand how animation has changed over time. To take, use and edit digital images. 	<ul style="list-style-type: none"> To use logical reasoning to explain how algorithms can be planned and executed. To identify errors and learn how to debug an algorithm. 	<ul style="list-style-type: none"> To accurately and correctly use the file directory within a computer by creating, saving and retrieving files. To find, select and input appropriate information, audio, and images, knowing how to manipulate them so that they create a sequenced story. 	<ul style="list-style-type: none"> To create logical, achievable steps by using a range of coding structures. To make accurate predictions and explain why something will happen (linked to the code created). 	<ul style="list-style-type: none"> To collect and evaluate information, recognising that the internet may not be accurate or reliable and may be used for bias, manipulation, or persuasion. To combine text, images and sounds to show awareness of the context and audience.
	End Point	To understand how to keep myself (and others) safe when using technology.	To create a stop-motion animation of the Water Cycle.	To create polygons using a range of variables.	To create a branching story based on the book, The Accidental Prime Minister.	To create a sequenced quiz-show game, selecting an appropriate Sprite based on the context of the game.	To create a presentation that moves from slide to slide and is aimed at a specific audience.
UK	Topic	E-Safety	Podcast	Maze	Sketchup	Animation	Radio Advert

Computing

	Enquiry Question	How do I keep myself safe online?	How do I create my own podcast?	How do I use algorithms to create a complex maze game?	How can I use technology to create a 3D vessel?	How can I create an animated story based on a scene from a book?	How can I advertise my maze game?
	Key Knowledge and skills	<ul style="list-style-type: none"> To know and explain that inappropriate behaviour/content can be reported to services such as CEOPs and/or Childline. To identify ways in which searches can be done safely, understanding that there are different search engines for different purposes. 	<ul style="list-style-type: none"> To know how to record sound, appropriately adjusting the volume, speed and pitch. To identify supporting media to accompany their podcast. To use the program Audacity to create, edit and publish a podcast. 	<ul style="list-style-type: none"> To write a program that has sequences, procedures and repetitions. To check and refine a series of instructions. To detect errors in a program and correct (debug) them. 	<ul style="list-style-type: none"> To follow a step-by-step tutorial, using a range of tools within Sketchup, to create a 3D vessel. To identify suitable materials for a vessel, suggesting appropriate improvements to a design. 	<ul style="list-style-type: none"> To develop a program that has specific variables and repetition included so that a moving scene can be created. To test and debug a program, using logical methods to identify the cause of bugs (trial and error). 	<ul style="list-style-type: none"> To use knowledge of pre and post-production techniques to create a short radio advert based on a maze game. To ensure edits (music, pitch, speed, and volume) are used in order enhance the game and appeal to a specific audience.
	End Point	To fully explain how to stay safe online, explaining specific ways in which inappropriate content can be reported.	To create a podcast using voice recordings, music and jingles.	To write and develop a sequenced program that successfully navigates a Sprite through a maze.	To create a 3D design for a vessel which can be used for a small refugee family.	To create a scene from the book Cogheart, using algorithms to include movement and specific commands.	To create a radio advert, using a range of skills and techniques to advertise a game.
	Topic	Webpages	Documentary	Maze	Microsoft Excel	Animation	News Report
UKS2 Cycle B	Enquiry Question	How do I identify safe and reliable information?	How can documentaries be used to share information?	How do I design a sequenced algorithm that includes repetition?	How can I use data within Microsoft Excel?	How can I create an animated story based on a scene from a book?	How can I present facts and events from the book Mortal Engines?
	Key Knowledge and skills	<ul style="list-style-type: none"> To explain ways in which passwords can be managed and what to do if a password is shared, lost, or stolen. To identify information (found on Internet) that is reliable and safe. To select and apply relevant information to a webpage of my own. 	<ul style="list-style-type: none"> To identify a key battle (Marathon/ Thermopylae) and select relevant information to be included in your documentary. To complete pre- and post-production tasks in order to create a cohesive, informative documentary. 	<ul style="list-style-type: none"> To write a program that has sequences, procedures, and repetitions. To check and refine a series of instructions. To detect errors in a program and correct (debug) them. 	<ul style="list-style-type: none"> To use a range of formulae for specific purposes (calculating the product, the total and the average). To create and edit a database, presenting selected information in appropriate ways. To identify and correct errors, patterns and sequences. 	<ul style="list-style-type: none"> To develop a program that has specific variables and repetition included so that a moving scene can be created. To test and debug a program, using logical methods to identify the cause of bugs (trial and error). 	<ul style="list-style-type: none"> To use knowledge of pre- and post-production techniques to create a short news report based on events from the book Mortal Engines. To check the validity and reliability of facts, events and information – explaining how and why specific strategies have been used.
	End Point	To create a webpage based on information about Ancient Greece, ensuring that information is found safely and is reliable.	To create a documentary, using a range of technology, which provides information about a key battle in Ancient Greece.	To write and develop a sequenced program that successfully navigates a Sprite through a maze.	To use a range of strategies to edit and present data within Microsoft Excel.	To create a scene from the book Mortal Engines, using algorithms to include movement and specific commands.	To create a webpage that presents data in a way that is accessible for an intended audience.

