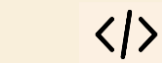
Computing Progression - Year 1 (2023-24)

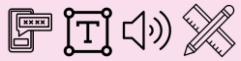
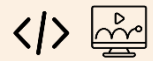
National Curriculum Objectives	***A)*** *understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions* ***B)*** *create and debug simple programs* ***C)*** *use logical reasoning to predict the behaviour of simple programs* ***D)*** *use technology purposefully to create, organise, store, manipulate and retrieve digital content* ***E)*** *recognise common uses of information technology beyond school* ***F)*** *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.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**All Creatures Great and Small**	**Fire! Fire!**	**Whatever the Weather**	**Flora Explorers!**	**No Place Like Home**	**Swingin' Sixties**
NC Objectives	***E, F***	***D, E***	***D, E***	***A, B***	***D, E***	***A, B***
Computing Unit	Keeping Safe & Exploring Technology 	Exploring Digital Sound 	Making Multimedia Stories 	Action Algorithms 	An Introduction to Digital Art 	Programming Direction 
Strand	Digital Literacy • Online Safety Information Technology	Digital Literacy • Multimedia ○ Sound ○ Art and Design ○ Text	Digital Literacy • Multimedia ○ Text ○ Art and Design ○ Animation ○ Sound	Computer Science • Computational thinking	Digital Literacy • Multimedia • Art and Design	Computer Science • Control and Programming
Prior Learning	This builds on work in EYFS where they explore a range of control equipment and have early conversations and stories about being safe when using electronic devices and going online.	This builds on exploring sound and music with instruments in EYFS.	This builds upon a rich background of enjoying stories in EYFS, where they have listened to, planned and come up with ideas for their own stories. **Exploring Digital Sound** - Y1 Spr1	This builds on sequencing and sorting activities in EYFS.	This builds on experimentation with drawing simple pictures in EYFS, both on paper and using digital devices. It supports the development of mouse skills.	This builds on sequencing and sorting activities and opportunities they have had to experiment with control devices in EYFS. **Action algorithms** – Y1 Sum1
Key Vocab	*Control* *Digital citizen* *Digital media* *Internet* *Media* *Media balance* *Media choices* *Network* *Online* *Private information* *Server* *World Wide Web*	*Digital* *Digital content* *Edit* *Evaluation* *Layer* *Online* *Save* *Timeline*	*Alter* *Animation* *Digital content* *Edit* *Format (text)* *Import* *Media* *Multimedia* *Save*	*Algorithm* *Command* *Condition* *Control* *Debug* *Decomposition* *Execute* *Logic* *Logical reasoning* *Program* *Repetition/Loop* *Selection* *Sequence*	*Alter* *Edit* *Evaluation* *Flood fill* *Multimedia* *Online* *Save* *Software*	*Algorithm* *Block* *Command* *Control* *Debug* *Decomposition* *Edit* *Execute* *Logic* *Logical reasoning* *Program* *Repetition/Loop* *Save* *Sequence*
Basic Skills	(Modelled as a class) • Login • Logout • Find a document (within Purple Mash) • Save	• Login • Logout • Find a document (within Purple Mash) • Save	• Login • Logout • Find a document (within Purple Mash) • Save • Type with 2 hands • Highlight Text • Change font style • Change font size • Change font to bold	[Non-computer-based unit] • Login • Logout • Find a document (within Purple Mash) • Type with 2 hands • Shift for Capital Letter • Shift for ! ?	• Login • Logout • Find a document (within Purple Mash) • Save • Type with 2 hands • Shift for Capital Letter • Shift for ! ? • Undo (using button)	• Login • Logout • Find a document (within Purple Mash) • Save • Type with 2 hands • Shift for Capital Letter • Shift for ! ? • Undo (using button)

			• Change font to italics • Underline text • Align text (left, centre) • Shift for Capital Letter • Shift for ! ? • Undo (using button)			
Programs Used	IWB in classroom	Peg and Cat Music Maker ABCYa Melody maker Electronic Drum Kit Keezy App (ipad) Purple Mash: • 2Explore • 2Beat • 2Create a Story	Purple Mash: • 2Type • 2Paint • 2Paint A Picture • 2Publish	IWB in classroom • Paper-based	Purple Mash: • 2Paint a Picture ABCYa.com bomomo.com klowdz.com	Bee-bots Purple Mash: • 2Go • 2Logo
Save Location	Journal	Purple Mash Within Software/Journal	Purple Mash	Journal	Purple Mash Within Software/Journal	Journal Purple Mash
Objectives	• Know when and why to take breaks from device time. • Consider the feelings of people around them, even when engaged in fun online activities. • Discover that the internet can be used to visit faraway places and learn new things. • Compare how staying safe online is similar to staying safe in the real world. • Explain rules for traveling safely on the internet. • To recognise common uses of technology in the home • To understand what the internet is • To recognise devices that can be connected to the internet • To understand how shops might use technology • To explain how technology can help people • To explore control technology devices • To explain how a control device works • To compare different types of control devices	• Explore making simple sounds • Explore a range of electronic music and sound devices and software. • To combine layers of sound to compose a simple tune with a beat. • Create images to accompany a soundtrack. • Import sound files to create multimedia pages. • To create a soundtrack that matches the mood of an image • Understand that sound can be recorded digitally • Understand that sound can be edited digitally	• Begin to use two hands for typing • Develop correct use of the keyboard, including the space bar, backspace, delete, shift (for capital letters – not caps lock) and enter keys. • Name parts of a computer • Add text to a text box • Make simple changes to selected text, e.g. colour, style and size. • Add a picture to a picture box • Use drawing tools effectively (e.g. make use of tools such as fill or shape tools). • Add animation effects to a page • Add animationLogo effects to individual objects on a page. • Be able to select and listen to a sound from a bank of pre-recorded sounds. • Select or record sounds to add to work. • Add navigation buttons to a presentation	• To know what an algorithm is • To write an algorithm • To use an algorithm • To improve an algorithm • To write an algorithm for a recipe • To understand and explain debugging • To be able to debug an algorithm • To write an algorithm for sharing • To spot patterns in algorithms • To write an algorithm for an action sequence • To understand that computers follow programming languages or 'code' • To write an algorithm for a dance routine • To give clear, unambiguous instructions	• Look at the differences between a computer art and paper based art • Use different tools to create a simple picture • Understand there are a variety of tools in a paint package, each for a different purpose. • Talk about your use of a graphics package and your choices of tools. • Compare two similar paint packages. • Use shape, line and colour to create an artistic style: ○ Impressionism. ○ Pointillism ○ Modern Art ○ Street Art • Use different tools in a digital paint package for good effect.	• Understand what an algorithm is • Give clear unambiguous instructions • Make predictions when giving instructions • Create algorithms for directions • Debug simple programs • Create algorithms for directions including turning • Begin to create algorithms with a written programming language

Computing Progression - Year 2 (2023-24)

National Curriculum Objectives	***A)*** *understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions* ***B)*** *create and debug simple programs* ***C)*** *use logical reasoning to predict the behaviour of simple programs* ***D)*** *use technology purposefully to create, organise, store, manipulate and retrieve digital content* ***E)*** *recognise common uses of information technology beyond school* ***F)*** *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.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**Where in the World?**	**Track to the Future!**	**Ní Hao**	**Up, Up and Away!**	**The Jolly Artist**	**Where the Land Meets the Sea**
	D, E, F	***D, F***	***A, B, C, D***	***D, E.***	***A, B, C***	***D, E, F***
	Keep Safe and Create 	Introduction to Animation 	Programming with Scratch Jr 	Writing in Different Styles 	Programming with Logo 	Finding and Presenting Information 

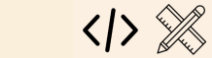
	Digital Literacy
	• Online Safety
	• Multimedia
	  ○ Text
	  ○ Sound
	  ○ Art and Design
		Digital Literacy
		• Multimedia
		  ○ Animation
		  ○ Art and Design
			Computer Science
			• Control and Programming
			Digital Literacy
			• Multimedia
			  ○ Animation
				Digital Literacy
				• Multimedia
				  ○ Text
				  ○ Art and Design
					Computer Science
					• Control and Programming
						Information Technology

	Keeping safe and exploring technology – Y1 **An introduction to digital art** Y1 **Making multimedia stories** – Y1	**Making multimedia stories** - Y1 **[An introduction to digital art** (digital drawing skills) - Y1]	**Action algorithms** – Y1 **Programming direction** – Y1 **Introduction to animation** – Y2 Aut2	**Making multimedia stories** - Y1 **[An introduction to digital art** (digital drawing skills) - Y1]	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 Spr1	**Keeping safe and exploring technology** – Y1
	Control *Digital citizen* *Digital media* *Internet* *Media* *Media balance* *Media choices* *Network* *Online* *Private information* *Server* *World Wide Web*	*Alter* *Animation* *Capture* *Export* *Edit* *Evaluate* *Frame* *Onion* *Save*	*Algorithm* *Block* *Broadcast* *Command* *Control* *Debug* *Edit* *Logical reasoning* *Program* *Save* *Sequence* *Sprite*	*Alter* *Copyright* *Digital content* *Edit* *Format (text)* *Import* *Media* *Save*	*Algorithm* *Command* *Control* *Debug* *Decomposition* *Edit* *Logical reasoning* *Procedure* *Program* *Repetition/Loop* *Save* *Sequence*	*Database* *Edit* *Evaluation* *Format (text)* *Information* *Internet* *Network* *Online* *Save* *Search* *Server* *World Wide Web*
	• Login • Logout • Find a document (within Purple Mash) • Save • Type with 2 hands • Change font style • Change font size • Change font to bold • Change font to italics • Underline text • Align text (left, centre) • Shift for Capital Letter	• Login • Logout • Find a document (within Purple Mash) • Save • Type with 2 hands • Shift for Capital Letter • Shift for **! ?** • Undo (using button)	• Find a document (within Scratch Jr) • Save • Undo (using button)	• Login • Logout • Find a document (within Purple Mash) • Save • Type with 2 hands • Highlight Text • Change font style • Change font size • Change font to bold • Change font to italics • Underline text • Align text (left, centre)	• Login • Logout • Find a document (within Purple Mash) • Save • Type with 2 hands • Shift for Capital Letter • Shift for **! ?** • Undo (using button)	• Login • Logout • Find a document (within Purple Mash) • Save • Print • Type with 2 hands • Highlight Text • Change font style • Change font size • Change font to bold • Change font to italics • Underline text

	• Shift for **! ?** • Undo (using button)			• Shift for Capital Letter • Shift for **! ?** • Copy text (Ctrl C) • Paste text (Ctrl V) • Undo (using button)		• Align text (left, centre) • Shift for Capital Letter • Shift for **! ?** • Copy text (Ctrl C) • Paste text (Ctrl V) • Undo (using button)
Programs Used	Google Chrome 2Do It Yourself • 2Survey	Purple Mash: • 2Type • 2Animate iMotion (iPads)	Scratch Jr (iPads)	Purple Mash: • 2Type • 2Publish	Purple Mash: • 2Type • 2Logo	Purple Mash: • 2Type • 2Count • 2Graph • 2Publish+ • 2Question • 2Investigate Google Chrome
Save Location	Purple Mash	Purple Mash (2Animate) Numbered iPads (iMotion)	Numbered iPads	Purple Mash	Purple Mash	Purple Mash
	• Understand the importance of being safe, responsible and respectful online. • Learn the "Pause & Think Online" song to remember basic digital citizenship concepts. • Import images into multimedia resources to share ideas to engage others. • Add and format text appropriately for multimedia resources. • Recognise the different kinds of feelings they can have when using technology. • Know what to do when they don't have a good feeling when using technology. • Create an interactive survey to gather other people's opinions. • Understand that being safe online is similar to staying safe in real life. • Learn to identify websites and apps that are "just right" and "not right" for them. • Know how to get help from an adult if they are unsure about a website. • Create an interactive educational game.	• To understand that animation is a collection of still images to make moving images. • To explain what a frame is • To create a simple 2D animation in 2Animate • To use a variety of drawing tools in 2Animate appropriately • Improve the quality of animations with onion skinning and the select tool • To successfully create longer and more detailed animations using backgrounds and sound effects in 2Animate • To compare 2D and stop motion animation. • To create a smooth stop motion animation in iMotion by moving objects in small steps • To make two or more figures interact in a stop motion animation in iMotion. • To plan and tell a simple story with stop motion animation in iMotion.	• Create and debug simple programs • Program the movement and appearance of an on-screen sprite • Use logical reasoning to predict the behaviour of simple programs • Program sprites to create a short animation • Program a number of sprites to move together • Investigate different ways of triggering movement with code • Program two sprites to interact with each other • Program scene changes in an animation • Design and program a maze game • Create your own sprites appropriate for your game • Use messaging to control sprites in a game	• Begin to use two hands for typing • To understand and use good posture when typing • To understand and use Caps Lock and Shift appropriately for typing capital letters. • To apply simple formatting to text • To import images into 2Publish • To use keyboard shortcuts to work more efficiently • Use speech bubbles, thought bubbles and text boxes in 2Publish • Combine images and text 2Publish • To design your own layout for a document in 2Publish	• To understand that Logo is a programming language • To understand that computers need precise, unambiguous commands • To give simple commands using Logo • To decompose a bigger problem into smaller parts • To know and use Logo pen up/down and colour commands • To use repeat commands in Logo to draw regular shapes • Use logical reasoning to predict what a simple program will do • To create and understand a Logo procedure • To combine procedures together	• Use and explore appropriate buttons, arrows, menus and hyperlinks to navigate a website. • Understand a website has a unique address and the need for precision when typing it. • Know what to do and who to tell if they see something inappropriate on a website. • Using keywords to safety search a specific resource for information. • Locate specific websites by typing a website address into the address bar. • Begin to evaluate web sites by giving opinions about preferred or most useful sites. • Use simple graphing software to produce pictograms and other basic tables or graphs. • Use graphing software to enter data and change a graph type, e.g. pictogram to bar chart. • Interpret and draw conclusions from graphs, discuss information contained and answer simple questions. • Sort and classify a group of items by asking simple yes / no questions. • Develop classification skills by carrying out sorting activities • Use a database program, where appropriate, to sort and identify items. • Use basic search tools in a prepared database to answer simple questions, e.g., how many children have brown hair?

Computing Progression - Year 3 (2023-24)

National Curriculum Objectives	***A)*** *design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts* ***B)*** *use sequence, selection, and repetition in programs; work with variables and various forms of input and output* ***C)*** *use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs* ***D)*** *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* ***E)*** *use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content* ***F)*** *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* ***G)*** *use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**Digging up the past**	**Polar Explorers**	**Root and Grow**	**Scuttle and Spikes**	**Rotten Romans**	**Highland & Islands**
NC Objectives	***E, F, G***	***A, B, C***	***F***	***A, B, C***	***D, F***	***A, B, C***
Computing Unit	Digital Literacy and Online Safety (Y3) 	Starting from Scratch 	Digital Imagery: Patterns in Nature 	Lego WeDo: Mechanisms and Machines 	Databases 	Getting Started with Kodu 
Strand	Digital Literacy ○ Online Safety	Computer Science • Control and Programming Digital Literacy • Multimedia • Animation	Digital Literacy • Multimedia ○ Art and Design ○ Video	Computer Science • Control and Programming Link to Work in DT this term.	Information Technology	Computer Science • Control and Programming Digital Literacy • Multimedia ○ Art and Design
Prior Learning	**Keeping safe and exploring technology** – Y1 **Keep Safe and Create** – Y2	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2	**An introduction to digital art** – Y1	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2 **Starting from Scratch** – Y3 Aut2	**Finding and Presenting Information** – Y2	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2 **Starting from Scratch** – Y3 Aut2
Key Vocab	*Attention* *Community* *Concentration* *Credit* *Digital footprint* *Distraction* *Internet* *Online* *Permanent* *Private* *Private information* *Respect*	*Abstraction* *Algorithm* *Block* *Blocks Palette – (in Scratch)* *Command* *Coordinate (noun)* *Costume* *Debug* *Decomposition* *Execute* *Input* *Logical reasoning* *Output* *Program* *Repetition/Loop* *Script* *Selection* *Sequence* *Sprite* *Stage – (in Scratch)*	*Alter* *Attribute* *Copyright* *Digital content* *Edit* *Evaluation* *Export* *Hue* *Intellectual property* *Import* *Layer* *Photo retouching* *Saturation* *Save* *Search* *Software* *Web browser*	*Abstraction* *Algorithm* *Block* *Blocks Palette* *Command* *Debug* *Decomposition* *Execute* *Input* *Logical reasoning* *Output* *Program* *Repetition/Loop* *Sensor* *Sequence*	*Cloud storage* *Collaboration* *Data* *Database* *Edit* *Evaluation* *Export* *Field* *Import* *Rank* *Record* *Save* *Search* *Sort*	*Algorithm* *Block* *Command* *Debug* *Decomposition* *Execute* *Input* *Logical reasoning* *Output* *Program* *Selection* *Sequence* *Sprite* *Variables*
Basic Skills	• Login • Logout • Finding a document on 'Shared'	• Login • Logout • Finding a document within Scratch	• Login • Logout • Finding a document on 'Shared'	Robot based unit	• Login • Logout • Finding a document on 'Shared'	• Login • Logout • Finding a document in Kodu • File Save As

	• File Save As • File Print	• Type using 2 hands • Highlight All - **Ctrl A** • Shift Capital Letter • Undo – **Ctrl Z**	• File Save As • File Print • Highlight All - **Ctrl A** • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** Undo – **Ctrl Z**		• File Save As • File Print • Type using 2 hands • Highlight Text • Highlight All - **Ctrl A** • Change font style • Change font size • Change font to bold - **Ctrl B** • Change font to italics - **Ctrl I** • Underline text - **Ctrl U** • Align text (left, centre, right, justified) • Shift Capital Letter • Shift for Special Characters (?!"£&*@:) • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**	• Type using 2 hands • Highlight All - **Ctrl A** • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**
Programs Used	Google Chrome IWB in class	Scratch (in Web Browser)	Purple Mash: • 2Paint a Picture Pixlr.com Windows Video Editor	Lego WeDo	Microsoft Forms/Google Sheets Purple Mash: • 2Investigate	Kodu (downloaded)
Save Location	Journal	Within Scratch (sign in)	Purple Mash Within Pixlr.com (sign in) School Shared Drive	Within Lego Wedo Journal	Microsoft Forms/Google Sheets Purple Mash	Within Kodu
Objectives	• Recognise the ways in which digital devices can be distracting. • Identify how they feel when others are distracted by their devices. • Identify ideal device-free moments for themselves and others. • Recognise the kind of information that is private. • Understand that they should never give out private information online. • Know that the information they share online leaves a digital footprint or "trail" • Explore what information is OK to be shared online • Compare and contrast how they are connected to different people and places, in person and on the internet • Demonstrate an understanding of how people can connect on the internet • Understand what online meanness can look like and how it can make people feel	• To understand and explain key vocabulary linked to programming. • To become familiar with the Scratch programming environment (blocks, sprites, stage, canvas, controls). • To understand and use coordinates in programming. • To accurately read, predict and explain visual code. • Suggest changes to existing code. • Use logic to debug existing code and explain your changes. • Modify existing code for a particular purpose and explain your changes. • To sequence a series of commands accurately and in the most efficient way. • To understand and explain different types of loops in code, the differences between them and when you would use them. • To add and use different types of loops in code to achieve a desired outcome.	• Acquire, store and retrieve images from devices or the Internet for a purpose. • Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images (see and use AUP) • Create images using a range of techniques to develop a particular style. • Compare and contrast different art software or web-based tools. • Use a lasso tool to select specific areas of an image. • Use effects in photo-manipulation software to edit, change or enhance an image. • Independently download and save images or video onto a computer. • Independently upload images or video for use in editing software. • Be able to resize various elements in a graphics or paint package.	• To understand and use mechanical systems (motors, gearing systems, cams, pulley and belts and levers) • To explain how motors and gears create motion • To create simple algorithms to control mechanisms • To explain how different gearing systems and cams create motion • To understand and explain how sensors can be used to control mechanisms • To design, build and program models that use sensors to control a mechanism • To combine several mechanisms in a single machine build • To explain how mechanisms combine to make a machine work • To understand and use loops, randomisation and sensors in an algorithm • To use a range of inputs to start an algorithm that controls a machine	• To understand and explain what a database is • To identify records and fields of a database. • To identify advantages and disadvantages of using databases. • To select appropriate data to add to a database • To create a collaborative class database • To search and sort a database • To insert records into a database. • To insert information into fields of a database. • To look through a database to find information. Think, discuss and try different searching methods. • To make a chart from information in a database. • To be able to read and compare information on a chart. • To interpret a chart and report findings. • To compare different methods of collecting data	• Create and refine sequences of commands to make a character move • Use logical reasoning to debug algorithm • Plan and design a 3D game environment • Design programs with sequence and selection that accomplish specific goals • Evaluate a program that they have created and say what they liked and what could be done to improve it • Make improvements to a game based on feedback

	• Identify ways to respond to mean words online, using S-T-O-P • Explain how giving credit is a sign of respect for people's work • Learn how to give credit in their schoolwork for content they use from the internet	• To plan and create an animation using code. • To sequence a series of events in your plan. • To identify key coding blocks needed for your animation. • To create an animation using code. • To critically evaluate the work of a classmate and offer constructive feedback.	• Use effects in photo-manipulation software to edit, change or enhance an image. • Combine a number of images using layering. • Import music, stills or video into video editing software for a specific project. • Arrange, trim and cut clips to create a short film that conveys meaning. • Add simple titles, credits and special effects.		• To understand and explain the difference between open and closed questioning • To create and use an online questionnaire for data collection • To accurately analyse and interpret database information • To make charts from the database information. • To present information from a database.	

Computing Progression - Year 4 (2023-24)

National Curriculum Objectives	***A)*** *design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts* ***B)*** *use sequence, selection, and repetition in programs; work with variables and various forms of input and output* ***C)*** *use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs* ***D)*** *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* ***E)*** *use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content* ***F)*** *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* ***G)*** *use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**Pyramids & Power**	**Escape to Narnia**	**Savage Saxons**	**Rhythm of Rain**	**Vicious Vikings**	**Jungle Fever**
NC Objectives	***E, F, G***	***D, E, F, G***	***A, B, C***	***D, F, G***	***A, B, C***	***F***
Computing Unit	Digital Literacy and Online Safety (Y4) 	Searching the Web 	Starting from Scratch 	Communication and Collaboration 	Kodu Sports 	3D Design 
Strand	Digital Literacy • Online Safety	Information Technology	Computer Science • Control and Programming Digital Literacy • Multimedia ○ Art and Design	Information Technology Digital Literacy • Online Safety • Multimedia ○ Text ○ Art and Design	Computer Science • Control and Programming Digital Literacy • Multimedia Art and Design	Digital Literacy • Multimedia • Art and Design
Prior Learning	**Keeping safe and exploring technology** Y1 **Keep Safe and Create** Y2 **Digital Literacy and Online Safety** – Y3	**Finding and Presenting Information** – Y2	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2 **Animation with Scratch** – Y3 **Getting Started with Kodu** – Y3	**Keeping safe and exploring technology** – Y1 **Keep Safe and Create** – Y2	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2 **Animation with Scratch** – Y3 **Getting Started with Kodu** – Y3 **Starting from Scratch** – Y4 Spr1	**An introduction to digital art** – Y1 **Digital Imagery: Patterns in Nature** – Y3 **Getting Started with Kodu** – Y3
Key Vocab	*Advertising* *Alter* *Assumption* *Community* *Digital citizen* *Empathy* *Identity* *Interpret* *Norm* *Password* *Persuade* *Photo retouching* *Phrase* *Pledge* *Responsibility* *Selfie* *Symbol* *Username*	*Algorithm* *Attribute* *Cookies* *Copyright* *Digital content* *Evaluation* *Inference* *Internet* *Internet Service Provider (ISP)* *License* *Online* *PageRank* *Search* *Server* *Services* *Web browser* *World Wide Web*	*Abstraction* *Algorithm* *Block* *Blocks Palette* *Command* *Coordinate (noun)* *Costume* *Debug* *Decomposition* *Execute* *Input* *Logical reasoning* *Output* *Program – (noun)* *Program - (verb)* *Repetition/Loop* *Script* *Selection* *Sequence* *Sprite*	*Alter* *Annotate* *Attachment* *BCC - 'Blind Carbon Copy'.* *CC - 'Carbon Copy'.* *Cloud storage* *Collaboration* *Communication* *Edit* *Email* *Internet* *Internet Service Provider (ISP)* *Online* *Packet* *Password* *Personal information* *Phishing* *Private information* *Save* *Server*	*Algorithm* *Block* *Command* *Debug* *Decomposition* *Execute* *Input* *Logical reasoning* *Output* *Program* *Selection* *Sequence* *Sprite* *Variables*	*3D* *3D modelling* *3D printing* *Alter* *CAD* *Digital content* *Edit* *Export* *Import* *Save* *Simulation* *Software*

			Stage *Variables*	*Services* *Social interaction* *Spam* *Symbol* *Username* *Web browser* *World Wide Web*		
Basic Skills	• Login • Logout • Highlight All - **Ctrl A** • Change font to bold - **Ctrl B** • Change font to italics - **Ctrl I** • Underline text - **Ctrl U** • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**	• Login • Logout • Finding a document on 'Shared' • File Save As • File Print • Type using 2 hands • Highlight Text • Highlight All - **Ctrl A** • Change font style • Change font size • Change font to bold - **Ctrl B** • Change font to italics - **Ctrl I** • Underline text - **Ctrl U** • Align text (left, centre, right, justified) • Shift Capital Letter • Shift for Special Characters (?!"£&*@:) • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**	• Login • Logout • Finding a project within Scratch • Save within Scratch	• Login • Logout • File Print • Type using 2 hands • Highlight Text • Highlight All - **Ctrl A** • Change font style • Change font size • Change font to bold - **Ctrl B** • Change font to italics - **Ctrl I** • Underline text - **Ctrl U** • Align text (left, centre, right, justified) • Shift Capital Letter • Shift for Special Characters (?!"£&*@:) • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**	• Login • Logout • Finding a project within Kodu • Save within Kodu • Highlight All - **Ctrl A**	• Login • Logout • Finding a project within SketchUp • Save within SketchUp • Highlight All - **Ctrl A**
Programs Used	Google Chrome IWB in class	Web Browsers (Chrome)	• Scratch (web-based)	• Google	Kodu (downloaded)	• SketchUp
Save Location	Journal	Journal	Within Scratch (login)	Google Drive	Within Kodu	Within SketchUp
Objectives	• Examine both in-person and online responsibilities. • Describe the Rings of Responsibility as a way to think about how our behaviour affects ourselves and others. • Identify examples of online responsibilities to others. • Define the term "password" and describe a password's purpose. • Understand why a strong password is important. • Practice creating a memorable and strong password. • Consider how posting selfies or other images will lead others to make assumptions about them.	• To explain in simple terms what a search engine is • To understand how search results are selected and ranked, including that search engines use 'web crawler programs'. • To stay safe when going online and to know what to do if they have a problem • To use a variety of tools when searching for images • To understand and be respectful of copyright when searching for images • To make judgements about the reliability and validity of digital content • To research and validate information on websites	• To understand and explain key vocabulary linked to programming. • To become familiar with the Scratch programming environment (blocks, sprites, stage, canvas, controls). • To understand and use coordinates in programming. • To accurately read, predict and explain visual code. • Suggest changes to existing code. • Use logic to debug existing code and explain your changes. • Modify existing code for a particular purpose and explain your changes.	• Log on to an email account, open emails, create and send appropriate replies. • Recognise the effect that content in their communications may have on others. • Understand the need to keep personal information and passwords private in order to protect themselves when communicating online. • Know and apply the school's rules for keeping safe online and be able to apply these beyond school. • Attach different files to emails, e.g. text document, sound file or image. • Open and save attachments to an appropriate place.	• Plan and design a 3D game environment • Create and refine sequences of commands to accomplish specific goals • Use logical reasoning to predict outcomes and debug algorithms • Use variables to create game systems • Evaluate a program that they have created and say what they liked and what could be done to improve it.	• Navigate a 3D environment successfully • Create simple 3D models • Create detailed 3D models of furniture • Use the referencing tools in Sketchup to help keep elements in proportion • Use a range of simple drawing tools in Sketchup • Apply colour and materials to a 3D model • Create a detailed 3D building model • Create and use components in a Sketchup model • Apply realistic colour and materials to a 3D model

	• Reflect on the most important parts of their unique identity. • Identify ways they can post online to best reflect who they are. • Define what a community is, both in person and online. • Explain how having norms helps people in a community achieve their goals. • Create and pledge to adhere to shared norms for being in an online community. • Understand that it's important to think about the words we use, because everyone interprets things differently. • Identify ways to respond to mean words online, using S-T-O-P. • Decide what kinds of statements are OK to say online and which are not. • Recognise that photos and videos can be altered digitally. • Identify different reasons why someone might alter a photo or video. • Analyse altered photos and videos to try to determine why.	• Make and explain judgements about the design of digital content • To compare and contrast different types of maps • To use a variety of tools in digital maps to find and explore places • To explore other uses of mapping software • To use online maps to create challenge games	• To sequence a series of commands accurately and in the most efficient way. • To understand and explain different types of loops in code, the differences between them and when you would use them. • To add and use different types of loops in code to achieve a desired outcome. • To plan and create an animation using code. • To sequence a series of events in your plan. • To identify key coding blocks needed for your animation. • To create an animation using code. • To critically evaluate the work of a classmate and offer constructive feedback.	• To understand and explain cloud storage • To upload a document to cloud storage • To log into, create and share a collaborative document or application • Understand the need for certain rules of conduct, particularly when using live forums of communication, e.g. chats, forums, live docs • To work effectively with others on a collaborative document or application. • To understand and demonstrate respect for privacy of people's data. • Understand how to communicate safely using video chat tools. • Respect the ideas and communications of others they encounter online.		• Design buildings that fit a particular architectural theme or period in history • Use more advanced building techniques such as referencing, follow me, components and grouping

Computing Progression - Year 5 (2023-24)

National Curriculum Objectives	***A)*** *design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts* ***B)*** *use sequence, selection, and repetition in programs; work with variables and various forms of input and output* ***C)*** *use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs* ***D)*** *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* ***E)*** *use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content* ***F)*** *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* ***G)*** *use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**Ancient Greeks**	**To Infinity and Beyond**	**Lurking Dangers**	**Sailing Along the Tyne**	**California Dreamin'**	**Fair Play, Foul Play**
NC Objectives	***E, F, G***	***A, B, C***	***A, B, C, F***	***F***	***D, E***	***D, F, G***
Computing Unit	Digital Literacy and Online Safety Y5 	Building Retro Games – Snake/Pong 	LEGO Robotics 	Manipulating Sound 	What is a computer? 	Building Collaborative Websites 
Strand	Digital Literacy • Online Safety	Computer Science • Control and Programming	Computer Science • Control and Programming	Digital Literacy • Multimedia ○ Sound	Information technology	Digital Literacy • Multimedia ○ Text ○ Art and Design
Prior Learning	**Digital Literacy and Online Safety** – Y3 **Digital Literacy and Online Safety** – Y4	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2 **Animation with Scratch** – Y3 **Getting Started with Kodu** – Y3 **Programming Scratch Maze Games** – Y4 **Kodu Sports** – Y4	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2 **Animation with Scratch** – Y3 **Getting Started with Kodu** – Y3 **Lego: WeDo** – Y3 **Programming Scratch Maze Games** – Y4 **Kodu Sports** – Y4	**Exploring Digital Sound** – Y1 *[**Digital Imagery: Patterns in Nature** – Y3]*	**Finding and Presenting Information** – Y2 **Searching the Web** – Y4	**Finding and Presenting Information** – Y2 **Writing in Different Styles** – Y2 **Searching the Web** – Y4 **Communication and Collaboration** – Y4
Key Vocab	*Attribute* *Copyright* *Cyberbullying* *Digital citizen* *Digital footprint* *Digital media* *Inference* *intellectual property* *Hardwired* *Griefing* *License* *Media* *Media balance* *Media choices* *Online video game* *Personal information* *Plagiarism* *Private information* *Register (online)*	*Abstraction* *Algorithm* *Block* *Blocks Palette* *Command* *Coordinate (noun)* *Costume* *Debug* *Decomposition* *Execute* *Input* *Logical reasoning* *Output* *Program* *Repetition/Loop* *Script* *Selection* *Sequence* *Sprite*	*Abstraction* *Algorithm* *Block* *Blocks Palette* *Command* *Control* *Debug* *Decomposition* *Execute* *Function* *Hardware* *Input* *Logic* *Logical reasoning* *Output* *Patterns* *Program – (noun)* *Program - (verb)* *Repetition/Loop*	*Alter* *Copyright* *Digital* *Digital content* *Digital media* *Edit* *Evaluation* *Export* *Import* *Layer* *Multimedia* *Narrate* *Online* *Save* *Sequence* *Software* *Timeline*	*Binary* *Computer networks* *CPU - (Central Processing Unit)* *Data* *Digital content* *Digital media* *Firewall* *GPU - (Graphics Processing Unit)* *Hard drive* *Hardware* *Input* *Internet* *Internet Service Provider (ISP)* *LAN - "Local Area Network"* *Network* *Operating system* *Output* *Packet* *Processor*	*Alter* *Annotate* *Attribute* *Copyright* *Digital content* *Digital media* *Edit* *Evaluation* *Online* *Password* *Plagiarism* *Save* *Search* *Software* *Username* *Web browser* *World Wide Web*

	Responsibility *Social interaction* *Upstander*	*Stage* *Variable*	*Robot* *Selection* *Sequence*		*RAM (Random Access Memory).* *Redundancy* *ROM 'Read Only Memory'* *Router* *Save* *Server* *Services* *Software* *Switch* *WAN - 'wide area network'* *Wireless Access Point (WAP)* *Wireless Network* *Web browser* *Wired Network* *World Wide Web*	
Basic Skills	• Type using 2 hands • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**	• Login • Logout • Finding a document on 'Shared' • File Save As • File Print	• Robot based unit	• Login • Logout • File Save As • Type using 2 hands • Change font style • Change font size • Change font to bold - **Ctrl B** • Change font to italics - **Ctrl I** • Underline text - **Ctrl U** • Align text (left, centre, right, justified) • Shift Capital Letter • Shift for Special Characters (?!"£&*@:)	• Login • Logout • Finding a document on 'Shared' • File Save As • File Print	• Login • Logout • Finding a document on 'Shared' • File Save As • File Print • Type using 2 hands • Highlight Text • Highlight All - **Ctrl A** • Change font style • Change font size • Change font to bold - **Ctrl B** • Change font to italics - **Ctrl I** • Underline text - **Ctrl U** • Align text (left, centre, right, justified) • Shift Capital Letter • Shift for Special Characters (?!"£&*@:) • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**
Programs Used	Google Chrome IWB in class	Scratch (web-based)	LEGO EV3 • LEGO education app (iPad)	Audacity Various online programs • Isle of Tune (iPads)	Google Chrome IWB in class	• Google Online Programs
Save Location	Journal	Within Scratch (login)	Within Software	Journal	Journal	Google Drive
Objectives	• Learn the "What? When? How Much?" framework for describing their media choices. • Use this framework and their emotional responses to evaluate how healthy different types of media choices are. • Begin to develop their own definition of a healthy media balance.	• Analyse an existing video game and explain how it works • Understand and use sequence, selection, and repetition in programs; • Use X and Y coordinates effectively to control a sprite's movement • Understand and use variables to control functions in a game • Plan ways to add to and improve a program	• Understand and explain what a robot is and how they are used • Design and write algorithms to control a robot • Understand and change variables to change the movements of a robot • Write algorithms to control the movements of a robot • Debug algorithms to solve problems	• Use a variety of music software to experiment with capturing, repeating and sequencing sound patterns. • Understand the difference between digital and analogue sound • Experimenting with sound online • Talk about software which allows the creation and manipulation of sound and music.	• To recognise computers in machines around us • To understand and explain input and output devices for computers • To recognise that a range of digital devices can be considered a computer. • To explain the differences between types of common computers.	• Log-in and manage an online account and password safely • To work effectively with others on a collaborative document or application • Use appropriate strategies for finding, evaluating, and verifying information, • Distinguish between fact and opinion • Understand the concept of plagiarism and the importance

	• Identify the reasons why people share information about themselves online. • Explain the difference between private and personal information. • Explain why it is risky to share private information online. • Define the term "digital footprint" and identify the online activities that contribute to it. • Identify ways they are -- and are not -- in control of their digital footprint. • Understand what responsibilities they have for the digital footprints of themselves and others. • Define "social interaction" and give an example. • Describe the positives and negatives of social interaction in online games. • Create an online video game cover that includes guidelines for positive social interaction. • Reflect on the characteristics that make someone an upstanding digital citizen. • Recognise what cyberbullying is. • Show ways to be an upstander by creating a digital citizenship superhero comic strip. • Define "copyright" and explain how it applies to creative work. • Describe their rights and responsibilities as creators. • Apply copyright principles to real-life scenarios.	• Use logical reasoning to debug programs	• Understand different types of turn and program a robot to perform them. • Change variables to make things happen • Use a loop to repeat sections of an algorithm • Write algorithms to control motors that operate moving and lifting attachments on a robot • Understand what inputs and outputs are • Use sensors to affect a robot's actions • Create conditional statements in an algorithm • Design and create a problem for a robot to solve • Design, write and debug algorithms to solve a robot problem	• Locate and use sound files from online sources. • Select, import and edit existing sound files in sound editing software. • Use editing tools to alter recorded sounds for a specific purpose e.g to alter the mood or atmosphere. • Understand that many types of sounds can be combined in editing software. • Understand issues relating to copyright when choosing music samples and files and apply to their work. • Select, edit, manipulate and combine sound files from a range of sources to create a composition which could be broadcast for a specific purpose and audience • Upload and download projects to other devices and online space, collaborating and communicating with audiences in locations beyond school.	• To understand the difference between hardware and software. • To understand and explain key computer hardware components and their roles within a computer system. • To understand and use the binary number system. • To convert decimal numbers to binary and vice versa. • To know that computers transfer data in binary. • To know that digital computers use binary to represent all data. • To understand how bit patterns represent numbers and images. • To understand the relationship between colours in an image and data. • To understand the relationship between binary and file size (uncompressed). • To compare and contrast different types of computer data storage. • To understand how computers store and process data.	of acknowledging and referencing sources. • Recognise the features of good design in electronic media • Develop consistency across a piece of work. • Demonstrate awareness of the intended audience in their work. • Understand that images, sounds and text can be subject to copyright and abide by copyright rules. • Make use of reviewing tools (comments) to collaborate and evaluate each other's work. • Independently select, and import images, video and sounds from a variety of sources to enhance projects. • Through peer and self assessment, evaluate work and make improvements. • Develop and use criteria to evaluate design and layout of a website.

Computing Progression - Year 6 (2023-24)

National Curriculum Objectives	***A)*** *design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts* ***B)*** *use sequence, selection, and repetition in programs; work with variables and various forms of input and output* ***C)*** *use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs* ***D)*** *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* ***E)*** *use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content* ***F)*** *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* ***G)*** *use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	**Lest We Forget**	**Home Alone**	**Kensuke's Kingdom**	**The Oba Kings**	**One Way Ticket**	
NC Objectives	***E, F, G***	***A, C, F***	***D, F, G***	***A, B, C, F***	***F, G***	
Computing Unit	Digital Literacy and online safety (Y6) 	Spreadsheet Masters 	Inside the internet 	Getting started with the BBC micro:bit 	Creating Instructional Videos 	
Strand	Digital Literacy • Online Safety	Information technology	Information technology Computer Science • Control and Programming	Computer Science • Control and Programming	Digital Literacy • Multimedia ○ Video ○ Text	
Prior Learning	**Keeping safe and exploring technology** – Y1 **Keep Safe and Create** – Y2 **Digital Literacy and Online Safety** – Y3 **Digital Literacy and Online Safety** – Y4 **Digital Literacy and Online Safety** – Y5	**Databases** – Y3	**Finding and Presenting Information** – Y2 **Searching the Web** – Y4	**Action algorithms** – Y1 **Programming direction** – Y1 **Programming with Scratch Jr** – Y2 **Programming with Logo** - Y2 **Animation with Scratch** – Y3 **Getting Started with Kodu** – Y3 **Lego: WeDo** – Y3 **Programming Scratch Maze Games** – Y4 **Kodu Sports** – Y4 **Building Retro Games – Snake/Pong** – Y5 **Lego Robotics** – Y5	**Digital Imagery: Patterns in Nature** – Y3 **Manipulating Sound** – Y5 **Building Collaborative Websites** – Y5	
Key Vocab	*Advertising* *Article* *Avatar* *Balance* *Benefit* *Bias* *Bully* *Bullying* *Bystander* *Clickbait* *Commercial* *Curiosity Gap* *Cyberbullying* *Digital media* *Empathy* *Gender stereotypes*	*Ascending* *Cell* *Cell reference* *Chart* *Column* *Conditional formatting* *Criteria* *Data* *Data set* *Descending* *Format* *Formula* *Information* *Label* *Row* *Sort*	*Computer networks* *Cookies* *CSS* *Data* *Firewall* *Hardware* *HTML (Hypertext Markup Language)* *Internet* *Internet Service Provider (ISP)* *IP (internet protocol) Address* *LAN (Local Area Network)* *Network* *Networked printer* *Online* *Password* *PC (Personal computer)*	*Abstraction* *Algorithm* *Block* *Blocks Palette* *Command* *Coordinate (noun)* *Costume* *Debug* *Decomposition* *Execute* *Input* *Logical reasoning* *Output* *Program* *Repetition/Loop* *Script*	*Annotate* *Capture* *Digital content* *Edit* *Export* *Frame* *Import* *Layer* *Narrate* *Timeline*	

	Headline *Inference* *Media* *Media balance* *Media choices* *News* *Personal information* *Private information* *Risk* *Target* *Upstander*	*Tab* *Workbook* *Worksheet*	*Proxy server* *Redundancy* *Router* *Server* *Server jobs* *Services* *Software* *Switch* *WAN (wide area network)* *Web browser* *Wired Network* *Wireless Access Point (WAP)* *Wireless Network* *World Wide Web*	*Selection* *Sequence* *Sprite* *Stage*	
Basic Skills	• File Print • Highlight Text • Highlight All - **Ctrl A** • Change font style • Change font size • Change font to bold - **Ctrl B** • Change font to italics - **Ctrl I** • Underline text - **Ctrl U** • Align text (left, centre, right, justified) • Shift Capital Letter • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**	• Login • Logout • Finding a document on 'Shared' • File Save As • Type using 2 hands • Highlight Text • Highlight All - **Ctrl A** • Align text (left, centre, right) • Shift Capital Letter • Shift for Special Characters (?!"£&*@:) • Copy text - **Ctrl C** • Paste text - **Ctrl V** • Cut Text - **Ctrl X** • Undo – **Ctrl Z**	• Login • Logout • Shift Capital Letter • Shift for Special Characters (?!"£&*@:)	• Login • Logout • Shift Capital Letter • Undo – **Ctrl Z**	• Finding a document • Save • Type using 2 hands • Highlight Text • Change font style • Change font size • Align text (left, centre, right, justified) • Shift Capital Letter
Programs Used	Google Chrome IWB in class	Google Sheets/Microsoft Excel	www.w3schools.com x-ray-goggles.mouse.org glitch.com	The MakeCode editor on microbit.org	Pages (iPad) iMovie (iPad)
Save Location	Journal	Google Drive/OneDrive School Network	Journal Screenshots to Google Drive	Journal	Within software (numbered iPads)
Objectives	• Reflect on how balanced they are in their daily lives. • Consider what "media balance" means, and how it applies to them. • Create a personalised plan for healthy and balanced media use. • Define "the curiosity gap." • Explain how clickbait uses the curiosity gap to get your attention. • Use strategies for avoiding clickbait. • Define "gender stereotype" and describe how they can be present online. • Describe how gender stereotypes can lead to unfairness or bias. • Create an avatar and a poem that show how gender stereotypes impact who they are. • Compare and contrast different kinds of online-only friendships. • Describe the benefits and risks of online-only friendships.	• Explain what a spreadsheet is • Describe how a spreadsheet could be used by someone at work • Label the different areas of a spreadsheet using the correct vocabulary • Create simple formulae in a spreadsheet. • Recall features of a spreadsheet • Use cell references to complete formulae • Use spreadsheets to complete formulae quickly and easily • Use a spreadsheet to sort data quickly • Use a set of data in a spreadsheet to create an appropriate chart • Use data in a spreadsheet to answer a set of questions • Use information presented in a chart to answers questions	• To know and explain the purpose of key components in a typical school network • To draw, label and explain a typical school network • To know and explain the services offered by a typical school network • To understand how data travels around the Internet • To know how internet servers are connected • To know and explain the job that routers do in the Internet • To understand that web pages are written in HTML • To recognise simple HTML formatting language • To view the HTML page in a browser • To make simple edits to HTML and 'remix' a web page	• To create simple programs to control the LED matrix on the micro:bit • To edit and adapt simple programs on the micro:bit • To download, load and test the .hex file on the micro:bit. • To understand inputs and outputs on a computer • To program the micro:bit's LED matrix to respond to different inputs • Design algorithms that use variables, and selection and arithmetic operators • Use logical reasoning to predict the behaviour of programs. Detects and corrects simple semantic errors i.e. debugging, in programs. • Build and program a physical game that utilises inputs and outputs.	• To understand and explain the features of an instructional video. • To critically evaluate existing instructional videos. • To work successfully in a team to plan an instructional video. • To create a clear and factually accurate script for an instructional video. • To critically evaluate another group's script for an instructional video. • To experiment with text, image and formatting tools in presentation software. • To add text and images to a presentation appropriate for the audience. • To add consistent formatting throughout a presentation. • To record an instructional video guide in small sections. • To cut, trim and order video clips effectively to create a video project. • Critically evaluate your own and others' video, refining for a given audience or task.

	• Describe how to respond to an online-only friend if the friend asks something that makes them uncomfortable. • Recognise similarities and differences between in-person bullying, cyberbullying, and being mean. • Empathise with the targets of cyberbullying. • Identify strategies for dealing with cyberbullying and ways they can be an upstander for those being bullied. • Understand the purposes of different parts of an online news page. • Identify the parts and structure of an online news article. • Learn about things to watch out for when reading online news pages, such as sponsored content and advertisements.	• Use tools (sort, conditional formatting) in a spreadsheet to help someone understand the information more quickly • Create a spreadsheet to test maths facts • Use Conditional formatting to mark the questions	• To edit HTML code and remix a web page • To edit CSS code to change the style of a web page • To know that colours can be written as hexadecimal codes • To independently edit HTML code and remix a web page • To independently edit CSS code to change the style of a web page	• Understand what conditional statements (selection) are, and why and when to use them in a program • Understand what variables are and why and when to use them in a program. • Learn how to create random outputs from a range of possibilities. • Learn how to create, set and change a variable value within a micro:bit program. • Learn how to use the basic mathematical blocks for adding, subtracting, multiplying, and dividing variables.	• Upload and share a video with a group using collaborative web tools.