	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Computing						
Digital Literacy Computing, systems and networks.	Explore how things work. Manage a device by correctly closing websites or apps and safely turning on and off. Begin to identify, with support, examples of technology in the classroom.	To identify technology. To identify a computer and its main parts. To use a mouse in different ways. To use a keyboard to type. To use a keyboard to edit text. To create rules for using technology responsibly.	To recognise the uses and features of information technology. To identify information technology in the home. To identify information technology beyond school. To explain how information technology benefits us. To show how to use information technology safely. To recognise that choices are made when using information technology.	To explain how digital devices function. To identify input and output devices. To recognise how digital devices can change the way we work. To explain how a computer network can be used to share information. To explore how digital devices can be connected. To recognise the physical components of a network.	To describe how networks physically connect to other networks. To recognise how networked devices make up the internet. To outline how websites can be shared via the world wide web. To recognise how the content of the WWW is created by people. To evaluate the consequences of unreliable content.	To explain that computers can be connected together to form systems. To recognise the role of computer systems in our lives. To recognise how information is transferred over the internet. To explain how sharing information online lets people in different places work together. To contribute to a shared project online. To evaluate different ways of working together online.	To identify how to use a search engine. To describe how search engines select results. To explain how search engines are ranked. To recognise why the order of results is important and to whom. To recognise how we communicate using technology. To evaluate different methods of online communication.
Information Technology Creating Media	Input commands using the space bar, backspace, enter, letters and numbers on a keyboard on any device (including on a tablet). Input commands using a mouse to control a cursor and use the left click to select options OR use finger control to interact with a tablet (double tap, swipe)	To use shape tools and the line tools. To make careful choices when painting a digital picture. To compare painting a picture on a computer and on paper. To use a computer to write. To identify that the look of text can be changed on a computer.	To know what devices can be used to take photographs. To use a digital device to take a photograph. To describe what makes a good photograph. To decide how photographs can be improved. To use tools to change an image. To recognise images can be changed. To identify that there are patterns in music.	To explain that animation is a sequence of drawings or photographs. To relate animated movement with a sequence of images. To plan an animation. To identify the need to work consistent and carefully. To review and improve an animation. To evaluate the impact of adding other media to an animation.	To identify that sound can be digitally recorded. To see a digital device to record sound. To explain that a digital recording is stored as a file. To explain that audio can be changed through editing. To show that different types of audio can be combined and played together. To evaluate editing choices made.	To recognise video as moving pictures, which can include audio. To identify digital devices that can record video. To capture videos using a digital device. To recognise the features of an effective video. To identify that video can be improved through reshooting and editing. To consider the impact of choices made when making and sharing a video.	To review existing websites and consider its structure. To plan the features of a web page. To consider the ownership and use of images (copyright). To recognise the need to preview pages. To outline the need to a navigation path. To recognise the implications of linking to content owned by other people.

			To describe how music can be used in different ways. To show how music is made from a series of notes. To create music for a purpose.	To recognise how text and images convey information. To recognise that text and layout can be edited. To choose appropriate page settings. To add content to a desktop publishing publication. To consider how different layouts can suit different purposes. To consider the benefits of desktop publishing.	To explain that digital images can be changed. To change the composition of an image. To describe how images can be changed for different uses. To make good choices when selecting different tools. ==To recognise that not all images are real.== To evaluate how changes can improve an image.	To identify that drawing tools can be used to produce different outcomes. To create a vector drawing by combining shapes. To use tools to achieve a desired effect. To recognise that vector drawings consist of layers. To group objects to make them easier to work with. To evaluate my vector drawing.	To use a computer to create and manipulate three-dimensional digital objects. To compare working digitally with 2D and 3D graphics. To construct a digital 3D model of a physical object. To identify that physical objects can be broken down into a collection of shapes. To design a digital model by combining 3D objects. To develop and improve a digital 3D object.
Information Technology Date and information		To label objects. To identify that objects can be counted. To describe objects in different ways, To count objects with the same properties. To compare groups of objects. To answer questions about groups of objects.	To recognise that we can count and compare objects using tally charts. To recognise that objects can be represented as pictures. To create a pictogram. To select objects by attribute and make comparisons. To recognise that people can be described by attributes. To explain that we can present information using a computer.	To create questions with yes/no answers. To identify the object attributes needed to collect relevant data. To create a branching database. To identify objects using a branching database. To explain why it is helpful for a database to be well structured. To compare the information shown in a pictogram with a branching database.	To explain that data gathered over time can be used to answer questions. To use a digital device to collect data automatically. To explain that a data logger collects 'data points' from sensors over time. To use data collected over a long durations to find information. To identify the data needed to answer questions. To use collected data to answer questions.	To use a form to record information. To compare paper and computer based databases. To outline how grouping and then sorting data allows us to answer questions. To explain that tools can be used to select specific data. To explain that computer programs can be used to compare data visually. To apply my knowledge of databases to ask and answer real-world questions.	To identify questions which can be answered using data. To explain that objects can be described using data. To explain that formula can be used to produce calculated data. To apply formulas to data, including duplicating. To create a spreadsheet to plan an event. To choose suitable ways to present data.
Computer Science Programming	Give commands/instructions e.g. forward, backwards, go, stop, when using simple software/hardware	To explain what a given command will do. To act out a given word. To combine forwards and backwards commands to make a sequence.	To describe a series of instructions as a sequence. To explain what happens when we change the order of instructions.	To explore a new programming environment. To identify that each sprite is controlled by the commands I choose. To explain that a program has a start.	To identify that accuracy in programming is important. To create a program in a text based language. To explain what repeat means.	To control a simple circuit connected to a computer. To write a program that includes count-controlled loops. To explain that a loop can stop when a	To define a 'variable' as something that is changeable. To explain why a variable is used in a program. To choose how to improve a game by using variables.

	Make choices about the buttons/icons to press, touch or click on when using simple software/hardware. Explore floor robots i.e beebots	To combine four direction commands to make sequences. To plan a simple program. To show that a series of commands can be joined together. To design the parts of a project. To use my algorithm to create a program.	To use logical reasoning to predict the outcome of a program. To explain that programming projects can had code and artwork. To design an algorithm. To create and debug a program that I have written. To explain that a sequence of commands has a start. To explain that a sequence of commands has an outcome. To create a program using a given design. To create a program using my own design. To decide how my project could be improved.	To recognise a sequence of commands can have an order. To change the appearance of my project. To create a project from a task description. To explain how a sprite moves in an existing project. To create a program to move a sprite in four directions. To adapt a program to a new context. To develop my program by adding features. To identify and fix bugs in a program. To design and create a maze-based challenge.	To modify a content-controlled loop to produce a given outcome. To decompose a program into parts. To create a program that uses count-controlled loops to produce a given outcome. To develop the use of count-controlled loops in a different programming environment. To explain that in programming there are infinite loops and count controlled loops. To develop a design which includes two or more loops which run at the same time. To modify an infinite loop in a given program. To design and create a project that includes repetition.	condition is met, eg a number of times. To design a physical project that includes a selection. To create a controllable system that includes selection. To explain how selection is used in computer programs. To relate that a conditional statement connects a condition to an outcome. To explain how selection directs the flow of a program. To design, create and evaluate a program which uses selections.	To design a project that builds on a given example. To use my design to create an environment. To evaluate my project. To create a program to run on a controllable device. To explain that selection can control the flow of a program. To update a variable with a user input. To use a conditional statement to compare a variable to a value. To design and develop a project that uses inputs and outputs on a controllable device.
	Online Safety						
Copyright, ownership and online information	Begin to use the internet to find things out, with support.	I can explain the difference between things that are real and imaginary.	I can recognise that content on the internet may belong to other people. <mark>I can explain why some of the content I find online may not be true.</mark>	I can explain why copying someone's work form the internet without permission isn't fair and explain what problems this might cause	I can identify the difference between a belief/ opinion and a fact and how this might be shared online. <mark>I can explain what is meant by fake news.</mark>	I can explain how someone might encounter 'influence' and 'manipulation' online.	I can search for information from a wide range of technologies and make a judgement about its probably accuracy. <mark>I can give examples of content that can reused and know how this content can be found online.</mark>

Privacy and Security	Recognise simple examples of personal information and trusted people.	I can recognise examples of information that is personal to someone. I can explain why it is important to ask a trusted adult before sharing information online.	I can explain how passwords can be used to protect information, accounts and devices. I can describe and explain some rules for keeping personal information private.	I can describe simple strategies for keeping passwords safe. I can describe how connected devices can collect and share anyone's data.	I can explain that the internet if never fully private and always monitored. I can describe how some online services might seek consent to store information about me.	I can explain what app permissions are. I can explain and create a strong password.	I can explain what to do if a password is lost or stolen and how to store them safely. IO can describe simple ways to increase privacy on apps, software and games. I can describe ways that people might try and gain money or information illegally online eg. Scams, phishing.
Online Bullying	Recognise that it is okay to say no to someone who asks me to do things I don't want to do.	I can describe ways to behave that do not upset others online. I know how to get help from a trusted adult if I see content that upsets me or makes me uncomfortable.	I can talk about how anyone experiencing online bullying can get help.	I can describe appropriate behaviours to show online and why this is important. I can give examples of how bullying behaviour can appear online.	I can describe ways that people can be bullied through a range of media. I can explain why people need to think carefully about how their content might affect others.	I can describe how online bullying can be different to physical bullying. I can explain how to block abusive users and ways to report concerns of online bullying both at school and at home. I can describe how what one person perceives as playful teasing can be experiences as bullying by others.	I can explain how to capture bullying online as evidence to share with those who help me. I can explain how someone would report online bullying in different contexts.
Self-image and identity / online relationships		I know that I should always ask a trusted adult before clicking 'yes' or 'agree'. I can give examples of when you might communicate with someone online.	I can explain how what is said online might hurt someone's feelings. I can describe ways that people with similar interests can get together online.	I can explain how people can represent themselves in different ways online. I can explain what it means to 'know someone' online and why this is different to offline.	I can explain why some people online might pretend to be someone else. I can explain how my online identity could be different to my offline identity.	I can describe some of the ways people might want to be involved in an online community and how this can be a positive experience. I can describe how things shared privately online could have consequences for others.	I can describe issues online that could make me feel sad, worried, frightened or uncomfortable and how to get help with this. I can give examples of technology specific communication.

Health and Wellbeing	Remember rules without an adult needing to remind them. Explain the reasons for rules, know right from wrong and try to behave accordingly.		I can explain rules to keep me safe when using technology.	I can explain why some online activities have age restrictions.	I can identify times when someone may need to limit the amount of time they use technology. I can identify age restrictions for different medias.	I can recognise the benefits and risks of accessing information about health online. I can explain how using technology can be a distraction from other things, both positively and negatively.	I can assess different actions to help limit the impact of technology on health. I can discuss the pressures technology might place on someone.

Hope
The hope and belief that technology will create useful changes to the modern world and hope that people will use new technology in positive ways.

Wisdom
The computing curriculum allows children to expand their knowledge of problem solving and logical thinking. Our children are encouraged to preserve with problems and use their wisdom to find solutions to errors and faults. They develop a growth mind set where, if they stick at it, they will achieve success.

Community
Our children are taught how to become part of the online community through respect, knowledge and creativity. They will understand how to communicate with others via technology in safe, positive ways both for business and for leisure.

Respect
Our computing curriculum supports children in respecting others online and being kind to those we speak to and interact with, both in school and at home. Our children learn to respect technology and use it in positive ways that can help the world develop and grow.