



Eversholt Progression of Knowledge and Skills in Computing

		EYFS	Year 1	Year 2	Year 3	Year 4
Digital Literacy	E-Safety	<p>Acceptable Use Agreement Talking to a teacher</p> <p>Staying on a safe website or a game</p> <p>Being friendly and kind to others online</p> <p>Do not tell others your password</p>	<p>Understand the SMART online rules: Stay Safe, Meet, Accepting, Reliable, Tell, Be Smart with a Heart*</p> <p>Understand how to use passwords and how to keep them safe.</p> <p>Understand how personal information can be shared easily and how to protect themselves.</p> <p>Talk about the uses of a computer and who are the users.</p> <p>Being kind to others online</p> <p>Be able to search online safely and know that they should close the lid of a laptop (or similar action) if they find inappropriate images and tell an adult.</p>	<p>Understand the SMART online rules*</p> <p>Understand how to use passwords and how to keep them safe.</p> <p>Understand how personal information can be shared easily and how to protect themselves.</p> <p>Being kind to others online.</p> <p>Be able to search online safely and know that they should close the lid of a laptop (or similar action) if they find inappropriate images and tell an adult.</p> <p>Know to ask before taking photos of others.</p> <p>Understand that personal information should be kept private: it should not be posted online to a public audience.</p> <p>Recognise that photos they take in school should not normally be posted to the open web. They should know that photos taken with smartphones often contain hidden information about where the photo was taken.</p>	<p>Revisit the 'SMART' rules.</p> <p>Understand how to keep information safe online.</p> <p>Talk about what online bullying looks like.</p> <p>Show respect for others when working online.</p> <p>Understand about safety through e-mails.</p> <p>Treat links and attachments in emails with caution.</p> <p>Understand dangers with online gaming and chatrooms and how to stay safe.</p> <p>Observe age restrictions on computer games.</p> <p>Know who to talk to about concerns and inappropriate behaviour in school.</p> <p>Decide whether a web page is relevant for a given purpose or question.</p> <p>Know to respect others' rights, including privacy and intellectual property when using computers, so should not look at someone else's work or copy it without permission and acknowledgement.</p>	<p>Revisit the 'SMART' rules.</p> <p>Understand how to keep information safe online.</p> <p>Talk about what online bullying looks like.</p> <p>Show respect for others when working online.</p> <p>Understand about safety through e-mails.</p> <p>Treat links and attachments in emails with caution.</p> <p>Understand dangers with online gaming and chatrooms and how to stay safe.</p> <p>Observe age restrictions on computer games.</p> <p>Know who to talk to about concerns and inappropriate behaviour in school.</p> <p>Know to respect others' rights, including privacy and intellectual property when using computers, so should not look at someone else's work or copy it without permission and acknowledgement.</p> <p>Know that concerns in online platforms can be reported to the community moderators.</p> <p>Form a judgement about whether a web page is appropriate for finding out the answer to a question they have or for a given purpose.</p>



Eversholt Progression of Knowledge and Skills in Computing

	Using IT Beyond School	Identify a range of technology and their uses.	Mention some of the ways in which IT is used to communicate beyond school. E.g. They might know that some people use social media such as Facebook, email, video calls or online greetings to say happy birthday to their friends.	Name a number of purposes for which IT is used beyond school. Understand that adults can share work and discuss ideas in online communities; Photos can be taken, edited and shared easily using digital technology. The web is made up of information shared by people and organisations. People use email for a range of purposes and in a variety of contexts. Scientists use computers when collecting and analysing data.	Not taught in KS2	
Information Technology	Devices	iPads, Bee-Bots, cameras, CD-players, microscope, electronic toys, desktop, timers	iPads, Bee-Bots, cameras, Chromebooks, timers, CD Players, microscope, voice recorder	iPads, cameras, Chromebooks, timers, CD players, microscope, voice recorder, data loggers		
	Programs	Online games Pre-installed computer games: Jellybods, Purple Mash/Mini Mash Discovery Espresso	Online games Purple Mash word processing, publisher, art. Discovery Espresso Discovery Coding Various iPad Apps Google Classroom	Online games Purple Mash word processing, publisher, art. Discovery Espresso Discovery Coding Various iPad Apps Google Classroom	Online games Purple Mash Discovery Espresso Discovery Coding Various iPad Apps Google Classroom Google apps: Drive, Docs, Slides, Forms Google Search Engine Google Classroom	Online games Purple Mash Discovery Espresso Discovery Coding Various iPad Apps Google Classroom Google apps: Drive, Docs, Slides, Forms Google Search Engine Google Classroom



Eversholt Progression of Knowledge and Skills in Computing

		Various iPad Apps Google Classroom				
	Creating Content	Use hardware to interact with a game on a computer (mouse and keyboard). Take videos and pictures on a device or camera. Zoom in on an iPad to look closely at a picture. Type a simple sentence on a keyboard. Create art and pictures online.	Be able to log in to a computer using a username and a password. Be able to find apps for a purpose on a device. Play a simple game. Understand how to save a file on a computer. Follow directions to retrieve saved content. Be able to insert pictures into a document. Be able to drag, place and resize pictures. Take pictures and videos. Create simple word processing documents on Purple Mash. Create art and pictures online.	Be able to save and retrieve items in different file locations. Be able to copy and paste pictures into a document. Be able to drag, place and resize pictures. Think about purpose and design of a document. Create and edit original content for a given purpose using digital technology. Create simple word processing documents on Purple Mash. Create art and pictures online. Introduce a variety of ways to display information.	Be able to log in to their Google account and navigate around the apps. Understand how to save, organise and share files on Google Drive. Be able to copy, paste and organise information. Be able to change font and size of lettering. Add a picture to a slideshow or document. Create a range of document types using the Google apps. Use a range of software on laptop or tablet computers with some degree of independence. Understand how to create presentations, simple spreadsheets, surveys and word processing documents. Explore how to edit pictures or videos. Plan and create a document for a purpose. Collect information and present this to an audience.	Make decisions about how to display information for a specific purpose or audience. Include pictures, clip art and change of font in documents. Be able to include transitions and animations in slideshows. Use multiple programs on laptop or tablet computers to achieve particular goals. Design and create content on a computer in response to a given goal with some degree of independence. Plan how they could contribute to a collaborative project. Understand how numerical data can be presented.
	Internet Searching	Not taught in EYFS.	Not taught in Yr 1.	Locate a search bar on a webpage. Understand how to search for a topic on a familiar	The child can search for information within a single site. The child can use browser-specific tools to locate	Use a standard search engine to find information. The child can use a common search engine (such as Google with safe search mode locked



Eversholt Progression of Knowledge and Skills in Computing

				website e.g. PurpleMash or Discovery Espresso.	particular information on a web page or within a website. The child can understand that search engines select pages according to keywords found in the content.	in place) effectively, to search for particular information on the web, such as answers to questions they identify in a research project. Understand that search engines rank pages according to relevance. Reconsider the keywords used if search results are not useful.
Computer Science	Computational Thinking Logic Evaluate Algorithm Pattern Decomposition Abstraction Approaches Tinkering Creating Debugging Persisting Collaborating	Sequence a familiar story Make predictions of what might happen next in a story Find missing numbers in simple number sequences Find and make simple patterns	Use logic to predict what comes next in the story Identify and solve simple problems Evaluate the effectiveness of the approach or finished product Modify your approach or an element of the finished product Create simple flow chart algorithm Understand algorithms as sequences of instructions in everyday contexts Take real-world problems and then plan a sequence of steps to solve these Create and finish patterns Sort data into different categories Can draw a simplified version of an object, maintaining important information.	Use logic to predict the next number in the sequence Evaluate the effectiveness of the approach or finished product Modify your approach or an element of the finished product Create a yes or no flow chart algorithm Sequence a set of instructions Recognise that common sequences of instructions or sets of rules can be thought of as algorithms. See patterns in numbers. Sort and categorise useful information. Break down a set of simple instructions into simple actions. Can draw a simplified version of a map,	Use logic to detect errors in a problem. Evaluate the effectiveness of the approach or finished product Modify your approach or an element of the finished product Create block code and display the algorithm Create an algorithm for a task with choices. Sequence the algorithm in a flow diagram. Understand the pattern in binary numbers Understand that computer networks transmit information in a digital (binary) format. Explain that any information has to be converted to numbers before it can travel through computer networks Decomposition - break down the steps to solve a problem.	Use logical thinking to solve problems including the 'Seven Bridges of Königsberg' Puzzle Give well-thought-through reasons for errors they find in programs and explain how they have fixed these Evaluate the effectiveness of the approach or finished product Modify your approach or an element of the finished product Create an algorithm flow chart for a problem with variants Use logical reasoning to detect and correct errors in programs Understand the patterns in binary numbers and be able to convert and use binary numbers Learn to use binary searching Simplify a problem to its raw elements



Eversholt Progression of Knowledge and Skills in Computing

				maintaining important information.	Draw a simplified version of a problem.	
	Coding and Programming	<p>Give simple instructions to a bee bot to move to an end point. Give and follow instructions.</p>	<p>Practise giving instructions to make objects on the screen move when the program starts</p> <p>Learn how to make objects move when they are clicked</p> <p>Learn to add your own images to a program</p> <p>Learn how to combine start events and click events to make a simple game.</p> <p>Create a code for a bee bot using block coding.</p> <p>Program a Beebot using sequences of instructions to implement an algorithm.</p> <p>Create a Bee Bot program using a number of steps in order before pressing the Go button.</p> <p>Give explanations for what they think a program will do.</p>	<p>Create a code for a bee bot and record the code</p> <p>Learn how to code an object to move around the screen when keys are pressed</p> <p>Learn how to move an object on an iPad/ tablet screen using 'swipes'. (You can do this with a mouse too)</p> <p>Learn to make your own app or game with a purpose in mind. Add your own pictures, and learn to add your own events too</p> <p>Learn how to give instructions to make objects on the screen move when the program starts.</p> <p>Debug any errors in their own code.</p>	<p>Design and write a program using a block language.</p> <p>Sequence a set of commands or blocks in an appropriate order.</p> <p>Learn how to program a sequence of actions, making different pieces of code execute at different times</p> <p>Make a simple animation</p> <p>Learn how to program a sequence of objects to appear and disappear at specific times to simulate a physical system</p> <p>Learn to design, write and debug your own app; practise using time in code to create an animation</p> <p>Learn how to use conditional 'if' statements</p> <p>Learn to design and make your own app; practise using conditional events in code and debugging code when there is a problem.</p> <p>Create a program that produces output on screen, such as moving sprites or displayed text. Use logical reasoning to detect errors in programs. Give well-thought-through</p>	<p>Create code including repetition (a cycle)</p> <p>Design and write a program using a block language to a given brief, including simple interaction.</p> <p>Use sequence and repetition in programs.</p> <p>Understand that repetition is likely to be 'forever' or for a set number of times, although end conditions (e.g. repeat...until...) could be used.</p> <p>Learn how to use variables to keep track of the score in a game</p> <p>Learn how to count and total up objects and prices, simulating a shop till</p> <p>Learn how to use loops to create animations that repeat infinitely</p> <p>Learn to design and make your own app. Practice using repetition and loops in code and debugging code when there is a problem. Write a program that accepts keyboard input and produces on-screen output. Write a program that displays a question, accepts typed input and responds in an</p>



Eversholt Progression of Knowledge and Skills in Computing

					reasons for errors they find in programs.	appropriate way to what is typed.
	Understanding Computers and Networks	Identify a range of technology and their uses.	Identify a range of technology and their uses.	Identify the parts of a computer and understand what they do.	Identify the parts of a computer and which parts input information and what displays outputs. Understand that email and videoconferencing are made possible through the internet. Know that email messages are sent and received through servers connected to the internet. Know that Skype and other videoconferencing systems also work through the internet, but these services may be direct, peer-to-peer connections rather than via servers.	Understand how the internet makes the web possible. Give an explanation of how requests for web pages, and the HTML for those pages, are transmitted via the internet. Understand that the internet transmits information as packets of data. Explain that the information they send and receive is automatically broken down into packets of data, and that these sometimes take different routes across the internet.

*SMART Online Rules:

SAFE - Keep your personal information safe.

MEET - It is dangerous to meet up with someone you only know online.

ACCEPTING - Think carefully before you click on or open something online (e.g. links, adverts, friend requests, photos)

RELIABLE - You cannot trust everything you see online as some things can be out of date, inaccurate or not entirely true.

TELL - Tell a trusted adult if something or someone ever makes you feel upset, worried or confused.

BE SMART WITH A HEART - Be kind and respectful to others online.