



Computing progression at St Mawes Primary

Computing			
Three and Four-Year-Olds	Personal, Social and Emotional Development		<ul style="list-style-type: none"> Remember rules without needing an adult to remind them.
	Physical Development		<ul style="list-style-type: none"> Match their developing physical skills to tasks and activities in the setting.
	Understanding the World		<ul style="list-style-type: none"> Explore how things work.
Reception	Personal, Social and Emotional Development		<ul style="list-style-type: none"> Show resilience and perseverance in the face of a challenge. Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> -sensible amounts of 'screen time'.
	Physical Development		<ul style="list-style-type: none"> Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
	Expressive Arts and Design		<ul style="list-style-type: none"> Explore, use and refine a variety of artistic effects to express their ideas and feelings.
ELG	Personal, Social and Emotional Development	Managing Self	<ul style="list-style-type: none"> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Expressive Arts and Design	Creating with Materials	<ul style="list-style-type: none"> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science						
Programming	<p>I can understand and create algorithms in order (steps or rules as instructions, e.g. how to make a sandwich)</p> <p>I understand that algorithms must be precise and accurate</p>	<p>I can predict the behaviour of simple programs</p> <p>I can create and run a program (an algorithm or multiple algorithms that can be understood by a computer)</p> <p>I can debug (find and fix a problem) within a simple program</p>	<p>I can use selection in my programs. (Also known as conditionals or When / Then statements). (e.g. When space bar is pressed, then sprite jumps)</p> <p>I can use repetition (sometimes referred to as loops) in my programs.</p>	<p>I can create variables within my programs (e.g. a timer, score)</p> <p>I can debug programs multiple times to accomplish specific goals</p>	<p>I can write code that uses variables as a condition for selection (e.g. use a variable to select which lighting pattern will run on a set of traffic lights)</p> <p>I can decompose (break into smaller chunks) a programming problem</p>	<p>I can use a random function in my code for purposeful effect (e.g. a program randomly chooses a number from 1-4 and displays a corresponding statement)</p> <p>I can produce a multifunction, debugged program that uses variables, selection and repetition.</p>
Controlling hardware and machines	<p>I can identify the major parts of digital devices (e.g. keyboard, screen, power, batteries, touchscreen, power button and trackpad)</p>	<p>I understand that digital devices run programs that have been created by humans</p>	<p>I can identify inputs of common computing devices (e.g keyboard, temperature sensor, tilting a device)</p> <p>I can identify the outputs of common computing devices (e.g. display on a screen, Bluetooth signal, print)</p>	<p>I can control or simulate programmable hardware (e.g. a Sphero robot)</p>	<p>I can create code that acts on multiple inputs</p> <p>I can create code that produces multiple outputs</p>	<p>I can program and debug multiple functions on programmable hardware (e.g. with a Microbit)</p>

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Information Technology						
Operate, Understand and Implement	<p>I can use apps and websites to help my learning</p> <p>I can save and find work that I have produced (includes auto-save)</p> <p>I can move a cursor with the trackpad and click on an icon</p>	<p>I can type and edit text</p> <p>I can use two-finger scrolling on a touchpad</p> <p>I understand that emails and other digital communications can be sent and received from various types of digital device</p>	<p>I know how to search for items on the internet</p> <p>I can use technology to organise and manipulate digital content</p> <p>I can type to achieve a specific goal</p> <p>I can perform a two-finger click to access additional options</p>	<p>I can present collected information or data to a group or audience</p> <p>I can type to achieve a specific goal, including accurate punctuation and spelling check</p> <p>I can use technical vocabulary to describe how computing equipment and networks function, including storage (e.g. USB drives, Google drive), apps and the world wide web</p>	<p>I can edit and improve onscreen writing, including digital thesaurus use</p> <p>I can collaborate meaningfully with networked technologies (for example, within a shared document or shared workspace)</p> <p>I can combine a variety of software (programs that run on computers) to accomplish given goals</p>	<p>I can collect and analyse data or information using technology (e.g. use a spreadsheet to produce a graph)</p> <p>I can make document layout and design decisions based on purpose (e.g. format a formal letter)</p> <p>I can re-order on-screen sentences for clarity, purpose or effect</p>
Multimedia and Sound	<p>I can use a digital device to capture photos (e.g. with an iPad)</p>	<p>I can use technology to capture and manipulate (position, re-size, rotate) photos as part of a piece of work</p>	<p>I can create video as part of my learning (e.g. using an iPad)</p> <p>I can create an animation (e.g. stop-frame animation on an iPad)</p>	<p>I can create sound, music or a podcast using digital technology</p> <p>I can create a 3D graphic using computer-aided design software (e.g. using Tinkercad)</p>	<p>I can edit video, bringing together different media elements (e.g. stills, video, captions and sound) to produce an effective final product</p> <p>I can storyboard and create an animation</p>	<p>I can design, create and edit sound, music, or a podcast using digital technology</p> <p>I can design, create and modify 3D graphics for purpose using computeraided design software (e.g. using Tinkercad)</p>

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Digital Literacy						
Self-image and Identity	If something happens that makes me feel sad, worried, uncomfortable or frightened I can say how and when to speak to an adult I can trust.	I can describe ways in which people might make themselves look different online.	I can describe ways in which media can shape ideas about gender.	I can explain how my online identity can be different to the identity I present in 'real life'.	I can explain how identity online can be copied, modified or altered.	I can explain how I can represent myself in different ways online.
Online relationships	I can know some ways in which the internet can be used to talk.	I can explain some risks of communicating online with others I don't know well.	I can explain how mine and other people's feelings can be hurt by what is said or written online.	I can explain what it means to 'know someone' online and why this might be different from knowing someone in real life.	I can explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming).	I can demonstrate how I would support others (including those who are having difficulties) online.
Online reputation	I can say which information I should not put online without asking a trusted adult first.	I can explain how information put online about me can last for a long time.	I know who I should ask if I am not sure if I should put something online.	I can describe how others can find out information about me by looking online.	I can describe ways that information about people online can be used by others to make judgments about an individual.	I can describe some simple ways that help build a positive online reputation.
Online bullying	I can say how to behave online in ways that do not upset others		I can describe rules about how to behave online and how I follow them.	I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation).	I can explain how I would report online bullying on the apps and platforms that I use.	I can identify a range of ways to report concerns both in school and at home about online bullying.

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Digital Literacy						
Managing online information	I can identify devices I could use to access information on the internet.	I can show how to move around a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).	I can evaluate digital content and can explain how I make choices from search results.	I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what criteria have to be met before something is a 'fact'	I can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true.	I can demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important.
Health, wellbeing and lifestyle	I can explain rules to keep us safe when we are using technology both in and beyond the home.	I can explain how the rules for keeping us safe work when using technology.	I can identify when I might need to limit the amount of time I use technology.	I can describe ways technology can affect healthy sleep and can describe some of the issues.	I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.	I can assess and action different strategies to limit the impact of technology on my health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise).
Privacy and security	I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).	I can explain why I should always ask a trusted adult before I share any information about myself online.	I can describe simple strategies for creating and keeping passwords private.	I can explain how internet use can be monitored.	I can explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.	I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing).
Copyright and ownership	I can name my work so that others know it belongs to me.	I can see that content on the internet may belong to other people.	I can explain why copying someone else's work from the internet without permission can cause problems.	I can assess and justify when it is acceptable to use the work of others.	I can demonstrate the use of search tools to find and access online content which can be reused by others.	I can demonstrate how to make references to and acknowledge sources I have used from the internet.