Bugle School

Computing Curriculum Overview - Year A

Digital Learning Cornwall mixed age planning

	Year R/1 Y1 to cover Y1/2 content	Year 1/2	Year 3/4	Year 4/5	Year 6
Computer Science: Programming, including Controlling Hardware	Computational thinking	Year 2 Programming A: Scratch Jr Year 2 Programming B: Robot Algorithms	Year 4 Programming A: Repetition with Shapes Year 4 Programming B: Repetition in games	Programming A: Selection with Microbits Year 5 Programming B: Selection in Quizzes	Year 6 Programming A: Variables in games Year 6 Programming B: Microbits – Getting Active
Computer Science: Data & Information	Data & information	Year 1 Data & information: Grouping Data	Year 4 Data & Information: Data Logging	Year 6 Data & Information: Spreadsheets	Year 6 Focus on Operational Core Skills
Information Technology: Computer Systems & Contexts	IT Around Us	Year 2 IT Around us: Computer Systems & Networks	Year 3 IT Around Us: Connecting Computers	Year 5 IT Around Us: Systems & Searching	Year 6 IT Around Us: Communication & Collaboration
Information Technology: Digital Media	Media & Sound Foundations	Year 1 Digital Design: Digital Photography Year 1 Digital Design: Digital Writing	Year 3 Digital Design: Animation Year 3 Digital Design: Book Creator	Year 5 Digital Design: Vector Graphics Year 6 Digital Design: Web Page Creation	Year 6 Digital Design: 3D Modelling Year 5 Digital Design: Video Editing

Bugle School

Computing Curriculum Overview - Year B

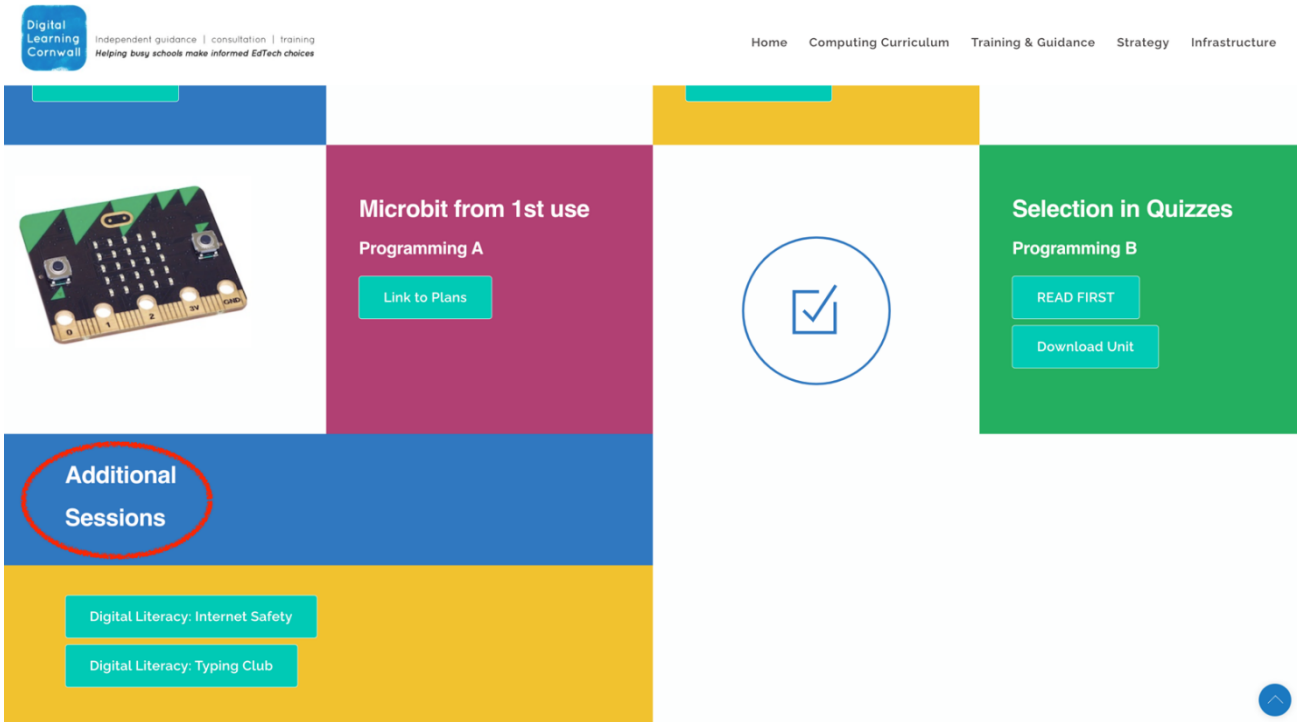
Digital Learning Cornwall mixed age planning

	Year R/1 Y1 to cover Y1/2 content	Year 1/2	Year 3/4	Year 4/5	Year 6
Computer Science: Programming, including Controlling Hardware	Computational thinking	Year 1 Programming A: Moving a Robot Year 1 Programming B: Programming Animations	Year 3 Programming A: Sequences in Music Year 3 Programming B: Events and Actions	Programming A: Sequences in Music (with Microbits) Sphero Programmable Hardware	Year 6 Programming A: Variables in games Year 6 Programming B: Microbits – Getting Active
Computer Science: Data & Information	Data & information	Year 2 Data & information: Pictograms	Year 3 Data & Information: Branching Databases	Year 4 Data & Information: Flat-file Databases	Year 6 Focus on Operational Core Skills
Information Technology: Computer Systems & Contexts	IT Around Us	Year 1 IT Around us: Technology Around Us	Year 4 IT Around Us: The Internet	Year 5 Focus on Operational Core Skills	Year 6 IT Around Us: Communication & Collaboration
Information Technology: Digital Media	Media & Sound Foundations	Year 2 Digital Design: Digital Painting Year 1 Digital Sound: Making Music	Year 4 Digital Design: Photo Manipulation Year 4 Digital Sound: Audio Editing	Year 5 Digital Design: Video Editing (Cross curricular) Year 6 Digital Design: Web Page Creation (Cross curricular)	Year 6 Digital Design: 3D Modelling Year 5 Digital Design: Video Editing

Digital Literacy including Internet Safety

Digital Literacy is split into *Operational Core Skills* and *Internet Safety*.

The following *Operational Core Skills* tasks and objectives are featured and interwoven within specific Computing units, extending coverage well above what is featured in the national curriculum. Schools may also wish to teach operational core skills more explicitly, e.g. brief typing practise sessions.



Internet Safety tasks often find crossover and incorporation into a school's PSHE delivery. We feature a separate page of resources for each year group.

The 'Additional Sessions' section of the Computing curriculum (at the bottom of each year-group page) provides advice and guidance on the delivery of all of these extra sessions).

	EYFS	Year R/1	Year 1/2	Year 3/4	Year 4/5	Year 6
Digital Literacy	Operational Core Skills Children *use hand-eye coordination to operate devices such as touch-screens and touchpads* Internet Safety Children explore internet safety concepts at an appropriate level through retelling of stories and discussion. Children explore safe use of technology along with other physical items within their settings,	Operational Core Skills Children will use websites and apps to aid their learning. Children are able to save and retrieve work they have produced. Children learn to move a cursor with the trackpad on a laptop, Internet Safety Children give examples of when and how to speak to an adult when they need to. Children recognise some ways in which the internet can be used to communicate. Children describe what information I should not put online without asking a trusted adult first. Children describe how to behave online in ways that do not upset others	Operational Core Skills Children will develop their understanding of creating and manipulate text further. Children will become familiar with using a keyboard to enter, edit and remove text. Children will also consider how to change the appearance of text, and will be able to justify their reasoning in making such changes. Children will consider the differences between using a computer to create text, and handwritten approaches. Children practise key skills such as two-finger scrolling, use of the shift key for capital letters, and deleting chosen parts of on-screen text. Internet Safety Children describe ways in which people might make themselves look different online. Children explain some risks of communicating online with others they don't know well. Children explain how information put online about them can last for a long time.	Operational Core Skills Children use software to edit and improve written work from a cross-curricular subject. Children develop their use of the shift key, using numerous basic punctuation marks correctly within their on-screen writing. Children type to achieve a completed written piece that can be printed or published directly to the internet. Children use specific typing software to improve keyboard skills and awareness. Operational Core Skills Children further improve their ability to type towards completed work, including more advanced punctuation marks and accuracy. Children use digital spell-check facilities to locate and correct spelling mistakes. Children will use multiple tabs within a web browser or move between different apps as part of a task. Internet Safety Children describe ways in which media can shape ideas about gender. Children explain how their own and other people's feelings can be hurt by what is said or written online. Children know who they should ask if they are not sure if they should put something online. Children describe rules about how to behave online and how to follow them.	Operational Core Skills Children further improve their ability to type towards completed work, including more advanced punctuation marks and accuracy. Children use digital spell-check facilities to locate and correct spelling mistakes. Children will use multiple tabs within a web browser or move between different apps as part of a task. Operational Core Skills Children will become confident and competent users of web-based programs and apps, combining numerous web-based programs and/or apps to accomplish goals. Children hone and improve their ability to type and improve on-screen written work, and continue to access typing practise software to develop this area. Children use digital thesaurus facilities to replace words and phrases with better choices. Internet Safety Children explain how identity online can be copied, modified or altered. Children explain how impulsive and rash communications online may cause problems. Children describe ways that information about people online can be used by others to make judgments about an individual.) Children explain how they would report online bullying on the apps and platforms that they use.	Operational Core Skills Children will look critically at their written on-screen pieces, and re-order on-screen sentences for clarity, purpose or effect. They will be able to type at speed, with accurate spelling and a range of correctly incorporated punctuation. Children will use digital spelling checkers and thesaurus facilities with confidence. Internet Safety Children explain how they can represent themselves in different ways online. Children demonstrate how they would support others (including those who are having difficulties) online. Children describe some simple ways that help build a positive online reputation. Children identify a range of ways to report concerns both in school and at home about online bullying.

		Children identify devices they could use to access information on the internet. Children explain rules to keep us safe when we are using technology both in and beyond the home. Children identify some simple examples of personal information (e.g. name, address, birthday, age, location). Children name their work so that others know it belongs to them.	Children describe how to behave online in ways that do not upset others. Children demonstrate how to navigate a simple webpage to get to information they need (e.g. home, forward, back buttons; links, tabs and sections). Children create rules for using technology safely Children explain why they should always ask a trusted adult before they share information about themselves online. Children recognise that content on the internet may belong to other people.	Children evaluate digital content and can explain how to make choices from search results. Children identify situations where they might need to limit the amount of time they use technology. Children describe simple strategies for creating and keeping passwords private. Children explain why copying someone else's work from the internet without permission can cause problems. Internet Safety Y4 Children explain how their online identity can be different to the identity they present in 'real life'. Children explain what it means to 'know someone' online and why this might be different from knowing someone in real life. Children describe how they can find out information about someone by looking online. Children explain why they need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation). Children analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. Children understand what criteria have to be met before something is a 'fact. Children describe ways technology can affect healthy sleep and can describe some of the issues. Children explain how internet use can be monitored. Children assess and justify when it is acceptable to use the work of others.	Children explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true. Children describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. Children explain how lots of free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. Children demonstrate the use of search tools to find and access online content which can be reused by others. Internet Safety Y4 Children explain how their online identity can be different to the identity they present in 'real life'. Children explain what it means to 'know someone' online and why this might be different from knowing someone in real life. Children describe how they can find out information about someone by looking online. Children explain why they need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation). Children analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. Children understand what criteria have to be met before something is a 'fact. Children describe ways technology can affect healthy sleep and can describe some of the issues. Children explain how internet use can be monitored. Children assess and justify when it is acceptable to use the work of others.	Children demonstrate strategies to enable them to analyse and evaluate the validity of 'facts. Children explain why using these strategies are important. Children assess and action different strategies to limit the impact of technology on their health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise). Children describe ways in which some online content targets people to gain money or information illegally; children describe strategies to help them identify such content (e.g. scams, phishing). Children demonstrate how to make references to and acknowledge sources they have used from the internet.