Trannack School Computing Progression of Skills

Years →	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Classes→	Praa Sands		Portreath		Godrevy		

| Key concepts Code This concept involves developing an understanding of instructions, logic and sequences. | Control motion by specifying the number of steps to travel, direction and turn.

Add text strings, show and hide objects and change the features of an object.

 Select sounds and control when they are heard, their duration and volume.

Control when drawings appear and set the pen colour, size and shape.

 Specify user inputs (such as clicks) to control events.

 Specify the nature of events (such as a single event or a loop).

Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?). | Use specified screen coordinates to control movement.

Set the appearance of objects and create sequences of changes.

Create and edit sounds. Control when they are heard, their volume, duration and rests.

Control the shade of pens.

specify conditions to trigger events

 Use IF THEN conditions to control events or objects.
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Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions).

Use variables to store a value. | Set IF conditions for movements. Specify types of rotation giving the number of degrees.

Change the position of objects between screen layers (send to back, bring to front).

Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation.

Combine the use of pens with movement to create interesting effects.

Set events to control other events by 'broadcasting' information as a trigger.

Use IF THEN ELSE conditions to control events or objects.

Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions.

Use lists to create a set of variables. |

		Use the functions define, set, change, show and hide to control the variables.	
Key vocabulary related to concept	Code, design, write, debug, accomplish, controlling, simulating, physical systems, decomposing, sequence, selection, repetition, variables, input, output, logical, reasoning, algorithms, If conditions, rotation, degrees, position, screen layers, upload, fade in, fade out, implementation, combine, events, broadcasting, trigger, IF THEN ELSE conditions, sensing tools, proximity, user inputs, variables, lists, Boolean operators, reporter operators		
To Connect This concept involves developing an understanding of how to safely connect with others.	Participate in class social media accounts. Understand online risks and the age rules for sites.	Contribute to blogs that are moderated by teachers. Give examples of the risks posed by online communications. Understand the term 'copyright'. Understand that comments made online that are hurtful or offensive are the same as bullying. Understand how online services work.	Collaborate with others online on sites approved and moderated by teachers. Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder. Understand the effect of online comments and show responsibility and sensitivity when online. Understand how simple networks are set up and used.
Key vocabulary related to concept	Computer network, internet, multiple services, world wide web, communication, collaboration, set up, Select, use, combine, variety, software, internet services, digital devices, design, create, programs, systems, content, accomplish, goals, collecting, analysing, evaluating, presenting, data, information, collect, applications, devise, construct, manipulate, databases, search technologies, results, selected, ranked, discerning, digital content, applications, communication, advanced features, high quality, professional, efficient communication		
Communicate This concept involves using apps to communicate one's ideas.	Use a range of applications and devices in order to communicate ideas, work and messages.	Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	Choose the most suitable applications and devices for the purposes of communication. Use many of the advanced features in order to create high quality, professional or efficient communications.
Key vocabulary related to concept			

To Collect	Use simple databases to record information in areas across the curriculum.	Devise and construct databases using applications designed for this purpose in areas across the curriculum.	Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.
This concept involves developing an understanding of databases and their uses			
Key vocabulary related to concept			

Key concepts in detail:

To Code
This concept involves developing an understanding of instructions, logic and sequences. Children will be taught coding throughout their time at Trannack Primary due to the ever changing digital world. They will quickly learn that lots of things in our daily lives require programming and code to work; the children will have had many different experiences of coding from at home with washing machines etc and possibly their 'Alexa' to at school using 'Beebots', 'Scratch and even professional programming languages. It is vital that the children understand how things work and can apply this knowledge across the curriculum.

To Connect
This concept involves developing an understanding of how to safely connect with others. Due to the advances in technology it is imperative that children know how to keep themselves safe at all times. Children will be taught how to keep themselves safe online throughout their time at Trannack Primary; this will be taught at the appropriate level for the age group, abilities, and knowledge, of the children. As children have more access to the internet through the use of tablets, laptops, watches etc, it is vital that they understand and can choose websites and games that are appropriate for their age; the children will need to understand why and where to find appropriate games and websites. We also believe that due to the deterioration in children's mental health and behaviour, children need to learn the importance of limiting this screen time. In addition, children will learn about online bullying and how to behaviour when accessing social media as a tool to communicate; exploring the benefits as well as how to stay safe. We strive to actively prepare the children to be competent in explain the consequences of different actions in relation to keeping safe online. The children will leave Trannack Primary with a good understanding of the need to act within the law and with moral and ethical integrity; this knowledge is vital when thinking about their daily lives and transition into Key Stage3. In Key Stage 1 the children will also be introduced to what technology is and where it can be found. Throughout Key Stage 2, the children will build on this knowledge to explore parts of a computer and the internet and how it works.

To communicate
This concept involves using apps to communicate one's ideas. Being digitally literate is vital and the knowledge and skills taught throughout their time at Trannack Primary will be applied using different software and/or technology. Everything that the children will create will be in direct response and consideration of their audience. A good understand of reliability of information is vital when using the internet, Children will explore fake news, websites and how social media cannot always be taken Reception – Year 6 as reliable; whilst recognising the benefits of information being readily available on the internet, this is an ever growing problem that children need to be able to recognise. Children will also learn how to check who owns photographs, text and clip art and apply their knowledge of copyright. The children will leave Trannack Primary being able to tell you why they have used particular tools and how they have decided to share their work. Everything that they create and use will be evaluated for its quality and reliability. This knowledge and rigor is vital to ensure they become computer literate, preparing them for Key Stage 3 and their adult life.

To collect
This concept involves developing an understanding of databases and their uses. The children need to understand how to collect, understand and evaluate data, in order to prepare them for their daily lives. Technology is all around us and we would like to prepare our children, for this. Throughout their time at Trannack Primary , the children will become more independent to select tools to collect data; they will confidently interpret data and check it for accuracy and plausibility and apply this to real life situations.

<u>Intent, implementation and impact</u>

Intent
Computing is an invisible footprint across all aspects of a child's life. A high-quality computing curriculum equips children to use computational thinking and creativity to understand and change the world. Computing has links with mathematics, science and design and technology with insights into both natural and artificial systems. Computer Science is the core of computing where children are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. From here pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that our children are digitally literate; able to use, express themselves and develop ideas through ICT as participants in the digital world and in the future workplace.

Implementation
Computing is taught using a blocked curriculum approach with discrete lessons, this ensures children are able to develop depth in their knowledge and skills over the duration of each of their computing topics. We have laptops, iPads and interactive whiteboards to ensure that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum. Employing cross-curricular links motivates pupils and supports them to make connections and remember the steps they have been taught.
Our curriculum also ensures a balanced coverage of computer science, information technology and digital literacy. The children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is scaffolded and all National Curriculum requirements are covered.
Internet safety is taken extremely seriously and is embedded within our curriculum. We have an E-Safety Policy that provides guidance for teachers and children about how to use the internet safely. Staying safe online continues throughout the year. Children understand how to stay safe when using technology and Internet safety days are held regularly to address current issues.

Impact
Our Computing curriculum is high quality, well thought out and is planned to demonstrate progression and prepare children for their life ICT journey.