# Computing progression at St Mawes Primary

| | Foundation Stage | Key Stage 1 | | Lower Key Stage 2 | | Upper Key Stage 2 | |
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| **Computer Science** | *I can create simple programs within an app*<br><br>*I can work with various forms of input* | *I can understand that programs run by following precise instructions*<br><br>*I can predict the behaviour of simple programs*<br><br>*I can understand and use algorithms* | *I can 'debug' simple programs*<br><br>*I can work with various forms of output* | *I can work with variables*<br><br>*I can create programs that accomplish specific goals* | *I can debug and improve programs that accomplish specific goals*<br><br>*I can use repetition and selection in programs* | *I can control or simulate physical systems*<br><br>*I can use a random function in my code for purposeful effect* | *I can use technical vocabulary confidently to describe how computers and networks function, including the world wide web and online storage.*<br><br>*I can write code that performs calculations with variables* |
| **Information Technology** | *I can use apps to help me learn* | *I can use a variety of software to accomplish set goals*<br><br>*I can use technology to create and store digital content* | *I can use the Internet effectively, including search technologies*<br><br>*I can collect information and present it to a group or audience*<br><br>*I can use technology to organise and manipulate digital content* | *I can create video as part of my learning*<br><br>*I can plan and create animation*<br><br>*I can combine a variety of software to accomplish given goals* | *I can edit video, bringing together different media elements for purposeful effect*<br><br>*I can create music / sound using digital technology* | *I can appreciate how search results are selected and ranked*<br><br>*I can collect and analyse data or information using technology* | *I can design my own app or website*<br><br>*I can produce and test my own app or website* |
| **Digital Literacy** | *I can explain where to go for help when something on the Internet worries me*<br><br>*I can type my name* | *I can use technology respectfully*<br><br>*I can talk about uses of digital technology outside of school*<br><br>*I can type and edit text for purpose with good accuracy* | *I understand what personal information is and that posting such information on the Internet could be dangerous*<br><br>*I can type to achieve a specific goal, including accurate punctuation*<br><br>*I understand the need for rules to help stay safe online* | *I can recognise acceptable/unacceptable online behaviour*<br><br>*I can identify a range of ways to report concerns about contact and content* | *I can respond to e-safety scenarios with sensible advice*<br><br>*I can be discerning in evaluating digital content*<br><br>*I can edit and improve on-screen writing, including spell-check and thesaurus use* | *I understand the concept of cyber bullying and what to do if I think it is occurring*<br><br>*I can explain the concept of a 'digital footprint' and the issues it might create* | *I can use computer networks for* |

*Key Vocabulary*

***Algorithms*** *are a set of instructions to achieve a desired goal e.g. how to make a sandwich successfully or baking a cake by using a precise method.*

***Data*** *is Information.*

***Debugging*** *is simply finding errors within a sequence of events or code and putting them right for a desired end, e.g. to make a computer-generated pen draw a square on the screen, the turns must be through right angles (90 degrees, not 45 or 60 etc.)*

***Decomposing*** *is simply breaking a process or program down into smaller separate steps e.g. building a house is made up of different steps by laying the foundations, building the walls and putting on the roof etc.*

***Sequencing*** *is putting a series of events in the correct order to ensure a desired outcome e.g. spreading butter on a slice of bread before adding the filling.*

***Selection*** *this is an essential part of programming whereby a choice is made if something happens e.g. if it rains, then you put on a raincoat.*

***Repetition*** *is the repeating of a set of instructions over and over again, such as a daily routine which is repeated every day during the course of a school week e.g. wake up, get dressed, have breakfast, go to school, learn and come home etc.*

***Variables*** *these are 'containers' which are used to store information within a program e.g. the score box in a quiz.*

***Binary*** *is the language computers use. It is a series of 1s and 0s and is also used in mathematics.*

***Coding*** *is putting information and commands into a program, making it possible for u to create software, apps and websites.*

***Compile*** *is when we program, we use human words in our codes and programs. However the computer doesn't understand human words, so we have to compile the program – using a compiler – which converts the human words into binary.*

***Input*** *is Information that goes into the computer.*