## **Ottershaw Christ Church C of E School**

## **Curriculum Skills Progression**

## **Computing -Teach Computing**

	Autumn 1.1	Autumn 1.2	Spring 2.1	Spring 2.2	Summer 3.1	Summer 3.2
YR						
Y1	Programming A- Moving A Robot (Computer Science) Can I create a simple program by understanding what algorithms are, implemented as programs on digital devices?	Programming B- Animations (Computer Science) Can I understand what algorithms are and how to use logical reasoning to predict the behaviour of simple programs?	Technology All Around Us (Digital Literacy) Can I use information technology safely and respectfully?	Data and information- Grouping Data (Information Technology) Can I use technology purposefully to create, organise, store, manipulate, and retrieve digital content whilst being aware of my own online safety?	Creating Media- Digital Writing (Information Technology) Can I use technology purposefully to create, organise, store, manipulate, and retrieve digital content whilst keeping my personal information private?	Creating Media- Digital Painting (Information Technology) Can I use technology purposefully to create, organise, store, manipulate, and retrieve digital content?
Y2	Information Technology around Us (Digital Literacy)Can I show how to use information technology safely? -Can I recognise common use of information technology beyond the school?	Creating Media- Digital Photography (Information Technology)- Can I use technology purposefully to create, organise, store, manipulate, and retrieve digital content?	Data and information- Pictograms (Information Technology) Can I use technology purposefully to store and retrieve content?	Robot algorithms (Computer Science) Can I create and debug simple programs by logical reasoning?	Making music (Information Technology) Can I Use technology to create content?	Programming quizzes (Computer Science) Can I Predict the outcome of a program by understanding how algorithms are used and that programs execute by following precise and unambiguous instructions?
Y3	Computing systems and networks – connecting computers (Computer Science) Can I understand the digital devices, inputs, processes and outputs, compare digital and non-digital devices, networks?	Creating media – animation (Information Technology) Can I use a variety of software to accomplish the given goals?	Creating media – desktop publishing (Information Technology) Can I use a variety of software to accomplish given goals?	Data and information – branching data bases (Information Technology)  Can I use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including online safety?	Programming A – sequencing in music (Computer science) Can I write programs and use sequence in programs to accomplish specific goals?	Programming B – events and actions (Computer Science) Can I consolidate prior learning that are related to sequencing?
Y4	Computer systems and networks – the internet- (Digital literacy) (Computer Science) Can I understand how computer networks can provide multiple services, such as the World Wide Web?	Creating media – photo editing (Information technology) Can I select a variety of software to accomplish given goals: including: to record and edit audio; and to edit images?	Creating media – audio editing (Information technology) Can I select a variety of software to accomplish given goals to record and audio edit?	Programming A- Repetition in shapes (Computer science) Can I design, create, debug and use repetition and loops programs to accomplish specific goals?	Data and information- data logging (Information technology)  Can I understand data and how it can be analysed, collected, evaluated and presented over time to answer questions?	Programming B- Repetition in games (Computer science) Can I design, create, debug and use repetition and loops programs to accomplish specific goals?
Y5	Describing how computer networks work (Computer science)  Can I understand computer networks, including the internet and appreciate how search results are ranked?	Creating media- Creating vector drawings (Information technology)- Can I begin to combine a variety of software to accomplish given goals?	Data and information- Flat-file databases (Information technology) Can I analyse data, evaluate data and begin to design and create systems?	Programming A- Working with variables and using selection in quizzes (Computer science) Can I solve problems by decomposing them into smaller parts, using selection in programs and work with variables?	Creating Media- Video editing (Information technology) Can I begin to combine a variety of software to accomplish given goals?	Programming B- Using logical reasoning and selection in physical computing (Computer science) Can I use logical reasoning to explain how some simple algorithms work and how to detect and correct errors in algorithms?
Y6	Data and information- Analysing data and information using spreadsheets.  (Information technology) -  Can I confidently analyse data, competently evaluate data, I design, create, debug and use repetition and loops programs to accomplish specific goals?	Creating media- Creating a web page using appropriate software. (Information technology) (Digital literacy) Can I combine a variety of software to accomplish given goals?	Programming A – using variables to create a game. (Computer science) Can I solve problems by decomposing them into smaller parts, independently use selection in programs and work with variables with increasing accuracy?	Creating media- 3D modelling (Information technology) Can I combine a variety of software to accomplish given goals?	Computing systems and networks – understanding how we communicate (including social media safety).  (Computer science)  Can I describe and explain how computer networks work, including the internet and ranking the search results?	Programming B – using sensing to create a product. (Computer science) Can I use logical reasoning to explain how some simple algorithms work and correct errors?