St. Peter's CE Primary and Nursery School
Computing Curriculum Progression

`	EYFS		KS1		KS2			
	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science – Substantive Knowledge	To know how to operate simple equipment.		I know how to combine 'forwards' and 'backwards' commands to make a sequence. I know how to plan a simple program. I know how to find more than one solution to a problem.	I know what happens when we change the order of instructions. I know that programming projects can have code and artwork.	I know that commands have an outcome. I know that a program has a start. I know that a sequence of commands can have an order.	I know that accuracy in programming is important. I know what 'repeat' means. I know how to decompose a task into small steps.	I know that a loop can stop when a condition is met. I know that a loop can be used to repeatedly check whether a condition has been met.	I know that a 'variable' as something that is changeable. I know why a variable is used in a program. I know how to improve a game by using variables.
Computer Science - Disciplinary Knowledge and Skills	I can show an interest in real objects that involve technology. I can show skill in making toys work by pressing parts to achieve effects such as sound, light, movement or the showing of images.		I can explain what a given command will do. I can act out a given word. I can combine four direction commands to make sequences.	I can describe a series of instructions as a sequence. I can use logical reasoning to predict the outcome of a program. I can design an algorithm. I can create and debug a program that I have written.	I can explore a new programming environment. I can change the appearance of my project. I can create a project from a task description.	I can create a program in a text-based language. I can modify a count-controlled loop to produce a given outcome. I can create a program that uses count-controlled loops to produce a given outcome.	I can control a simple circuit connected to a computer. I can write a program that includes count-controlled loops. I can design a physical project that includes selection. I can create a program that controls a physical computing project.	I can design a project that builds on a given example. I can use my design to create a project. I can evaluate my project.
Information Technology - Substantive Knowledge			I know how to use the shape tool and the line tools. I know how to use a computer on my own to paint a picture. I know how to use a mouse in different ways. I know how to use a keyboard to type on a computer.	I know how to explain how information technology helps us. I know how to use information technology safely. I know that we can count and compare objects using tally charts. I know that objects can be represented as pictures. I know that people can be described by attributes.	I know how to identify input and output devices. I know how digital devices can change the way that we work. I know how digital devices can be connected. I know how text and images convey information. I know that text and layout can be edited. I know how different layouts can suit different purposes.	I know how to use a digital device to collect data automatically. I know that a data logger collects 'data points' from sensors over time. I know how a computer can help us analyse data. I know how to use data from sensors to answer questions. I know how networked devices make up the internet. I know how content can be added and accessed on the World Wide Web (WWW).	I know how you can answer questions by grouping and then sorting data. I know that tools can be used to select specific data. I know that computer programs can be used to compare data visually. I know that computers can be connected together to form systems. I know the role of computer systems in our lives. I know how to use a search engine.	I know how data is transferred across the internet. I know how sharing information online can help people to work together. I know how we communicate using technology. I know how to plan the features of a web page. I know the need for a navigation path.

St. Peter's CE Primary and Nursery School
Computing Curriculum Progression

			I know that we can present information using a computer.		I know how the content of the WWW is created by people.	I know why the order of results is important, and to whom.	
Information Technology – Disciplinary Knowledge and Skills	I can interact with a computer or tablet to make something happen successfully. I can interact with age-appropriate computer software.	I can describe what different freehand tools do. I can make careful choices when painting a digital picture. I can explain why I chose the tools I used. I can compare painting a picture on a computer and on paper. I can identify technology. I can identify a computer and its main parts. I can use the keyboard to edit text. I can create rules for using technology responsibly.	I can recognise the uses and features of information technology. I can identify the uses of information technology in the school. I can identify information technology beyond school. I can recognise that choices are made when using information technology. I can create a pictogram. I can select objects by attribute and make comparisons.	I can explain how digital devices function. I can explain how a computer network can be used to share information. I can recognise the physical components of a network. I can choose appropriate page settings. I can add content to a desktop publishing publication. I can consider the benefits of desktop publishing.	I can explain that data gathered over time can be used to answer questions. I can identify the data needed to answer questions. I can describe how networks physically connect to other networks. I can outline how websites can be shared via the World Wide Web (WWW). I can evaluate the consequences of unreliable content.	I can use a form to record information. I can compare paper and computer-based databases. I can use a real-world database to answer questions. I can describe how search engines select results. I can explain how search results are ranked.	I can explain the importance of internet addresses. I can evaluate different ways of working together online. I can evaluate different methods of online communication. I can an existing website and consider its structure. I can consider the ownership and use of images (copyright). I can recognise the need to preview pages. I can recognise the implications of linking to content owned by other people.
Digital Literacy (Includes E-Safety) – Substantive Knowledge		I know that the work I create belongs to me.	I know the people I can trust and can share my personal information; I can explain why I can trust them.	When searching on the internet for content to use, I know why I need to consider who owns it and whether I have the right to reuse it.			I know why copying someone else's work from the internet without permission can cause problems.

St. Peter's CE Primary and Nursery School
Computing Curriculum Progression

Digital Literacy (Includes E-Safety – Education for a Connected World links) – Disciplinary Knowledge and Skills	I can talk to an adult about what I have done on a computer and start to know that I have to be careful with devices so that they do not break. [some students will know that they need to log on to some devices to make them work] I can recognise that a range of technology is used in places such as homes and schools. I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. I can begin to follow the school's safer internet rules.	I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can name my work so that others know it belongs to me.	I can identify rules that help keep us safe and healthy in and beyond the home when using technology and I can give some simple examples. I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location) I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school)	I can use key phrases in search engines. I can use search technologies effectively. I can demonstrate the use of search tools to find and access online content which can be reused by others.	I can analyse information to make a judgement about probable accuracy, and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. I can explain what is meant by fake news, e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't. I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, or influencers). I can describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.	I am aware that a person's online activity, history or profile (their 'digital personality') will affect the type of information returned to them in a search or on a social media feed, and how this may be intended to influence their beliefs, actions and choices. I can explain how search engine rankings are returned and can explain how they can be influenced (e.g. commerce, sponsored results)	I can describe and assess the benefits and the potential risks of sharing information online. I can assess and justify when it is acceptable to use the work of others. I can give examples of content that is permitted to be reused. I can use the internet with adult support to communicate with people I know.
KEY Vocabulary	Instruction, move, touch, press, start, stop, turn, careful, safe.	forwards, backwards, command, sequence, mouse, keyboard, freehand tools	sequence, algorithm, outcome, debug, attribute, personal	outcomes, input, output, program, device, command, sequence	repeat, modify, count-controlled loop, data, analyse, content, sensor, fake news	condition, selection, circuit, connected, system, search engine, digital personality	variable, design, communicate, navigation path, permission, ownership, copyright, website
Visits and Visitors	Regular Richard Smith Workshops www.amazingict.co.uk						