UKS2	Computing Systems and Networks	Creating Media	Data and Information	Programming
Year 6	➢ Know how search engines work and what 'ranking' is when related to search engines. ➢ Use advanced searches including the use of operators. ➢ Know how different computer networks work, including the roles of the components and the opportunities and benefits that they offer for communication and collaboration. ➢ Understand the difference between the internet and internet services.	➢ Independently select, use and combine a wide range of software on a variety of devices. ➢ Design and create a range of digital assets such as programs, systems and multimedia content for a defined purpose and audience. ➢ Use strategies to verify and evaluate the reliability and accuracy of information on the internet and understand what copy right and plagiarism is and how it relates to their work.	➢ Independently select, use and combine a wide range of software on a variety of devices. ➢ Create spreadsheet models to investigate real life problems, using their knowledge to make predictions. ➢ Design and create a range of digital assets such as programs, systems and multimedia content for a defined purpose and audience.	➢ Design and create more complex programs using sequence, repetition, selection and variables appropriately. ➢ Develop their computational thinking and demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs. ➢ Be confident in their knowledge of inputs and outputs and plan and write programs to solve tasks to control external devices (such as sensors and motors). ➢ Independently select, use and combine a wide range of software on a variety of devices.
	➢ Be competent users of technology using it safely, respectfully and responsibly.	➢ Know about digital footprints and 'strong' passwords.	➢ Demonstrate that they can identify the risks involved with content and contact and know a wide range of reporting concerns.	➢ Understand what acceptable and unacceptable online behaviour is.
Year 5	➢ Have an understanding of how a computer network works and the opportunities that it offers for communication and collaboration. ➢ Select, use and combine a range of multimedia content for a defined purpose.	➢ Select, use and combine a range of software and use wider range of devices to create a variety of digital assets: **multimedia** & **system**	➢ Select, use and combine a range of software and use wider range of digital devices to create a variety of digital assets: **databases** ➢ Understand how search engines work. ➢ Understand about the use of operators in searching and continue to develop their effective search techniques by using Boolean operators in their searches.	➢ Design and write programs using sequence, repetition and selection. ➢ Further develop their computational thinking showing they can plan and decompose tasks; explain how the algorithms they write work and correct errors in their programs. ➢ Plan and write programs to control external devices (motors) and explain about the inputs and outputs used. ➢ Develop greater understanding of how to use selection and repetition in more complex programs.
	➢ Use technology safely, respectfully and responsibly. ➢ Develop an understanding of digital footprints.	➢ Continue to develop skills to identify risks involved with contact and content.	➢ Know a range of ways of reporting concerns about content and contact involving the internet and other communication technologies.	➢ Understand what acceptable and unacceptable online behaviour is.

LKS2		Computing Systems and Networks	Creating Media	Data and Information	Programming
Year 4		➢ Understand the difference between the internet and the World Wide Web. ➢ Start to develop an awareness of copyright. ➢ Start to develop strategies to verify the reliability and accuracy of information on the internet.	➢ Use and combine a variety of software and devices with increasing independence to create a range of digital assets: **multimedia content.** ➢ Develop their understanding of inputs (**microphone**) and outputs (**speakers**). ➢ Have a simple understanding of how search engines work. ➢ Understand how Boolean operators can change searches and select appropriate information for a task.	➢ Develop their understanding of inputs (**data-logger, sensors, microphone**) and outputs (**speakers, monitors**) ➢ Use and combine a variety of software and devices with increasing independence to create a range of digital assets: **databases**.	➢ Design and write more complex algorithms and programs using sequence and repetition. ➢ Further develop their computational thinking to help debug their programs and design and solve problems and tasks.
		➢ Use technology respectfully, responsibly and safely.	➢ Know how to keep their information and password secure.	➢ Know different ways of reporting concerns about content and contact involving the internet and other communication technologies.	➢ Have a greater understanding of what is acceptable and unacceptable online behaviour.
Year 3		➢ Have knowledge and experience of using a range of different inputs, processes and outputs. ➢ Describe some of the components of a computer network and some of the ways in which computer networks can be used.	➢ Use a variety of software and devices to create digital assets: **Stop-Frame Animation** & **Desktop Publishing** ➢ Develop search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions.	➢ Use a variety of software and devices to create digital asset: **database.** ➢ Use more complex simulations and understand the effects of changing variables.	➢ Plan and write algorithms and programs using sequence. ➢ Further develop their computational thinking strategies to solve problems and errors in their algorithms and programs. ➢ Use a variety of software and devices to create digital asset: **Piano (representation)**.
		➢ Use technology safely and respectfully. ➢ Have an understanding of how to keep information secure.	➢ Realise the importance of reporting any concerns they have using the internet and other communications technologies. ➢ Know some ways in which they can report concerns.	➢ Develop an understanding of what is acceptable and unacceptable online behaviour.	➢ Realise that not all information on the internet is trustworthy and there is a need to verify its reliability.

KS1	Computing Systems and Networks	Creating Media	Data and Information	Programming
Year 2	➢ Develop their knowledge of technology used in everyday life in a range of situations and be able to discuss ideas. ➢ Use technology with purpose to create ➢ Begin to understand the importance of computers and the internet to communicate.	➢ Use technology with purpose to create, store organise, retrieve and manipulate digital content. ➢ Learn to make a range of digital assets: **Digital Photography** & **Audio File**. ➢ Begin to understand that not everything on the internet is true.	➢ Use technology with purpose to create and manipulate digital content. ➢ Learn to make a range of simple digital assets: **Pictograms**.	➢ Use algorithms and know that they can be implemented as programs on devices. ➢ Know what debugging is and find errors in their programs. ➢ Understand that programs execute by following a precise set of instructions. ➢ Create simple programs and further develop their strategies and logical thinking to find bugs. ➢ Predict outcomes in their algorithms and programs.
	➢ Know how to use technology responsibly. ➢ Know how, and who, to report any concerns to.	➢ Navigate the web and carry out simple searches using suitable search engines.	➢ Recognise situations using technology and the internet involving content and contact that are not safe.	➢ Know where, and who, to go to for help.
Year 1	➢ Recognise uses of information technology beyond school. ➢ Use technology with support to create, store and retrieve digital content: **text** & **images**.	➢ Use technology with support to create, store and retrieve digital content: **text** & **images**. ➢ Use a simple search to find information or files.	➢ Use technology with support to create, store and retrieve digital content: **Grouping data**.	➢ Understand what algorithms are and develop strategies to help find bugs in them. ➢ Make very simple programs.
	➢ Understand the rules to using the schools technology. ➢ Develop an understanding of how to keep their personal information private.	➢ Understand the responsibilities with using school's technology.	➢ Begin to show understanding of using technology safely and respectfully.	➢ Begin to understand where to go for help when they have concerns.

Reception	Understanding the World	Literacy	Physical Development	Communication and Language
	➢ Role play areas to simulate use of technology beyond school/home. ➢ Identify uses of technology within the classroom ➢ Remote-control devices, walkie-talkies. ➢ Use devices for a purpose.	➢ Bee Bots (or other programmable floor bots) to develop language. ➢ Guide floor bots to	➢ Experience input devices such as a mouse and keyboard to develop motor skills.	➢ Give instructions for making something (e.g. a sandwich making robot). ➢ Instructions for use of technology and using apps and programs.
	Personal, social and emotional development	**Expressive arts and design**	**Mathematics**	
	➢ Listen to and record stories. ➢ Record pupils' feelings and discussions. ➢ Appropriate use of technology.	➢ Create pieces of digital media through paint programs ➢ Producing mats for Bee Bots. ➢	➢ Program and control floor bots (direction). ➢ Creating pictograms.	