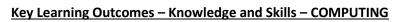|	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Knowledge and skills	Children recognise that a range of technology is used in places such as homes and schools. • To find out about and identify the uses of everyday technology and use information and communication technology and programmable toys to support their learning. • To explore and respond appropriately to musical toys and devices that record sound. • Use a digital camera (both real and in role play) • Begin to understand that all kinds of ICT tools are used for different modes of communication • To begin to understand that messages can be sent electronically over distances and that people can reply to them. • Be aware that digital devices (such as metal detectors, thermometers and microphones) can be used for a range of purposes.	**Understand what algorithms are; how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs** • Learn how to program e.g through a beebot to navigate increasingly complex routes. • Begin to use programming skills to create a 3D environment e.g through Kodu. • Begin to use simple graphical programming skills to navigate around the screen on programmes such as 'Scratch'. • To begin to explore programmes which enable children to make a simple animation e.g through Puppet Pals. **Recognise common uses of information technology beyond school** • To use digital equipment e.g cameras or microphones for a purpose.	**Understand what algorithms are; how they are implemented as programs on digital devices and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs** • Program e.g beebots to navigate increasingly complex routes and debug their instructions when the beebot does not reach the intended destination. • Use simple graphical programming skills to navigate around the screen on programmes such as 'Scratch'. • Use programming skills to create a 3D environment e.g Kodu. • To make a simple animation e.g Puppet Pals. **Recognise common uses of information technology beyond school** • To use digital equipment e.g cameras, tablets, play stations, mobile phones or microphones. **Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content on the internet or other online technologies** • To understand about some of the uses of the internet. • To understand how to keep safe on the internet.	**Design, write and debug programs that accomplish specific goals. Solve problems by decomposing them in smaller parts. Use sequence, selection and repetition in programs. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs recognise common uses of information technology beyond school** • To use graphical programming language to draw regular 2D shapes. • To explore writing a simple algorithm e.g. through Scratch. • To explore sequencing of instructions e.g through animation on Scratch or timings on PowerPoint. • To explore simple programmes to control onscreen icon e. Flowgo. **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact** • Explore how to make good passwords for their accounts. • To begin to learn about the implications for the information that they share online and how websites might use that information without their knowledge. • To search for information • To use search engines, learning how to use effective key words. • To learn to collaborate electronically by blogging/vlogging, mailing or working on shared document. •	**Design, write and debug programs that accomplish specific goals. Solve problems by decomposing them in smaller parts. Use sequence, selection and repetition in programs. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs recognise common uses of information technology beyond school** • To use graphical programming language to draw regular 2D shapes. Pupils to add loops or procedures to create a repeating pattern. • To sequence instructions e.g through animation on Scratch or timings on PowerPoint. • Create a simple game using algorithms e.g. through Kodu or Scratch. • To create simple programmes to control onscreen icon e. Flowgo.	**Design, write and debug programs that accomplish specific goals; including controlling or simulating physical systems and solving problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** • To develop writing algorithms to create a computer game through programmes such as Scratch. **To understand computer networks including the internet; how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration** • To collaborate electronically by blogging/vlogging, mailing or working on shared document. This can be extended to working with other schools. • To develop skills for evaluating websites, online information and advertising by rating the trustworthiness and usefulness of websites.	**Design, write and debug programs that accomplish specific goals; including controlling or simulating physical systems and solving problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** • To write a simple algorithm and then use a flowcharting software to create a simple program to control an onscreen icon. • Explain how their program works. **To understand computer networks including the internet; how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration** • To understand that connected devices exchange packets of data and this can convey a range of information from a text to a video call. • To conduct searches through search engines using effective keywords, directories and subject categories. Analyse the usefulness and relevancy of the search.

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Knowledge and skills	They select and use technology for particular purposes. • To begin to develop mouse control through moving, clicking, dragging etc. • Begin to use a keyboard (with support) and notice the effect on screen. • Use the tools in a simple painting program (e.g brush, fill tool, colour selection, stamp, text) on a whiteboard, tablet and a desktop computer. • Play with and respond appropriately to musical toys and devices that record sound. • With support and supervision use a simple search engine to find information (pictures perhaps) on the internet. • Program a simple floor robot (Bee Bot / Roamer) to carry out a short sequence of steps (planning ahead) • Complete a simple program on a computer e.g. Paint/game **E-Safety** • To begin to explore some of the uses of the internet. • To begin to learn and understand how to keep safe on the internet.	Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content on the internet or other online technologies • To learn about some of the uses of the internet. • To learn and understand how to keep safe on the internet. **Use technology purposefully to create, organise, store, manipulate and retrieve digital content** • To create a simple digital painting. • To begin develop the skill of using a basic word processing package. • To explore PowerPoint, make a simple presentation. To begin to explore, create and use a pictogram.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content • To develop the skill of using a basic word processing package. • To make a simple presentation. • To create a simple digital painting using a range of features on the programme e.g. changing the colour, different style lines etc. To explore creating and using a pictogram.	Select, 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 collecting, analysing, evaluating and presenting data and information • To explore software to create an e-book, brochure or poster. • To create and use images to enhance their work. To develop their skill of creating a storyboard and then create simple animation e.g. through Stop Motions' Animations	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact • To understand the implications for the information that they share online and how websites might use that information without their knowledge. • To understand how they are responsible for themselves and others online to create a safe and comfortable environment. • To understand that that the internet is a public space and they develop the skills to protect their privacy. • To create good passwords for their accounts. • To search and sort information. • To learn how to conduct searches that provide them with the most helpful and relevant information. **Select, 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 collecting, analysing, evaluating and presenting data and information** • To use different software to create an e-book, brochure or poster. • To take, adapt or create images to enhance their work. • To record and edit media to create a short sequence.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact • To compare and contrast online friends and real life, face to face friends. • Understand how to respond if an online friend asks them a personal question. • Begin to understand what it means to be good digital citizens they interact with others online by understanding how to prevent and respond to cyberbullying. **Select, 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 collecting, analysing, evaluating and presenting data and information** • To conduct searches that provide them with the most helpful and relevant information. • To use different software to create an e-book, brochure or poster, incorporating a range of media. • To learn how to take, adapt or create images to enhance or further develop their work. • To create a storyboard with animation. To search, sort and graph information.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact • Begin to explore the nature of online audiences and permanency of information online. • Begin to understand the significance of published information and personal information. • To understand what it means to be a good digital citizen when they interact with others online by understanding how to prevent and respond to cyberbullying. **Select, 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 collecting, analysing, evaluating and presenting data and information** • To create a computer game, using a graphical language such as Scratch or Kodu. • To write and deliver a presentation, incorporating a range of media. • To create a storyboard with animation and to edit the final product using video editing. • To learn how to use a spreadsheet to sort, graph information and data software. To learn how to take, adapt or create images to enhance or further develop their work and incorporate it into a wider project.