What is a Computer? Key Skills						
EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
- Use different digital devices. - Recognise that you can access content on a digital device. - Use a mouse, touchscreen or appropriate access device to target and select options on screen. - Recognise a selection of digital devices. - Recognise the basic parts of a computer, e.g. mouse, screen, keyboard. - Select a digital device to fulfil a specific task, e.g. to take a photo.	- Recognise a range of digital devices. - Select a digital device to fulfil a specific task, e.g. to take a photo. - Name a range of digital devices, e.g. laptop, phone, games console. - Log on to the school computer / unlock the school tablet with support. - Identify the basic parts of a computer, e.g. mouse, keyboard, screen. - Use a suitable access device (mouse, keyboard, touchscreen, switch) to access and control an activity on a computer. - Open key applications independently. - Save and open files with support. - Add an image to a document from a given folder/source with support.	- Recognise what a computer is (input > process > output). - Recognise that a range of digital devices contain computers, e.g. phone, games console, smart speaker. - Explain what the basic parts of a computer are used for. - Identify and use input devices, e.g. mouse, keyboard; and output devices, e.g. speakers, screen. - Open key applications independently. - Save and open files to/from a given folder. - Add an image to a document from a given folder/source. - Resize an image in a document. - Highlight text and use arrow keys. - Capture media independently (e.g. take photos, record audio).	- Describe what a computer is (input > process > output). - Explain the difference between input and output devices on a computer. - Know where to save and open files (e.g. in shared folder). - Save files with appropriate names. - Use a keyboard effectively to type in text. - Use left-, right- and double-click on the mouse. - Add an image to a document from the internet. - Resize and move an image in a document. - Use a search engine to find simple information. - Recognise that school computers are connected.	- Recognise that you can organise files using folders. - Explain what a good file name would look like. - Delete and move files. - Use key parts of a keyboard effectively, e.g. shift, arrow keys, delete). - Know how to copy and paste text or images in a document. - Crop an image and apply simple filters. - Use a search engine to find specific information. - Recognise that school computers are connected together on a network.	- Type using fingers on both hands. - Use common keyboard shortcuts, e.g. ctrl C (copy), ctrl V (paste). - Explain what makes a strong password. - Use folders to organise files. - Know how to mute and unmute audio on a computer or tablet. - Recognise that there is more than one search engine, and they may produce different results. - Use a search engine effectively to find information and images. - Know how to search for an application on a computer/tablet.	- Type efficiently using both hands. - Use a range of keyboard shortcuts. - Recognise that different devices may have different operating systems. - Organise files effectively using folders and files names. - Use the advanced search tools when using a search engine to find specific information and images. - Explain the basic function of an operating system. - Recognise common file types and extensions e.g. jpeg, png, doc, wav - Recognise a range of Internet services, e.g. email, VOIP (e.g. Skype, FaceTime), World Wide Web, and what they do.

Digital Literacy						
EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
- Are aware that some online content is inappropriate. - Are aware that information can be public or private. - Know to tell an appropriate adult if they see something on the computer that upsets them.	- Use a simple password when logging on, where relevant. - Explain why we use passwords. - Recognise examples of personal information e.g. name, image. - Know who to tell if concerned about content or contact online. - Recognise that digital content belongs to the person who created it. - Talk about their use of technology at home.	- Remember a simple password to log onto the computer or a website. - Identify rules for acceptable use of technology in school. - Recognise what personal information is and the need to keep it private. - Recognise that spending a lot of time in front of a screen can be unhealthy. - Recognise that some information found online may not be true.	- Explain why we need to keep our password safe. - Recognise that digital content belongs to the person who first created it, but we can give permission for others to use it. - Recognise when to share personal information and when not to. - Recognise that some people lie about who they are online. - Are aware that games and films have age ratings.	- Remember and use an individual password. - Recognise what kinds of websites are trustworthy sources of information. - Recognise the benefits and risks of different apps and websites. - Recognise that the media can portray groups of people differently. - Can rate a game or film they have made and explain their rating.	- Know where to find copyright free images and audio, and why this is important. - Critically evaluate websites for reliability of information and authenticity. - Demonstrate responsible use of a online services, and know a range of ways to report concerns.	- Explain what makes a strong password and why this is important at school and in the wider world. - Explain how algorithms are used to track online activities with a view to targeting advertising and information. - Know that there are laws around the purchase of games; the production, sending and storage of images; what is written online; and around online gambling.

Presenting Information & Multimedia						
EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
- Use technology to explore and access digital content. - Operate a digital device with support to fulfil a task. - Create simple digital content, e.g. digital art. - Choose media to convey information, e.g. image for a poster.	- Create digital content, e.g. digital art. - Choose media from a selection (e.g. images, video, sound) to present information on a topic. - Recognise that you can find out information from a website. - Recognise that you can edit digital content to change its appearance. - Select basic tools/options to change the appearance of digital content, e.g. filter on an image / font / size of paintbrush. - Combine media with support to present information, e.g. text and images.	- Create simple digital content for a purpose, e.g. digital art. - Recognise that we can use technology to record and playback audio or take and view photographs. - Apply edits to digital content to achieve a particular effect, e.g. emphasise part of a text. - Present ideas and information by combining media, e.g. text and images. - Explain that you can search for information on the internet. - Plan out digital content, e.g. a simple sketch or storyboard. - Identify the common features of digital content, e.g. title, images. - Recognise that we can use different types of media to convey information, e.g. text, image, audio, video.	- Present ideas and information by combining media independently, e.g. text and images. - Design and create simple digital content for a purpose/audience, e.g. poster. - Edit digital content to improve it, e.g. resize text. - Identify the features of a good piece of digital content. - Explain why we use technology to create digital content. - Recognise why we use different types of media to convey information, e.g. text, image, audio, video.	- Collect, organise and present information using a range of media. - Design and create digital content for a specific purpose, e.g. poster, animation. - Edit digital content to improve it according to feedback. - Identify the features of a good piece of digital content and apply these in own design. - Explain the benefits of using technology to present information. - Know where to find copyright free content, e.g. creative commons images. - Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365, if available.	- Identify and use appropriate hardware and software to fulfil a specific task. - Remix and edit a range of existing and their own media to create content. - Consider the audience when designing and creating digital content. - Recognise the benefits of using technology to collaborate with others - Identify success criteria for creating digital content for a given purpose and audience. - Evaluate their own content against success criteria and make improvements accordingly.	- Select, combine and remix a range of media to create original content. - Consider all steps of the design process when creating content (e.g. identify problem, plan, create, evaluate, share.) - Identify the most effective tools to present information for a specific purpose. - Explain the benefits of using technology to collaborate with others. - Evaluate existing digital content in terms of effectiveness and design.

Data						
EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
- Access content in a range of formats, e.g. image, video, audio. - Answer basic questions about information displayed in images e.g. more or less.	- Recognise different forms of digital content, i.e. text, image, video and audio. - Collect simple data (e.g. likes/dislikes) on a topic. - Present simple data using images, e.g. number of animals. - Recognise charts and pictograms and why we use them. - Explain information shown in a simple chart or pictogram. - Modify simple charts/pictograms, e.g. add title, item or labels. - Identify the key features of a chart or pictogram. - Collect data on a topic (eye colour, pets etc.) and present in a pictogram or chart.	- Identify different forms of digital content, i.e. text, image, video and audio. - Recognise charts, pictograms and branching databases, and why we use them. - Identify an object using a branching database - Recognise an error in a branching database. - Create a branching database using pre-prepared images and questions - Identify the features of a good question in a branching database. - Independently plan out and create a branching database. - Evaluate a given branching database and suggest improvements.	- Recognise charts, pictograms and databases, and why we use them. - Present information using a suitable chart - Explore a record card database to find out information. - Use filters in a database to find out specific information. - Name the key parts of a database, e.g. record, field, search. - Answer questions about information in a database. - Name some benefits of using a computer to create charts and databases. - Recognise that search engines store information in databases.	- Draw conclusions from information stored in a database, chart or table. - Design a questionnaire and collect a range of data on a theme. - Choose appropriate formats to present data to convey information. - Recognise that school computers are connected together on a network. - Recognise that the Internet is made up of computers and other digital devices connected together all around the world. - Know that you use a web browser to access information stored on the internet. - Appreciate that you need to use specific software to work with video, images, audio etc.	- Explain the difference between data and information. - Appreciate that different programs work with different types of data, e.g. text, number, video. - Explain the difference between the Internet and the World Wide Web. - Know the difference between a search engine and a web browser. - Explain the basics of how search engines work, and that different search engines may give different results. - Perform complex searches for information using advanced settings in search engines. - Recognise the benefits and risks of sharing data online.	- Recognise what a spreadsheet is and what it is used for. - Explain the difference between physical, mobile and wireless networks. - Use simple formulae in a spreadsheet to find out information from a set of data. - Collect data for a purpose and plan out a spreadsheet to present it effectively, using relevant formulae. - Produce graphs from data in a spreadsheet to answer a question. - Analyse and evaluate data and information in a spreadsheet, chart or database. - Recognise that poor quality data leads to unreliable results.

Programming & Algorithms						
EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
- Explore technology. - Repeat an action with technology to trigger a specific outcome. - Recognise the success or failure of an action. - Follow simple instructions to control a digital device. - Recognise that we control computers. - Input a short sequence of instructions to control a device.	- Recognise that computers don't have a brain. - Explain that we control computers by giving them instructions. - Create a simple program e.g. to control a floor robot. - Create a simple algorithm. - Predict the outcome of a simple algorithm or program. - Explain what an algorithm is – a sequence of instructions to make something happen. - Recognise that the order of instructions in an algorithm is important. - Debug an error in a simple algorithm or program e.g. for a floor robot.	- Explain that computers have no intelligence and we have to program them to do things. - Create a program with multiple steps e.g. to control a floor robot. - Predict the outcome of an algorithm or program with multiple steps. - Recognise that the instructions in an algorithm need to be clear and unambiguous. - Identify and correct errors in a given algorithm or program, and recognise the term debugging. - Explain what an algorithm is, and that when inputted on a computer it is called a program. - Plan out a program by creating an algorithm, and evaluate its success.	- Predict the outcome of a block or text based program (Scratch/Logo). - Successfully modify an existing program, e.g. change background, number of times things happen. - Identify repeated steps in a program or algorithm. - Create examples of algorithms containing count-controlled loops. - Use a count-controlled loop (e.g. repeat 3 times) to make a program more efficient. - Recognise that we can create an algorithm to help plan out a program. - Recognise a forever loop in a program or algorithm. - Use a forever loop in a program to keep something happening. - Identify errors in a block or text-based program and correct them. - Recognise that different	- Create a program using a range of events/inputs to control what happens. - Recognise that we can decompose a problem into smaller parts to help solve it. - Explain when to use forever loops and count-controlled loops, and use them in programs. - Recognise selection in a program or algorithm. - Use selection in algorithms in programs to alter what happens when a condition changes, e.g. if…then… - Design a program for a purpose. Decompose into parts and create an algorithm for each one. - Recognise common mistakes in programs and how to correct them.	- Name a range of sensors in physical systems. - Recognise that different solutions may exist for the same problem. - Predict what will happen in a program or algorithm when the input changes (e.g. sensor, data or event). - Use two-way selection in programs and algorithms, i.e. if…then…else… - Recognise variables in a program and what they do. - Create programs including repeat until loops. - Create and use simple variables, e.g. to keep score. - Evaluate a program and make improvements to the code or design accordingly. - Create an algorithm for a physical system containing a sensor.	- Design and program a physical computing system that uses sensors. - Recognise and use procedures (sub-routines) in programs. - Plan out a program in detail, including task, algorithm, code and execution level. - Explain common errors in programs and how to fix them. - Use nested selection statements in a program or algorithm effectively. - Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done". - Recognise key concepts (sequence, selection, repetition and variables) in a range of languages and contexts.

			inputs can be used to control a program.			