

Progression of Skills In Computing

	Year 1/2	Year 3/4	Year 5/6
Text and Multimedia	<ul style="list-style-type: none"> I can generate my own work, (with help where appropriate with multimedia) combining text, graphics and sound. I can save and retrieve and edit my work. I can work with others and (with support) contribute to a digital class resource which includes text, graphics and sound. 	<ul style="list-style-type: none"> I can record and present information integrating a range of appropriate media combining text and graphics in printable form and sound and video for on-screen presentations which include hyperlinks. I can begin to show an awareness of the intended audience and seek feedback. 	<ul style="list-style-type: none"> My multimedia work shows restrained use of effects that help to convey meaning, rather than impress. <ul style="list-style-type: none"> - Arctic phenomena multimedia presentation. (Frozen Kingdom) - Theme Park promo trailer, video made by children and music created in Bandlab. (Scream Machine)
Digital Images (photos, paint, animation)	<ul style="list-style-type: none"> I can use a range of tools in a paint package/image manipulation software to create/modify a picture to communicate an idea. <ul style="list-style-type: none"> - Create a poster promoting messy play. (Muck, mess and mixtures) I can create a simple animation to tell a story. – Tell a story about an unhappy child who became happy after playing in a muddy puddle. Take photographs of your character in different poses. Once the images are put together in sequence, they tell the story. (Muck, mess and mixtures) 	<ul style="list-style-type: none"> I can manipulate digital images using a range of tools in appropriate software to convey a specific mood or idea. 	<ul style="list-style-type: none"> I can use images that I have sourced/captured/manipulated as part of a bigger project (e.g. presentation or document). <ul style="list-style-type: none"> - (Portal) images manipulated to create meaning. (Alchemy Island)
Sound and music (inc sound recorders)	<ul style="list-style-type: none"> I can compose music from icons (graphic score). Compose from a given graphic score and also compose from scratch and notate as a graphic score. I can produce a simple presentation incorporating sounds captured, or created. - Children record the sound of children playing (into GarageBand on iPads) and others have to guess the activity. 	<ul style="list-style-type: none"> I can create a simple podcast, selecting and importing already existing music and sound effects as well as recording my own. 	<ul style="list-style-type: none"> I can create and share more sophisticated podcasts and consider the effect that my podcasts will have on the audience. <ul style="list-style-type: none"> - Environmental podcast about melting ice caps. (Frozen Kingdom) - Music for a theme park ride. Voicing for a character in a theme park ride (Scream Machine)
Electronic Communication	<ul style="list-style-type: none"> I can work collaboratively by email/Teams to share and request information of another class or story character. 	<ul style="list-style-type: none"> I can begin to understand the need to abide by school e-safety rules. 	<ul style="list-style-type: none"> I can abide by the school rules for e-safety. <ul style="list-style-type: none"> - HTML Customised email presentation about e-safety.
Research and E Safety	<ul style="list-style-type: none"> I can use a search engine to find specific relevant information to use in a presentation for a topic. I can save and retrieve my work. I can explore information from a variety of sources (electronic, paper based, observations of the world around them, etc.). I can show an awareness of different forms of information. 	<ul style="list-style-type: none"> Using another curriculum area as a starting point, I can ask questions then use ICT sources to find answers, making use of search engines, an index, menu, hyperlinks as appropriate. I can use the information or resources I have found. I can talk about using ICT to find information/resources, noting any frustrations and showing an emerging understanding of internet safety. <ul style="list-style-type: none"> - Research food recipes (Scrumdiddlyumptious) - Email I can discuss email as a form of communication. - I can identify an email that I should not open. - I can write an email with an address and subject. - I know how to safely send an email. - I know how to safely receive an email. 	<ul style="list-style-type: none"> Independently and with due regard for safety, I can search the internet using a variety of techniques to find a range of information and resources on a specific topic. <ul style="list-style-type: none"> - Arctic Phenomena research for multimedia presentation. (Frozen Kingdom) - Theme Park research. Popular attractions/How animatronics works/Rollercoasters/Modelling and scaling up. (Scream Machine) I can use appropriate methods to validate information and check for bias and accuracy. I can repurpose and make appropriate use of selected resources for a given audience, acknowledging material used where appropriate.
Control (algorithms)	<ul style="list-style-type: none"> I can control simple everyday devices to make them produce different outcomes. – Create a downward slope using an object (such as a book). Drop a ball from the top and allow it to roll downwards. Create obstacles and different tilt angles to produce different outcomes in terms of the motion of the ball. 	<ul style="list-style-type: none"> I am able to type a short sequence of instructions and plan ahead when programming devices' on and off screens. <ul style="list-style-type: none"> - Recipe method/sequence in list. - Using Scratch programme: Choose food sprites to create a battle sequence between food types all trying to be the most scrumdiddlyumptious food type. 	<ul style="list-style-type: none"> I can independently create sequences of commands to control devices in response to sensing (i.e. use inputs as well as outputs). I can design, build, test, evaluate and modify the system; ensuring that it is fit for purpose. <ul style="list-style-type: none"> - Using Scratch programme: animal Frozen Kingdom, predator/prey hide and seek Loops/games. - Website coding (Information site for Arctic/Antarctic) Frozen Kingdom. - Theme park car game (track/sprite controlled by user) Scream Machine.

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Handling information (databases and graphs)	<ul style="list-style-type: none"> I can use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions. I can enter information into a simple branching database, database or word processor and use it to answer questions. I can save, retrieve and edit my work. 	<ul style="list-style-type: none"> I can use a simple database (where the structure of which has been set up for me) to enter and save information on a given subject. I can follow straightforward lines of enquiry to search my data for my own purposes. I can talk about my experiences of using ICT to process data compared with other methods. <ul style="list-style-type: none"> Food database showing items children would have in their fridge/freezer/cupboards at home. (Scrumdiddlyumptious) 	<ul style="list-style-type: none"> I can independently solve a problem by planning and carrying out data collection, by organising and analysing data involving complex searches using a database, and by drawing conclusions and presenting findings. <ul style="list-style-type: none"> Animal database for Frozen Kingdom Attendance and Staff database for Theme Park (Scream Machine) The need for accuracy is demonstrated and strategies for spotting implausible data are evident. Children should be able to talk about issues relating to data protection and the need for data security in the world at large (e.g. health/police databases).
Modelling and simulations (spreadsheets, adventure games and simulations)	<ul style="list-style-type: none"> I can play an adventure game and use a simple simulation, making choices and observing the results. My conversation shows I understand that computers are good at replicating real life events and allow a user to explore contexts that are otherwise not possible. 	<ul style="list-style-type: none"> I can use models and simulations to find things out and solve problems. I can recognise that simulations are useful in widening experience beyond the classroom. I can make simple use of a spreadsheet to store data and produce graphs. <ul style="list-style-type: none"> Using child's own food database (items they would have at home), produce a survey to find out which items other children also have at home. Display results as tables and graphs. (Scrumdiddlyumptious) 	<ul style="list-style-type: none"> I can set up and use my own spreadsheet which contains formulae to investigate mathematical models. I can ask "what if ..." questions and change variable in their model. <ul style="list-style-type: none"> Create 'what if' statements to for both the Frozen Kingdom predator/prey hide and seek game and theme park car game. I can understand the need for accuracy when creating formulae and check regularly for mistakes, by questioning results. I can relate my use of spreadsheets to model situations to the wider world.
Data logging (science and maths)		<ul style="list-style-type: none"> I can begin to use a data logger to sense physical data (sound, light, temperature). 	<ul style="list-style-type: none"> Children are able to identify their own opportunities for data logging and carry out their own experiments. <ul style="list-style-type: none"> Children sit in their garden for a period of time and listen to the sounds coming from around them. They could also list any wildlife they see during this time. Would the area they live in be a good place for a theme park to be situated? I can check and question results, am able to spot trends in data and identify when problems may have occurred.
Understanding Technologies (individual technologies)	<ul style="list-style-type: none"> I can show an awareness of a range of inputs to a computer (IWB, mouse touch screen, microphone, keyboard, etc). 	<ul style="list-style-type: none"> I can begin to show discernment in my use of computing devices and tools for a particular purpose and can explain why the choice was made. <ul style="list-style-type: none"> Make a class cookery video, setting up input levels on camera's microphone. Make simple editing cuts to the video. 	<ul style="list-style-type: none"> I can evaluate the tools available to me including any that are unfamiliar or new and use them to solve problems. I can demonstrate an awareness of the appropriateness of outcomes depending on choices regarding tools and devices.
Understanding Technologies (networks)	<ul style="list-style-type: none"> I can begin to show an awareness that computers can be linked to share resources 	<ul style="list-style-type: none"> I can show an understanding that a password is the key to accessing a personalised set of resources and files (e.g. My Documents). I can show an awareness of where passwords are critical in everyday use (e.g. parents accessing bank details). 	<ul style="list-style-type: none"> I can show an understanding of how filtering and monitoring tools affect the use of the school network and Internet and I can compare this with my experience of access outside school.
Understanding Technologies (the internet)	<ul style="list-style-type: none"> I can use websites and demonstrate an awareness of how to manage my journey when using them (e.g. using the back/forward button, hyperlinks). 	<ul style="list-style-type: none"> I can show an awareness that not all the resources/tools I use are resident on the device I am using. I can begin to show an understanding of URLs. 	<ul style="list-style-type: none"> I can use collaborative tools and e-mail, showing a sensitivity for this type of remote collaboration and communication. <ul style="list-style-type: none"> Web design, Bandlab, Google Docs, Zoom/Skype, Trello, blog (gaining followers through networking and sharing fans of other bloggers).