Broadwood Primary School
Computing – Progression Map

		Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Programming				Algorithms, programming		Create programmes			
		Begin to identify devices around school and home they can control. Use commands to move electronic toys. Use several commands to achieve and outcome I.e. microwave, till.	Playing and Exploring Move like a programmable robot following instructions e.g. 'up', 'down', 'left' and 'right'. Explore how characters (Red Riding Hood etc) might travel to a desired location using toys. Active Learning Put instructions into order e.g. practically move elements of a recipe or simple instructions. Program toys (BeeBot) to move across a grid. Creating and thinking critically Predict the outcome of a set of instructions. Matching symbols to simple grids and the	Understand what an algorithm is. Understands an algorithm is a set of precise instructions. Plan a simple algorithm. Test a simple algorithm that they planned. Identify a mistake in an algorithm. Plan, test and successfully run an algorithm on more than one device (e.g. Beebot and an app)	Understand algorithms are used to achieve specific goals. Understands an algorithm is a program used on a range of digital devices. Know what a bug is in a program. Identify and debug an error in an algorithm. Plan and create an algorithm to achieve specific goals. Design, test and successfully run an algorithm on a number of applications and devices. Use Logic to plan and predict the intended outcome of an algorithm.	Understand what a command and a sequence is. Read, design and write programs to achieve specific goals on a range of devices and applications. Plan and run a sequence of simple commands. Read, design, write and debug a program to simulate physical systems. Plan and run a sequence of simple commands to achieve a specific goal. Read, design, write and debug a program to achieve specific goals and to simulate physical systems. Use evaluation to identify and make attempts at improving their Program by	Understand what a repetition is. Read, design and write a program using repetition. Plan and run a program of simple commands incorporating repetition. Read, design, write and debug a program using repetition to control a simple circuit. Experiment and debug a program using repetition to improve on a simple electronic circuit. Experiment with another's code to improve a program incorporating repetition. Use decomposition to break down a task into smaller,	Understand what a variable and conditional is. Read, design and write a simple program using a variable and a conditional. Work collaboratively to plan and run a program incorporating a variable and conditional. Read, design, write and debug a program using a variable and a conditional. Experiment and debug a program using a variable and a conditional statement to improve the quality and simplicity. Create my own program to solve a problem, incorporating a variable and conditional. Use abstraction to tinker and debug their program to make it as simple and effective as possible.	Understand what an input and output is and how their used. Read, design and write a simple program to achieve a required output. Use different inputs (including sensors) to control a device or onscreen action. Read, design and write a program using a variable to achieve a required output. Use different inputs (including sensors) to control a device or onscreen action and predict what will happen (output). Experiment and debug a program using a variable and a selection statement to improve the quality and simplicity. Identify patterns in their program and use it to debug their program to make it as effective as possible.

		directions the trucks will take on the masking tape paths. (Figure 2.)			ensuring their sequence is as effective as possible.	more-manageable parts.		
Application – Using to solve real life problems			**Using programmes**			**Understand and use networks and software** **Word, publisher, excel, PowerPoint,**		
	Understand and use keyboard, mouse etc. in their play. Begin to sort, classify or group various objects progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then on-screen. Begin to use ICT to sort and sequence objects on a screen or interactive whiteboard. Produce simple pictograms with help.	Use the keyboard to enter letter strings (play writing) Begin to use the space bar to break letter strings into groups of letters Use the Back-Space key to delete. Use a word bank or word list to enter text e.g. to match with pictures. Complete practical sorting activities and discuss sorting criteria. Begin to develop simple classification	Use technology to create and present their ideas. Use the keyboard to enter text. Save information in a special place and retrieve it again. Talk about the different ways in which information can be shown. Use technology to collect information, including photos, video and sound. Sort	Use technology to organise and present their ideas in different ways. Use the keyboard on their device to add, delete and space text for others to read. Talk about an online tool that will help them to share their ideas with other people. Save and open files on the device they use. Talk about the different ways they can use technology to collect information e.g.	Create different effects with different technology tools. Combine a mixture of text, graphics and sound to share their ideas & learning. Use appropriate keyboard commands to amend text on their device, including making use of a spellchecker. Evaluate their work and improve its effectiveness. Use an appropriate tool to share their work online. Talk about the different ways data can be organised. Search a ready-made database to answer questions.	Use photos, video and sound to create an atmosphere when presenting to different audiences. Confidently explore new media to extend what they can achieve. Change the appearance of text to increase its effectiveness. Create, modify and present documents for a particular purpose. Use a keyboard confidently and make use of a spellchecker to write and review their work.	Use text, photo, sound and video editing tools to refine their work. Use the skills they have already developed to create content using unfamiliar technology. Select, use and combine the appropriate technology tools to create effects for impact. Select an appropriate online or offline tool to create and share ideas. Can review and improve their work and support others to improve their work. Use a spreadsheet and database to collect and record data. Present data in an appropriate way. Search a database using different	Talk about audience, atmosphere and structure when planning a particular outcome. Confidently identify the potential of unfamiliar technology to increase their creativity. Combine a range of media, recognising the contribution of each to achieve a particular outcome. Explain why they have selected a tool for a specific purpose. Can be digitally discerning when evaluating the effectiveness of their work and the work of others. Check the data they have collected for accuracy and plausibility. Interpret the data they collect.

		Skills.	different kinds of information and present it to others. Add information to a pictograph and talk about what they have found out.	a camera, microscope or sound recorder. Make and save a chart or graph using the data they collect. Talk about the data that is shown on their chart or graph.	Collect data to help them to answer a question. Add to a database. Explain whether a resource they are using is on the internet, the school network their own device.	Use an appropriate tool to share their work and collaborate online. Give constructive feedback to help peers improve and refine their own work. Organise data in different ways. Collect data and identify where it could be inaccurate. Plan, create and search a database to answer questions. Choose the best way to present data to their peers.	operators to refine their search. Talk about mistakes in data and suggest how it could be checked.	Present their data in an appropriate way. Interrogate a database.
Safety – Being responsible users – Education for a Connected World				Keeping safe		Identify responsible behaviour, know how to report concerns		
	Self-Image & Identity Recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do	**Self-Image & Identity** Recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who	**Self-Image & Identity** Recognise that there may be people online who could make me feel sad,	**Self-Image & Identity** Explain how other people's identity online can be different to their identity in real life.	**Self-Image & Identity** Explain what is meant by the term 'identity'. Explain how I can represent myself in	**Self-Image & Identity** Explain how my online identity can be different to the identity I present in 'real life'.	**Self-Image & Identity** Explain how identity online can be copied, modified or altered. Demonstrate responsible choices about my online	**Self-Image & Identity** Describe ways in which media can shape ideas about gender. Identify messages about gender roles and make judgements based on them.

something that makes me feel sad, embarrassed or upset. Explain how this could be either in real life or online. **Online Relationships** Recognise some ways in which the internet can be used to communicate. Give examples of how I (might) use technology to communicate with people I know. **Online Reputation** Identify ways that I can put information on the internet. **Online Bullying** Describe ways that some people can be unkind online. I can offer examples of how this can make others feel.	asks me to do something that makes me feel sad, embarrassed or upset. Explain how this could be either in real life or online. **Online Relationships** Recognise some ways in which the internet can be used to communicate. Give examples of how I (might) use technology to communicate with people I know. **Online Reputation** Identify ways that I can put information on the internet. **Online Bullying** Describe ways that some people can be unkind	embarrassed or upset. If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust. **Online Relationships** I can use the internet with adult support to communicate with people I know. Explain why it is important to be considerate and kind to people online. **Online Reputation** Recognise that information can stay online and could be copied.	Describe ways in which people might make themselves look different online. Give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help. **Online Relationships** I can use the internet to communicate with people I don't know well (e.g. email a penpal in another school/ country) Give examples of how I might use technology to communicate with others I don't know well.	different ways online. Explain ways in which and why I might change my identity depending on what I am doing online (e.g. gaming; using an avatar; social media). **Online Relationships** Describe ways people who have similar likes and interests can get together online. Give examples of technology- specific forms of communication (e.g. emojis, acronyms, text speak). Explain some risks of communicating online with others I don't know well. Explain why I should be careful who I trust online and what info I can trust them with.	Knowing this, I can describe the right decisions about how I interact with others and how others perceive me. **Online Relationships** Describe strategies for safe and fun experiences in a range of online social environments. Give examples of how to be respectful to others online. **Online Reputation** Describe how others can find out information about me by looking online. Explain ways that some of the information about me online could have been	identity, depending on context. **Online Relationships** Explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/our fault. Make positive contributions and be part of online communities. Describe some of the communities in which I am involved and describe how I collaborate with others positively. **Online Reputation** Search for information about an individual online and create a summary report of the information I find. Describe ways that information about people online can be used by others to make judgments about an individual. **Online Bullying**	Challenge and explain why it is important to reject inappropriate messages about gender online. Describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. I know and can give examples of how I might get help, both on and offline. Explain why I should keep asking until I get the help I need. **Online Relationships** Show I understand my responsibilities for the well-being of others in my online social group. Explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming). Demonstrate how I would support others (including those who are having difficulties) online.

Broadwood Primary School
Computing – Progression Map

Managing Online Information Talk about how I can use the internet to find things out. Identify devices I could use to access information on the internet. Give simple examples of how to find information (e.g. search engine, voice activated searching). **Health, Wellbeing & Lifestyle** Identify rules that help keep us safe and healthy in and beyond the home when using technology. Give some simple examples. **Privacy & Security** Identify some simple examples of my personal information (e.g. name, address, birthday, age, location).	online. Offer examples of how this can make others feel. **Managing Online Information** Talk about how I can use the internet to find things out. Identify devices I could use to access information on the internet. Give simple examples of how to find information (e.g. search engine, voice activated searching). **Health, Wellbeing & Lifestyle** Identify rules that help keep us safe and healthy in and beyond the home when	Describe what information I should not put online without asking a trusted adult first. **Online Bullying** Describe how to behave online in ways that do not upset others and can give examples. **Managing Online Information** Use the internet to find things out. I can use simple keywords in **search engines**. Describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable worried or frightened.	**Online Reputation** Explain how information put online about me can last for a long time. Know who to talk to if I think someone has made a mistake about putting something online. **Online Bullying** Give examples of bullying behaviour and how it could look online. Understand how bullying can make someone feel. Talk about how someone can/would get help about being bullied online or offline. **Managing Online Information**	Explain how my and other people's feelings can be hurt by what is said or written online. Explain why I can take back my trust in someone or something if I feel nervous, uncomfortable or worried. Explain what it means to 'know someone' online and why this might be different from knowing someone in real life. Explain what is meant by 'trusting someone online'. I can explain why this is different from 'liking someone online'. **Online Reputation** Search for information about myself online. Recognise I need to be careful before I share anything about myself or others online.	created, copied or shared by others. **Online Bullying** Identify some online technologies where bullying might take place. Describe ways people can be bullied through a range of media (e.g. image, video, text, chat). Explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation). **Managing Online Information** Analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what	Recognise when someone is upset, hurt or angry online. Describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone. Explain how to block abusive users. I can explain how I would report online bullying on the apps and platforms that I use. Describe the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline). **Managing Online Information** Use different search technologies. Evaluate digital content and can explain how I make choices from search results. Explain key concepts including: data, information, fact, opinion belief, true,	Demonstrate ways of reporting problems online for both myself and my friends. **Online Reputation** Explain how I am developing an online reputation which will allow other people to form an opinion of me. Describe some simple ways that help build a positive online reputation. **Online Bullying** Describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me. Identify a range of ways to report concerns both in school and at home about online bullying. **Managing Online Information** Use search technologies effectively. Explain how search engines work and how results are selected and ranked. Demonstrate the strategies I would apply

Broadwood Primary School
Computing – Progression Map

Describe the people I can trust and can share this with; I can explain why I can trust them. **Copyright & Ownership** Know that work I create belongs to me. Name my work so that others know it belongs to me.	using technology. Give some simple examples. **Privacy & Security** Identify some simple examples of my personal information (e.g. name, address, birthday, age, location). Describe the people I can trust and can share this with; I can explain why I can trust them. **Copyright & Ownership** Know that work I create belongs to me. Name my work so that others know it belongs to me.	**Health, Wellbeing & Lifestyle** Explain rules to keep us safe when we are using technology both in and beyond the home Give examples of some of these rules. **Privacy & Security** 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). Explain why I should always ask a trusted adult before I share any information about myself online.	Use keywords in search engines. Demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). Explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri). Explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. Explain why some information I find online may not be true.	Know who I should ask if I am not sure if I should put something online. **Online Bullying** Explain what bullying is and can describe how people may bully others. Describe rules about how to behave online and how I follow them. **Managing Online Information** Use key phrases in search engines. Explain what **autocomplete** is and how to choose the best suggestion. Explain how the internet can be used to sell and buy things. Explain the difference between a 'belief', an 'opinion' and a 'fact'. **Health, Wellbeing & Lifestyle** Explain why spending too much	criteria have to be met before something is a 'fact'. Describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites). Describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. Explain that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people.	false, valid, reliable and evidence. Understand the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead). Explain what is meant by 'being sceptical'. I can give examples of when and why it is important to be 'sceptical'. Explain what is meant by a 'hoax'. I can explain why I need to think carefully before I forward anything online. Explain why some information I find online may not be honest, accurate or legal. Explain why information that is on a large number of sites	to be discerning in evaluating digital content. Describe how some online information can be opinion and can offer examples. Explain how and why some people may present 'opinions' as 'facts'. Define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting'). Demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important. Identify, flag and report inappropriate content. **Health, Wellbeing & Lifestyle** Describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.

| | | | | Explain how passwords can be used to protect information and devices. **Copyright & Ownership** Explain why work I create using technology belongs to me. Say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). Save my work so that others know it belongs to me (e.g. filename, name on content). | **Health, Wellbeing & Lifestyle** Explain simple guidance for using technology in different environments and settings. Say how those rules/guides can help me. **Privacy & Security** Describe how online information about me could be seen by others. Describe and explain some rules for keeping my information private. Explain what passwords are and can use passwords for my accounts and devices. Explain how many devices in | time using technology can sometimes have a negative impact on me; I can give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos). **Privacy & Security** Give reasons why I should only share information with people I choose to and can trust. I can explain that if I am not sure or I feel pressured, I should ask a trusted adult. Understand and can give reasons why passwords are important. Describe simple strategies for creating and keeping passwords private. Describe how connected devices can collect and share my | Explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true. **Health, Wellbeing & Lifestyle** Explain how using technology can distract me from other things I might do or should be doing. Identify times or situations when I might need to limit the amount of time I use technology. I can suggest strategies to help me limit this time. **Privacy & Security** Explain what a strong password is. Describe strategies for keeping my personal | may still be inaccurate or untrue. Assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose). **Health, Wellbeing & Lifestyle** Describe ways technology can affect healthy sleep and can describe some of the issues. Describe some strategies, tips or advice to promote healthy sleep with regards to technology. **Privacy & Security** Create and use strong and secure passwords. Explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. Explain how and why some apps may request or take | Assess and action different strategies to limit the impact of technology on my health (e.g. **night-shift mode**, regular breaks, correct posture, sleep, diet and exercise). Explain the importance of self-regulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents). **Privacy & Security** Use different passwords for a range of online services. Describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories). Know what to do if my password is lost or stolen. Explain what app permissions are and can give some examples from the technology or services I use. |

					my home could be connected to the internet and can list some of those devices. **Copyright & Ownership** Describe why other people's work belongs to them. Recognise that content on the internet may belong to other people.	information with others. **Copyright & Ownership** Explain why copying someone else's work from the internet without permission can cause problems. Give examples of what those problems might be.	information private, depending on context. Explain that others online can pretend to be me or other people, including my friends. Suggest reasons why they might do this. Explain how internet use can be monitored. **Copyright & Ownership** When searching on the internet for content to use, explain why I need to consider who owns it and whether I have the right to reuse it. Give some simple examples.	payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing. **Copyright & Ownership** Assess and justify when it is acceptable to use the work of others. Give examples of content that is permitted to be reused. .	Describe simple ways to increase privacy on apps and services that provide privacy settings. Describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing). **Copyright & Ownership** Demonstrate the use of search tools to find and access online content which can be reused by others. Demonstrate how to make references to and acknowledge sources I have used from the internet.