Highfield Primary School

Computing Progression Map

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
E-Safety	• I can ask an adult when I want to use the internet. • I can tell an adult when something worrying or unexpected happens while I am using the Internet. • I can be kind to my friends. • I can talk about the amount of time I spend using a computer / tablet / game device. • I am careful with technology devices, apps and games I use.	• I can keep my password private. • I can tell you what personal information is • I can tell an adult when I see something unexpected or worrying online. • I can talk about why it's important to be kind and polite. • I can agree and follow sensible e-Safety rules.	• I can explain why I need to keep my password and personal information private. • I can describe the things that happen online that I must tell an adult about • I can talk about why I should go online for a short amount of time. • I can talk about why it is important to be kind and polite online and in real life.(PHSE) • I know that not everyone is who they say they are on the Internet. • I can recognise an age appropriate website.	• I can talk about what makes a secure password and why they are important. • I can protect my personal information when I do different things online. • I can use the safety features of websites as well as reporting concerns to an adult. • I can recognise websites and games appropriate for my age. • I know what choices to make about how long I spend online. • I ask an adult before downloading files and games from the Internet. • I know how I should behave towards others online and know to report my concerns	• I choose a secure password when I am using a website. • I can talk about the ways I can protect myself and my friends from harm online. • I use the safety features of websites as well as reporting concerns to an adult. • I know that anything I post online can be seen by others. • I choose websites and games that are appropriate for my age. • I can help my friends make good choices about the time they spend online. • I can talk about why I need to ask a trusted adult before downloading files and games from the Internet. • I know how to comment positively and respectfully online.	• I protect my password and other personal information. • I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult. • I know that anything I post online can be seen, used and may affect others. • I can talk about the dangers of spending too long online or playing a game. • I can explain the importance of communicating kindly and respectfully. • I can discuss the importance of choosing an age-appropriate website or game. • I can explain why I need to protect my computer or device from harm. • I know which resources on the Internet I can download and use.	• I protect my password and other personal information. • I can explain the consequences of sharing too much about myself online. • I support my friends to protect themselves and make good choices online, including reporting concerns to an adult. • I can explain the consequences of spending too much time online or on a game. • I can explain the consequences to myself and others of not communicating kindly and respectfully. • I can explain why I need to protect my computer or device from harm on the Internet.

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Programming	• I can give instructions to my friend and follow their instructions to move around. • I can describe what happens when I press buttons on a device. • I can press the buttons in the correct order to make my robot do what I want. • I can describe what actions I will need to do to make something happen. • I can begin to predict what will happen for a short sequence of simple instructions. • I can begin to use software/apps to create movement and patterns on a screen.	• I can give instructions to my friend and follow their instructions to move around. • I can describe what happens when I press buttons on a robot. • I can press the buttons in the correct order to make my robot do what I want. • I can describe what actions I will need to do to make something happen and begin to use the word algorithm. • I can begin to predict what will happen for a short sequence of simple instructions. • I can begin to use software/apps to create movement and patterns on a screen. • I can begin to use the word debug when I correct mistakes when I program	• I can talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. • I can make and save a chart or graph using the data I collect. • I can talk about the data that is shown in my chart or graph. • I am starting to understand a branching database (science practical) • I can tell you what kind of information I could use to help me investigate a question.	• I can break an open-ended problem up into smaller parts. • I can put programming commands into a sequence to achieve a specific outcome. • I keep testing my program and can recognise when I need to debug it. • I can use repeat commands. (unconditional) • I can describe the algorithm I will need for a simple task. • I can detect a problem in an algorithm which could result in unsuccessful programming. (find the bug)	• I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts. (planning parts for your program) • I can use an efficient procedure to simplify a program. (repeat/loop) • I know that I need to keep testing my program while I am putting it together. • I can use a variety of tools to create a program. • I can recognise an error in a program and debug it. • I can recognise that an algorithm may need to be more complex. (example: you can't get from A to B in a straight line) • I recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology. (example- times tables = repeated addition/ recipe)	• I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program. • I can refine a procedure using repeat commands to improve a program. • I can use a variable to increase programming possibilities. • I can change an input to a program to achieve a different output. • I can use 'if' and 'then' commands to select an action. (conditional commands) • I can use logical reasoning to detect and debug mistakes in a program. • I use logical thinking, imagination and creativity to extend a program.	• I can deconstruct a problem into smaller steps, recognising similarities to solutions used before. • I can explain and program each of the steps in my algorithm. • I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm. • I can recognise when I need to use a variable to achieve a required output. • I can use different inputs to control a device or onscreen action and predict what will happen. (app to create painting) • I can use logical reasoning to detect and correct errors in an algorithms and programs. • I can talk about how a computer model can provide information about a physical system.

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Handling Data	• I can tell you about different kinds of information such as pictures, video, text and sound.	• I can talk about the different ways in which information can be shown (cross curricular with Maths • I can use technology to collect information, including video and sound. (videoing instructions) • I can sort different kinds of information and present it to others. (cross science unplugged/practical) • I can add information to a pictograph and talk to you about what I have found out. (cross curriculum with Maths)	• I can use technology to organise and present my ideas in different ways. • I can use the keyboard on my device to add, delete and space text for others to read. • I can save and open files on the device I use.	• I can talk about the different ways data can be organised. • I can search a ready-made database to answer questions. • I can collect data help me answer a question. • I can add to a database. • I can make a branching database. • I can use a data logger to monitor changes and can talk about the information collected.	• I can organise data in different ways. • I can collect data and identify where it could be inaccurate. • I can plan, create and search a database to answer questions. • I can choose the best way to present data. • I can use a data logger to record and share my readings.	• I can use database to collect and record data. • I can choose an appropriate tool to help me collect data. • I can present data in an appropriate way. • I can search a database using different operators to refine my search. • I can talk about mistakes in data and suggest how it could be checked.	• I can plan the process needed to investigate the world around me. • I can use a spreadsheet to collect and record data. • I can select the most effective tool to collect data for my investigation. • I can check the data I collect for accuracy and plausibility. • I can interpret the data I collect. • I can present the data I collect in an appropriate way. • I use the skills I have developed to interrogate a database.
Multimedia	• I can move objects on a screen. • I can create shapes and text on a screen. I can use technology to show my learning and explain e,g Tapestry.		• I can use technology to organise and present my ideas in different ways. • I can use the keyboard on my device to add, delete and space text for others to read. • I can save and open files on the device I use.	• I can create different effects with different technology tools. (creating a movie) • I can combine a mixture of text, graphics and sound to share my ideas and learning. (cross curricular with art) • I can use appropriate commands to amend work on my device. (editing movie)	• I can use photos, video and sound to create an atmosphere when presenting to different audiences (powerpoint) • I can change the appearance of text to increase its effectiveness. • I can create, modify and present	• I can use text, photo, sound and video editing tools to refine my work. • I can use the skills I have already developed to create content using unfamiliar technology. • I can select, use and combine the appropriate technology tools to create effects that will	• I can talk about audience, atmosphere and structure when planning a particular outcome (cross D & T) • I can confidently identify the potential of unfamiliar technology to increase my creativity (design 3D printing)

				• I can evaluate my work and improve its effectiveness.	documents for a particular purpose. • I can use a keyboard confidently and make use of a spellchecker to write and review my work (powerpoint) • I can give constructive feedback to my friends to help them improve their work and refine my own work	have an impact on others. • I can select an appropriate online or offline tool to create and share ideas. (blog safely –lgfl J2E) • I can review and improve my own work and support others to improve their work.	• I can combine a range of media, recognising the contribution of each to achieve a particular outcome. • I can tell you why I select a particular online tool for a specific purpose. • I can be digitally discerning when evaluating the effectiveness of my own work and the work of others (choosing the best of the group)

Technology in our Lives							
	• I can tell you about technology that is used at home and in school. • I can operate simple equipment. • I can use a safe part of the Internet to play and learn.	• I can recognise the ways we use technology in our classroom. • I can recognise ways that technology is used in my home and community. • I can use links to websites to find information. (saved favourites for children) • I can begin to identify some of the benefits of using technology.	• I can tell you why I use technology in the classroom. • I can tell you why I use technology in my home and community. • I am starting to understand that other people have created the information I use. • I can identify benefits of using technology including finding information, creating and communicating. I can talk about the differences between the Internet and things in the physical world.	• I can save and retrieve work on the Internet, the school network or my own device. • I can describe the World Wide Web as the part of the Internet that contains websites. • I can use search tools to find and use an appropriate website. I think about whether I can use images that I find online in my own work.	• I can tell you whether a resource I am using is on the Internet, the school network or my own device. • I can identify key words to use when searching safely on the World Wide Web. • I think about the reliability of information I read on the World Wide Web. • I can tell you how to check who owns photos, text and clipart. • I can create a hyperlink to a resource on the World Wide Web. (PowerPoint)	• I can describe different parts of the Internet. • I can use different online communication tools for different purposes. • I can use a search engine to find appropriate information and check its reliability. • I can recognise and evaluate different types of information I find on the World Wide Web. • I can find out who the information on a webpage belongs to.	• I can tell you the Internet services I need to use for different purposes. • I can describe how information is transported on the Internet. • I can select an appropriate tool to communicate and collaborate online. • I can talk about the way search results are selected and ranked. • I can check the reliability of a website. • I can tell you about copyright and acknowledge the sources of information that I find online.