Barrow Hall Primary School
Computing Curriculum

Skills Progression – Year 1

	e-Safety	Programming	Handling Data	Multimedia	Technology in our Lives
Year 1	• keep their password private. • tell you what personal information is. • tell an adult when they see something unexpected or worrying online. • talk about why it's important to be kind and polite. • recognise an age appropriate website. • agree and follow sensible e-Safety rules.	• give instructions to a friend and follow their instructions to move around. • describe what happens when they press buttons on a robot. • press the buttons in the correct order to make their robot do what they want. • describe what actions they will need to do to make something happen and begin to use the word algorithm. • begin to predict what will happen for a short sequence of instructions. • begin to use software/apps to create movement and patterns on a screen. • use the word debug when they correct mistakes when they program.	• talk about the different ways in which information can be shown. • use technology to collect information, including photos, video and sound. • sort different kinds of information and present it to others. • add information to a pictograph and talk to you about what they have found out.	• be creative with different technology tools. • use technology to create and present their ideas. • use the keyboard or a word bank on their device to enter text. • save information in a special place and retrieve it again.	• recognise the ways we use technology in our classroom. • recognise ways that technology is used in their home and community. • use links to websites to find information. • begin to identify some of the benefits of using technology.

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Skills Progression– Year 2

	e-Safety	Programming	Handling Data	Multimedia	Technology in our Lives
Year 2	• explain why they need to keep their password and personal information private. • describe the things that happen online that they must tell an adult about. • talk about why they should go online for a short amount of time. • talk about why it is important to be kind and polite online and in real life. • know that not everyone is who they say they are on the Internet.	• give instructions to their friend (using forward, backward and turn) and physically follow their instructions. • tell you the order they need to do things to make something happen and talk about this as an algorithm. • program a robot or software to do a particular task. • look at their friend's program and tell you what will happen. • use programming software to make objects move. • watch a program execute and spot where it goes wrong so that they can debug it.	• talk about the different ways they use technology to collect information, including 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 in their chart or graph. • start to understand a branching database. • tell you what kind of information they could use to help them investigate a question.	• 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. • tell you about an online tool that will help them to share their ideas with other people. • save and open files on the device they use. •	• tell you why they use technology in the classroom. • tell you why they use technology in their home and community. • start to understand that other people have created the information they use. • identify benefits of using technology including finding information, creating and communicating. • talk about the differences between the Internet and things in the physical world.

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Skills Progression– Year 3

	e-Safety	Programming	Handling Data	Multimedia	Technology in our Lives
Year 3	• talk about what makes a secure password and why they are important. • protect their personal information when they do different things online. • use the safety features of websites as well as reporting concerns to an adult. • recognise websites and games appropriate for their age. • make good choices about how long they spend online. • ask an adult before downloading files and games from the Internet. • post positive comments online.	• break an open-ended problem up into smaller parts. • put programming commands into a sequence to achieve a specific outcome. • keep testing their program and can recognise when they need to debug it. • use repeat commands. • describe the algorithm they will need for a simple task. • detect a problem in an algorithm which could result in unsuccessful programming.	• talk about the different ways data can be organised. • search a ready-made database to answer questions. • collect data help them answer a question. • add to a database. • make a branching database. • use a data logger to monitor changes and can talk about the information collected.	• create different effects with different technology tools. • combine a mixture of text, graphics and sound to share their ideas and 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.	• save and retrieve work on the Internet, the school network or their own device. • talk about the parts of a computer. • tell you ways to communicate with others online. • describe the World Wide Web as the part of the Internet that contains websites. • use search tools to find and use an appropriate website. • I think about whether use images that they find online in their own work.

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Skills Progression – Year 4

	e-Safety	Programming	Handling Data	Multimedia	Technology in our Lives
Year 4	• I choose a secure password when I am using a website. • talk about the ways 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. • help my friends make good choices about the time they spend online. • talk about why I need to ask a trusted adult before downloading files and games from the Internet. • I comment positively and respectfully online.	• use logical thinking to solve an open-ended problem by breaking it up into smaller parts. • use an efficient procedure to simplify a program. • use a sensor to detect a change which can select an action within my program. • I know that I need to keep testing my program while I am putting it together. • use a variety of tools to create a program. • recognise an error in a program and debug it. • I recognise that an algorithm will help me to sequence more complex programs. • I recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.	• 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 my friends. • use a data logger to record and share my readings with my friends.	• use photos, video and sound to create an atmosphere when presenting to different audiences. • I am confident to explore new media to extend what 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 my work. • use an appropriate tool to share my work and collaborate online. • give constructive feedback to my friends to help them improve their work and refine my own work.	• tell you whether a resource I am using is on the Internet, the school network or my own device. • 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. • tell you how to check who owns photos, text and clipart. • create a hyperlink to a resource on the World Wide Web.

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Progression Skills – Year 5

e-Safety	Programming	Handling Data	Multimedia	Technology in our Lives
• protect my password and other personal information. • explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult. • know that anything I post online can be seen, used and may affect others. • talk about the dangers of spending too long online or playing a game. • explain the importance of communicating kindly and respectfully. • discuss the importance of choosing an age-appropriate website or game. • explain why I need to protect my computer or device from harm. • know which resources on the Internet download and use.	• decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program. • refine a procedure using repeat commands to improve a program. • use a variable to increase programming possibilities. • change an input to a program to achieve a different output. • use 'if' and 'then' commands to select an action. • talk about how a computer model can provide information about a physical system. • use logical reasoning to detect and debug mistakes in a program. • use logical thinking, imagination and creativity to extend a program.	• use a spreadsheet and database to collect and record data. • choose an appropriate tool to help me collect data.. • present data in an appropriate way. • search a database using different operators to refine my search. • talk about mistakes in data and suggest how it could be checked.	• use text, photo, sound and video editing tools to refine my work. • use the skills I have already developed to create content using unfamiliar technology. • select, use and combine the appropriate technology tools to create effects that will have an impact on others. • select an appropriate online or offline tool to create and share ideas. • review and improve my own work and support others to improve their work.	• describe different parts of the Internet. • use different online communication tools for different purposes. • use a search engine to find appropriate information and check its reliability. • recognise and evaluate different types of information I find on the World Wide Web. • describe the different parts of a webpage. • find out who the information on a webpage belongs to.

Year 5

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Skills Progression – Year 6

e-Safety	Programming	Handling Data	Multimedia	Technology in our Lives
• I protect my password and other personal information. • 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. • explain the consequences of spending too much time online or on a game. • explain the consequences to myself and others of not communicating kindly and respectfully. • protect my computer or device from harm on the Internet.	• deconstruct a problem into smaller steps, recognising similarities to solutions used before. • explain and program each of the steps in my algorithm. • evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm. • recognise when I need to use a variable to achieve a required output. • use a variable and operators to stop a program. • use different inputs (including sensors) to control a device or onscreen action and predict what will happen. • use logical reasoning to detect and correct errors in a algorithms and programs.	• plan the process needed to investigate the world around me. • select the most effective tool to collect data for my investigation. • check the data I collect for accuracy and plausibility. • interpret the data I collect. • present the data I collect in an appropriate way. • I use the skills I have developed to interrogate a database.	• talk about audience, atmosphere and structure when planning a particular outcome. • confidently identify the potential of unfamiliar technology to increase my creativity. • combine a range of media, recognising the contribution of each to achieve a particular outcome. • tell you why I select a particular online tool for a specific purpose. • be digitally discerning when evaluating the effectiveness of my own work and the work of others.	• tell you the Internet services I need to use for different purposes. • describe how information is transported on the Internet. • select an appropriate tool to communicate and collaborate online. • talk about the way search results are selected and ranked. • check the reliability of a website. • tell you about copyright and acknowledge the sources of information that I find online.