

Computing Progression of Skills

High Ham COMPUTING Progression of skills

ONLINE SAFETY

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • I agree and use sensible rules to keep me safe when I use technology • I explain why it's important to be kind and polite • I use links to websites to find information • I tell a trusted adult what I want to use a device for • I show a trusted adult when something worrying or unexpected happens when I am using a device • I know what my personal information is and keep it private • I know that something I put online can be seen by others • I use different technologies, with a trusted adult, to communicate responsibly with others • I am careful about the icons I click or tap when I use technology devices • I tell you similarities and differences between people I know • I say how I feel when someone says something nice to me • I select from a list of apps, games and websites that a trusted adult gives me • I use devices for the time I am allowed and tell you what else I like doing 	<ul style="list-style-type: none"> • I agree and use sensible rules to keep me safe when I use technology • I talk about why it is important to be kind and polite online and in real life • I know that not all information online is true • Before I use a device, I talk to a trusted adult about how I will keep myself safe • I tell a trusted adult when something worrying or unexpected happens when I am using a device • I explain why I need to keep my passwords and personal information private • I know that not everyone is who they say they are online • I identify some possible risks to devices • I identify similarities and differences between people I know and people I see in the media/online • I tell you how I feel when someone says something nice or not nice to me • I describe the things I enjoy about age-appropriate apps, games and websites I am guided to use • I take a break when I have been using a device for too long • I do a range of other activities when I am not using devices 	<ul style="list-style-type: none"> • I contribute to shared rules and use them to make good choices when I use technology • I describe the ways that people get bullied when they use different technologies and consider what I post • I think about whether I can use images that I find online in my own work • I use search tools to find appropriate information and decide whether I can trust it • I use the safety features of websites as well as reporting concerns to a trusted adult • I use a secure password and explain why they are important • I protect my personal information when I do different things online • I participate safely and responsibly in a secure online community • I ask a trusted adult before downloading files and games from the Internet • I identify images which have been digitally altered • I explain how I feel when someone responds to something I have shared online • I use age-appropriate apps, games and websites from a list I have agreed with others • I make good choices about when and why I use devices • I identify adverts online, including those within Google searches 	<ul style="list-style-type: none"> • I contribute to shared rules and use them to make good choices when I use technology • I comment positively and respectfully when I use different technologies • I explain how to check who owns photos, text and clipart • I identify key words to use when searching safely online and think about the reliability of information I find • I use a range of strategies to protect myself and my friends from harm online, including reporting concerns to a trusted adult • I know that anything I share online will stay there to be seen and used by others • I make safe choices when using technology to communicate responsibly with others • I explain why I need to ask a trusted adult before downloading files and games from the internet • I explain how digitally altered images in the media make me feel • I use appropriate strategies to deal with comments online • I choose apps, games and websites that are appropriate for my age and explain my reasons to friends • I tell my friends about the sensible choices I make about when and why I use device • I ignore or close adverts that 	<ul style="list-style-type: none"> • I contribute to shared rules and use them to support myself and others when we use technology • I always communicate kindly and respectfully and can describe the impact where this does not happen • I know which online resources I can download and use • I use a search engine to find and evaluate different types of information • I explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to a trusted adult • I use a secure password and safe screen name when I am using an online tool • I explain the risks of sharing too much about myself online • I compare my online and face-to-face relationships • I explain why I need to protect my computer or device from harm • I know the reasons why images are altered • I recognise that online friendships affect my feelings • I select age-appropriate apps, games and websites 	<ul style="list-style-type: none"> • I contribute to shared rules and use them to support myself and others • I always communicate kindly and respectfully, working with others to help all enjoy use of technology • I acknowledge the sources of information that I find online • I talk about the way search results are selected and ranked and check the reliability of websites I visit • I support my friends to protect themselves and make good choices online, including reporting concerns to a trusted adult • I consider terms and conditions and adjust privacy settings to maintain control of my personal information • I check the information about me online and know that some of it can be uploaded by others • I explain how to communicate safely and responsibly with people I only know online • I protect my computer or device from harm on the internet • I explain how images in the media affect how we feel about ourselves • I explain how online friendships affect our feelings • I select age-appropriate apps, games and websites and explain the potential risks of making different choices

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			appear on my device and explain my reasons	and encourage my friends to do the same	<ul style="list-style-type: none"> • I support my friends in evaluating their use of games and devices and make good choices for myself • I explain how my data is used to target adverts towards me
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PROGRAMMING

<ul style="list-style-type: none"> • 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 instructions. • I can begin to use software/apps to create movement and patterns on a screen. • I can use the word debug when I correct mistakes when I program. 	<ul style="list-style-type: none"> • I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions. • I can tell you the order I need to do things to make something happen and talk about this as an algorithm. • I can program a robot or software to do a particular task. • I can look at my friend's program and tell you what will happen. • I can use programming software to make objects move. • I can watch a program execute and spot where it goes wrong so that I can debug it. 	<ul style="list-style-type: none"> • 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. • 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. 	<ul style="list-style-type: none"> • I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts. • I can use an efficient procedure to simplify a program. • I can 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. • I can use a variety of tools to create a program. • I can 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. 	<ul style="list-style-type: none"> • 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. • I can talk about how a computer model can provide information about a physical system. • I can use logical reasoning to detect and debug mistakes in a program. • I use logical thinking, imagination and creativity to extend a program. 	<ul style="list-style-type: none"> • 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 a variable and operators to stop a program. • I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen. • I can use logical reasoning to detect and correct errors in a algorithms and programs.
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TECHNOLOGY IN OUR LIVES					
<ul style="list-style-type: none"> • 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. • I can begin to identify some of the benefits of using technology. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • I can save and retrieve work on the Internet, the school network or my own device. • I can talk about the parts of a computer. • I can tell you ways to communicate with others online. • 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. 	<ul style="list-style-type: none"> • 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. • I can recognise that websites use different methods to advertise products 	<ul style="list-style-type: none"> • 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 describe the different parts of a webpage. • I can find out who the information on a webpage belongs to • I know which resources on the Internet I can download and use. • I can describe the ways in which websites advertise their products to me. 	<ul style="list-style-type: none"> • 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. • I know that websites can use my data to make money and target their advertising
HANDLING DATA					
<ul style="list-style-type: none"> • I can talk about the different ways in which information can be shown. • I can use technology to collect information, including photos, video and sound. 	<ul style="list-style-type: none"> • I 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • I can use a spreadsheet and 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. 	<ul style="list-style-type: none"> • I can plan the process needed to investigate the world around me. • I can select the most effective tool to collect data for my investigation. • I can check the data I collect for accuracy and plausibility.

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<ul style="list-style-type: none"> • I can sort different kinds of information and present it to others. • I can add information to a pictograph and talk to you about what I have found out. 	<ul style="list-style-type: none"> • I can talk about the data that is shown in my chart or graph. • I am starting to understand a branching database. • I can tell you what kind of information I could use to help me investigate a question. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • I can choose the best way to present data to my friends. • I can use a data logger to record and share my readings with my friends. 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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.
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MULTIMEDIA

<ul style="list-style-type: none"> • I can be creative with different technology tools. • I can use technology to create and present my ideas. • I can use the keyboard or a word bank on my device to enter text. • I can save information in a special place and retrieve it again. 	<ul style="list-style-type: none"> • 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 tell you about an online tool that will help me to share my ideas with other people. • I can save and open files on the device I use. 	<ul style="list-style-type: none"> • I can create different effects with different technology tools. • I can combine a mixture of text, graphics and sound to share my ideas and learning. • I can use appropriate keyboard commands to amend text on my device, including making use of a spellchecker. • I can evaluate my work and improve its effectiveness. I can use an appropriate tool to share my work online. 	<ul style="list-style-type: none"> • I can use photos, video and sound to create an atmosphere when presenting to different audiences. • I am confident to explore new media to extend what I can achieve. • I can change the appearance of text to increase its effectiveness. • I can create, modify and present documents for a particular purpose. • I can use a keyboard confidently and make use of a spellchecker to write and review my work. • I can use an appropriate tool to share my work and collaborate online. • I can give constructive feedback to my friends to help them improve their work and refine my own work. 	<ul style="list-style-type: none"> • 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 have an impact on others. • I can select an appropriate online or offline tool to create and share ideas. • I can review and improve my own work and support others to improve their work. 	<ul style="list-style-type: none"> • I can talk about audience, atmosphere and structure when planning a particular outcome. • I can confidently identify the potential of unfamiliar technology to increase my creativity. • 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.
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