



Eastover Primary School

Whole school computing knowledge progression

	FS	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Programming	<ul style="list-style-type: none"> make a floor robot move use simple software to make something happen make choices about the buttons and icons I press, touch or click on 	<ul style="list-style-type: none"> give instructions to my friend and follow their instructions to move around describe what happens when I press buttons on a robot press the buttons in the correct order to make my robot do what I want describe what actions I 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 g. use the word debug when I correct mistakes when I program 	<ul style="list-style-type: none"> give instructions to my friend (using forward, backward and turn) and physically follow their instructions tell you the order I 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 my friend's program and tell you what will happen e. use programming software to make objects move watch a program execute and spot where it goes wrong so that I can debug it 	<ul style="list-style-type: none"> break an open-ended problem up into smaller parts put programming commands into a sequence to achieve a specific outcome keep testing my program and can recognise when I need to debug it use repeat commands describe the algorithm I will need for a simple task detect a problem in an algorithm which could result in unsuccessful programming 	<ul style="list-style-type: none"> 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 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 recognise that an algorithm will help me to sequence more complex programs 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"> 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 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 	<ul style="list-style-type: none"> 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.
Handling Data	<ul style="list-style-type: none"> tell you different kinds of information such as pictures, video, text and sound 	<ul style="list-style-type: none"> talk about the different ways in which information can be shown use technology to collect information, 	<ul style="list-style-type: none"> talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder make and save a chart or graph using the data I collect talk about the data that is shown in my chart or graph 	<ul style="list-style-type: none"> talk about the different ways data can be organized search a ready-made database to answer questions collect data help me answer a question add to a database 	<ul style="list-style-type: none"> organise data in different ways collect data and identify where it could be inaccurate plan, create and search a database to answer questions 	<ul style="list-style-type: none"> use a spreadsheet and database to collect and record data choose an appropriate tool to help me collect data 	<ul style="list-style-type: none"> plan the process needed to investigate the world around me select the most effective tool to collect data for my investigation

		<p>including photos, video and sound</p> <ul style="list-style-type: none"> • sort different kinds of information and present it to others • add information to a pictograph and talk to you about what I have found out 	<ul style="list-style-type: none"> • begin to understand a branching database • tell you what kind of information I could use to help me investigate a question 	<ul style="list-style-type: none"> • make a branching database • use a data logger to monitor changes and can talk about the information collected 	<ul style="list-style-type: none"> • choose the best way to present data to my friends • use a data logger to record and share my readings with my friends 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • check the data I collect for accuracy and plausibility • interpret the data I collect present the data I collect in an appropriate way
Multimedia	<ul style="list-style-type: none"> • move objects on a screen • create shapes and text on a screen • use technology to show my reading 	<ul style="list-style-type: none"> • be creative with different technology tools • use technology to create and present my ideas • use the keyboard or a word bank on my device to enter text • save information in a special place and retrieve it again 	<ul style="list-style-type: none"> • use technology to organise and present my ideas in different ways • use the keyboard on my device to add, delete and space text for others to read • save and open files on the device I use 	<ul style="list-style-type: none"> • create different effects with different technology tools • combine a mixture of text, graphics and sound to share my ideas and learning • use appropriate keyboard commands to amend text on my device, including making use of a spellchecker • evaluate my work and improve its effectiveness • use an appropriate tool to share my work online 	<ul style="list-style-type: none"> • use photos, video and sound to create an atmosphere when presenting to different audiences • be confident to explore new media to extend what I 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 my work • use an appropriate tool to share my work and collaborate online • give constructive 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
Technology In Our Lives	<ul style="list-style-type: none"> • tell you about technology that is used at home and in school • operate simple equipment • use a safe part of the Internet to play and learn 	<ul style="list-style-type: none"> • recognise the ways we use technology in our classroom • recognise ways that technology is used in my home and community 	<ul style="list-style-type: none"> • tell you why I use technology in the classroom • tell you why I use technology in my home and community • begin to understand that other people have created the information I use • identify benefits of using technology including finding information, creating and communicating 	<ul style="list-style-type: none"> • save and retrieve work on the Internet, the school network or my 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 	<ul style="list-style-type: none"> • 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 • think about the reliability of 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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

		<ul style="list-style-type: none"> • use links to websites to find information • begin to identify some of the benefits of using technology 	<ul style="list-style-type: none"> • talk about the differences between the Internet and things in the physical world 	<p>Internet that contains websites</p> <ul style="list-style-type: none"> • use search tools to find and use an appropriate website • think about whether I can use images that I find online in my own work. 	<p>information I read on the World Wide Web</p> <ul style="list-style-type: none"> • tell you how to check who owns photos, text and clipart • create a hyperlink to a resource on the World Wide Web • recognise that websites use different methods to advertise products 	<ul style="list-style-type: none"> • 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 • know which resources on the Internet I can download and use • describe the ways in which websites advertise their products to me 	<p>and collaborate online</p> <ul style="list-style-type: none"> • 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 • know that websites can use my data to make money and target their advertising
Online Safety	<ul style="list-style-type: none"> • ask an adult when I want to use the internet • tell an adult when something worrying or unexpected happens while I am using the internet • be kind to my friends • talk about the amount of time I spend on a computer/ tablet/ game device • handle with care technology devices 	<ul style="list-style-type: none"> • create, name and date my digital creative work • safely search for images online • keep personal information safe • tell an adult when I see something worrying • agree and follow sensible e-safety rules 	<ul style="list-style-type: none"> • understand the term 'digital footprint' • use keywords in an online search • recognise an age-appropriate website • identify kind and unkind behaviour online • talk about why it's important to be kind and polite online and in real life • talk about the time I spend online • know that not everyone is who they say they are in on the internet 	<ul style="list-style-type: none"> • understand 'cyber bullying' and how to address it • understand how websites use adverts to promote products • create strong passwords and understand privacy settings • explore different ways children can communicate online positively • recognise websites and games appropriate for my age • make good choices about the time I spend online • understand the dangers of downloading files and games from the internet 	<ul style="list-style-type: none"> • understand 'cyber bullying' and how to address it • choose websites and games appropriate for my age • understand 'plagiarism' and how to avoid it • use the safety features of websites as well as reporting concerns to adults • choose a secure password when I am using a website • talk about the ways I can protect myself and my friends from online • know that anything I post online can be seen by others • comment respectfully and positively online • talk about the dangers of spending too much time online 	<ul style="list-style-type: none"> • 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 and device from harm • recognise how photos can be edited and how 	<ul style="list-style-type: none"> • make comparisons between bullying and 'cyber bullying' • protect my password and other personal information • explain the consequences of sharing too much about myself online • 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

						information online can be inaccurate	<ul style="list-style-type: none">• protect my computer or device from harm on the Internet
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