



Robins Lane Primary School

Computing Progression Statements – End of year expectations

2019-2020

	e-Safety	Programming	Handling Data	Multimedia	Technology in our Lives
Year 1	<ul style="list-style-type: none"> Keep a password private. Explain what personal information is. Know to tell an adult when there is something unexpected or worrying online. Discuss why it's important to be kind and polite. Recognise an age-appropriate website. Agree and follow sensible e-safety rules. 	<ul style="list-style-type: none"> Give, and follow, instructions to move around. Describe what happens when buttons are pressed on a robot. Press buttons in the correct order to make my robot carry out desired actions. Describe what actions are needed 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 correcting mistakes in a program. 	<ul style="list-style-type: none"> Discuss 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 Discuss what has been found out. 	<ul style="list-style-type: none"> Be creative with different technology tools. Use technology to create and present ideas. Use the keyboard or a word bank on a device to enter text. Save information in a special place and retrieve it again. 	<ul style="list-style-type: none"> Recognise the ways we use technology in our classroom. Recognise ways that technology is used in the home and community. Use links to websites to find information. Begin to identify some of the benefits of using technology.
Year 2	<ul style="list-style-type: none"> Explain why a password and personal information private. Describe the things that happen online that I must tell an adult about. Understand that they should only go online for a short amounts time. Discuss 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. 	<ul style="list-style-type: none"> Give instructions (including forward, backward and turn) and physically follow instructions. Describe the order things need to be done to make something happen and Discuss this as an algorithm. Program a robot or software to do a particular task. Look at a friend's program and describe what will happen. Use programming software to make objects move. Watch a program execute and spot where it goes wrong so to debug it. 	<ul style="list-style-type: none"> Discuss the different ways technology is used to collect information, including a camera, microscope or sound recorder. Make and save a chart or graph using collected data. Discuss the data that is shown in a chart or graph. Start to understand a branching database. Identify what kind of information could be used to help investigate a question. 	<ul style="list-style-type: none"> Use technology to organise and present ideas in different ways. Use the keyboard on a device to add, delete and space text for others to read. Know about online tools that will help to share ideas with other people. Save and open files on the device used. 	<ul style="list-style-type: none"> Explain why technology is used in the classroom. Explain why I use technology in the home and community. Start to understand that other people have created the information I use. Identify benefits of using technology including finding information, creating and communicating. Discuss the differences between the Internet and things in the physical world.

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Year 3	<ul style="list-style-type: none"> • Discuss what makes a secure password and why they are important. • Protect my 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. • Know to ask an adult before downloading files and games from the Internet. • Post positive comments online. 	<ul style="list-style-type: none"> • Break up an open-ended problem into smaller parts. • Put programming commands into a sequence to achieve a specific outcome. • Keep testing my program and recognise when debugging is needed. • 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. 	<ul style="list-style-type: none"> • Discuss the different ways data can be organised. • Search a ready-made database to answer questions. • Collect data to help answer a question. • Add to a database. • Make a branching database. • Use a data logger to monitor changes and discuss the information collected. 	<ul style="list-style-type: none"> • Create different effects with different technology tools. • Combine a mixture of text, graphics and sound to share ideas and learning. • Use appropriate keyboard commands to amend text on a device, including making use of a spellchecker. • Evaluate work and improve its effectiveness. • Use an appropriate tool to share work online. 	<ul style="list-style-type: none"> • Save and retrieve work on the Internet, the school network or own device. • Discuss the parts of a computer. • Explain 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. • Think about whether I can use images that I find online in my own work.
Year 4	<ul style="list-style-type: none"> • Choose a secure password and screen name when using a website. • Discuss the ways to protect themselves and friends from harm online. • Use the safety features of websites as well as reporting concerns to an adult. • Know that anything shared online can be seen by others. • Choose websites, apps and games that are appropriate for their age. • Know how to help friends make good choices about the time they spend online. • Explain why they need to ask a trusted adult before downloading files and games from the Internet. • Comment positively and respectfully online and through text messages. 	<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 a program. • Know that they may need to keep testing a program while 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 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"> • 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. • Use a data logger to record and share readings. 	<ul style="list-style-type: none"> • Use photos, video and sound to create impact when presenting to different audiences. • 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 work. • Use an appropriate tool to share my work and collaborate online. 	<ul style="list-style-type: none"> • Explain whether a resource being used is on the Internet, the school network or own device. • Identify key words to use when searching safely on the World Wide Web. • Consider the reliability of information I read on the World Wide Web. • Explain 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.

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Year 5	<ul style="list-style-type: none"> Choose a secure password and screen name. Protect their password and other personal information. Explain why they need to protect themselves and friends and the best ways to do this, including reporting concerns to an adult. Know that anything posted 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, app or game. Explain why they need to protect their computer or device from harm. 	<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. 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. 	<ul style="list-style-type: none"> Use a spreadsheet and database to collect and record data. Choose an appropriate tool to help them collect data.. Present data in an appropriate way. Search a database using different operators to refine a search. Talk about mistakes in data and suggest how it could be checked. 	<ul style="list-style-type: none"> 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 that will have an impact on others. Select an appropriate online or offline tool to create and share ideas. 	<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. Recognise and evaluate different types of information found 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 they can download and use. Describe the ways in which websites advertise their products.
Year 6	<ul style="list-style-type: none"> Protect their password and other personal information. Explain the consequences of sharing too much about themselves online. Know how to support their 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 themselves and others of not communicating kindly and respectfully. Protect their computer or device from harm on the Internet. 	<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 their algorithm. Evaluate the effectiveness and efficiency of their algorithm while they continually test the programming of that algorithm. Recognise when they 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 algorithms and programs. 	<ul style="list-style-type: none"> Select the most effective tool to collect data for their investigation. Check the data they collect for accuracy and plausibility. Interpret the data they collect. Present the data they collect in an appropriate way. Use the skills they have developed to interrogate a database. 	<ul style="list-style-type: none"> Talk about audience, atmosphere and structure when planning a particular outcome. Combine a range of media, recognising the contribution of each to achieve a particular outcome. Explain why they select a particular online tool for a specific purpose. 	<ul style="list-style-type: none"> Explain the Internet services needed 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. Know about copyright and acknowledge the sources of information found online. know that websites can use people's data to make money and target their advertising.