

Learning at River View

Computing Progression Document

|  | **EYFS** | |  | **Year 1** | | | **Year 2** | | | | **Year 3** | | **Year 4** | | **Year 5** | | | **Year 6** |
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| Handling Data | To be able to tell you about different kinds of information such as pictures, video, text and sound. | | Data Collection | To use technology to collect information, including photos, video and sound.  To be able to add information to a pictograph and talk to you about what I have found out | | | To be able to talk about the different ways I use technology to collect information, including a camera or sound recorder.  To be able to tell you what kind of information I could use to help me investigate a question. | | | | To be able to use a data logger to monitor changes and can talk about the information collected.  To be able to add to a database.  To be able to collect data to help me answer a question. | | To be able to use a data logger to record and share my readings | | To be able to choose an appropriate tool to help me collect data. To be able to use a spreadsheet and database to collect and record data. | | | To be able to select the most effective tool to collect data |
| Interpreting | To be able to sort different kinds of information | | | To be able to talk about the data that is shown in my chart or graph.  To start to understand a branching database. | | | | To be able to search a ready-made database to answer questions. | | To be able to plan, create and search a database to answer questions. | | To be able to search a database using different operators to refine my search. | | | I use the skills I have developed to interrogate a database.  To be able to interpret the data I collect. |
| Presenting | To be able to present data to others.  To be able to talk about the different ways in which information can be shown. | | | To be able to make and save a chart or graph using the data I collect. | | | | To be able to talk about the different ways data can be organised.  To be able to make a branching database. | | To be able to organise data in different ways.  To be able to choose the best way to present data | | To be able to present data in an appropriate way. | | | To be able to present the data I collect in an appropriate way |
| Accuracy |  | | |  | | | |  | | To be able to collect data and identify where it could be inaccurate. | | To be able to talk about mistakes in data and suggest how it could be checked. | | | .To be able to check the data I collect for accuracy and plausibility. |
| Programming | To make choices about the buttons and icons I press,  To use simple software to make something happen  touch or click on | | Programming | To be able to press the buttons in the correct order to make my robot do what I want.  To begin to use software/apps to create movement and patterns on a screen. | | | To be able to program a robot or software to do a particular task.  To be able to use programming software to make objects move. | | | | To be able to put Programming  Commands into a sequence to achieve a  Specific outcome.  To be able to use repeat commands. To be able to describe the algorithm I will need for a simple task. | | To be able to use a variety of tools to create a program.  To be able to use an efficient procedure to simplify a program. | | To be able to decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program  To be able to use a variable to increase programming possibilities.  To be able to change an input to a program to achieve a different output. | | | To be able to deconstruct a problem into smaller steps, recognising similarities to solutions used before.  To be able to use a variable and operators to stop a program.  To be able to recognise when I need to use a variable to achieve a required output. |
| Predicting | To begin to predict what will happen for a short sequence of instructions. | | | To be able to look at my friend’s program and tell you what will happen. | | | |  | | To be able to recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology. | | To be able to use logical thinking, imagination and creativity  to extend a program  To be able to refine a procedure using repeat commands to improve a program. | | | To be able to use different inputs (including sensors) to control a device or onscreen action and predict what will happen. |
| Describing & Evaluating | To be able to describe what actions I will need to do to make something happen and begin to use the word algorithm.  To be able to describe what happens when I press buttons on a robot | | | To be able to tell you the order I need to do things to make something happen and talk about this as an algorithm. | | | | To be able to detect a problem in an algorithm which could result in unsuccessful programming | | To be able to recognise that an algorithm will help me to sequence more complex programs. | | To be able to talk about how a computer model can provide information about a physical system. | | | To be able to explain and program each of the steps in my algorithm.  To be able to evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm. |
| Debugging | To use the word debug when I correct mistakes when I program. | | | To be able to watch a program execute and spot where it goes wrong so that To be able to debug it. | | | | To keep testing my program and can recognise when I need to debug it. | | To be able to can recognise an error in a program and debug it | | To be able to use logical reasoning to detect and debug mistakes in a program | | | To be able to use logical reasoning to detect and correct errors in a algorithms and programs |
| E-Safety | To be able to ask an adult when I want to use the internet  To be careful with technology devices | | Personal Information | | | To keep my password private.  To be able to tell you what personal information is. | | | To be able to explain why I need to keep my password and personal information private. | | To be able to talk about what makes a secure password and why they are important.  To be able to protect my personal information when I do different things online. | | To be able to choose a secure password when I am using a website.  To be able to talk about the ways To be able to protect myself and my friends from harm online. | | To protect my password and other personal information.  To be able to explain the consequences of sharing too much about myself online. | | | I protect my password and other personal information.  To be able to explain the consequences of sharing too much about myself online. |
| To be able to tell an adult when something worrying happens on the internet | | Behaving safely | | | To be able to tell an adult when I see something  unexpected or worrying online.  To be able to recognise an age appropriate website.  To be able to agree and follow sensible e-Safety rules | | | To be able to describe the things that happen online that I must tell an adult about.  To know that not everyone is who they say they are on the Internet. | | To be able to use the safety features of websites as well as reporting concerns to an adult.  To be able to recognise websites and games appropriate for my age.  To be able to ask an adult before downloading files and games from the Internet. | | To be able to use the safety features of websites as well as reporting concerns to an adult.  To be able to choose websites and games that are appropriate for my age.  To be able to know that anything I post online can be seen by others.  To be able to talk about why I need to ask a trusted adult before downloading files and games from the Internet. | | To be able to support my friends to protect themselves and make good choices online, including reporting concerns to an adult.  To protect my computer or device from harm on the Internet. | | | I support my friends to protect themselves and make good choices online, including reporting concerns to an adult.  I protect my computer or device from harm on the Internet. |
| To be able to be kind to my friends. | | Respectful use | | | To be able to talk about why it’s important to be kind and polite. | | | To be able to talk about why it is important to be kind and polite online and in real life. | | To post positive comments online. | | To comment positively and respectfully online | | To be able to explain the consequences to myself and others of not communicating kindly and respectfully. | | | To be able to explain the consequences to myself and others of not communicating kindly and respectfully. |
| To be able to talk about the amount of time I spend on my device | | Time Online | | |  | | | To be able to talk about why I should go online for a short amount of time. | | To be able to make good choices about how long I spend online. | | To be able to help my friends make good choices about the time they spend online. | | To be able to explain the consequences of spending too much time online or on a game. | | | To be able to explain the consequences of spending too much time online or on a game. |
| Multimedia | To be able to move objects on a screen  To be able to create text and shapes on a screen  To use technology to show my learning | Computer skills | | | To be able to use the keyboard or a word bank on my device to enter text.  To be able to save information in a special place and retrieve it again. | | | To be able to use the keyboard on my device to add, delete and space text for others to read.  To be able to save and open files on the device I use | | To be able to use appropriate keyboard commands to amend text on my device, including making use of a spellchecker. | | To be able to use a keyboard confidently and make use of a spellchecker to write and review my work. | | To be able to use the skills I have already developed to create content using unfamiliar technology. | |  | To be able to confidently identify the potential of unfamiliar technology to increase my creativity. | |
| Using Media | | | To be creative with different technology tools. | | | To be able to tell you about an online tool that will help me to share my ideas with other people. | | To be able to create different effects with different technology tools. | | To be able to create, modify and present documents for a particular purpose.  To be able to be confident to explore new media to extend what To be able to achieve.  To be able to change the appearance of text to increase its effectiveness | | To be able to use text, photo, sound and video editing tools to refine my work. | |  | To be able to combine a range of media, recognising the contribution of each to achieve a particular outcome. | |
| Presenting | | | To be able to use technology to create and present my ideas. | | | To use technology to organise and present my ideas in different ways. | | To be able to combine a mixture of text, graphics and sound to share my ideas and learning.  To be able to use an appropriate tool to share my work online. | | To be able to use photos, video and sound to create an atmosphere when presenting to different audiences.  To be able to use an appropriate tool to share my work and collaborate online. | | To be able to select, use and combine the appropriate technology tools to create effects that will have an impact on others.  To be able to select an appropriate online or offline tool to create and share ideas. | |  | To be able to talk about the audience, atmosphere and structure when planning a particular outcome.  To be able to tell you why I select a particular online tool for a specific purpose. | |
|  | | |  | | To be able to evaluate my work and improve its effectiveness. | | To be able to give constructive feedback to my friends to help them improve their work and refine my own work. | | To be able to review and improve my own work and support others to improve their work. | |  | To be able to be digitally discerning when evaluating the effectiveness of my own work and the work of others. | |
| Technology in our lives | To be able to tell you about the technology I use in home and in school  To be able to operate simple equipment  To be able to use a safe part of the internet to play and learn | What is Technology? | | | To recognise the ways we use technology in our classroom.  To recognise ways that technology is used in my home and community. | | | To be able to tell you why I use technology in the classroom  To be able to tell you why I use technology in my home and community.  To be able to identify the benefits of using technology including finding information, creating and communicating. | | To be able to save and retrieve work on the Internet, the school network or my own device  To be able to talk about the parts of a computer | |  | |  | |  |  | |
| World Wide Web | | | To use links to websites to find information.  To begin to identify some of the benefits of using technology | | | To be able to talk about the differences between the Internet and things in the physical world. | | To be able to describe the World Wide Web as the part of the Internet that contains websites.  To be able to use search tools to find and use an appropriate website. | | To be able to identify key words to use when searching safely on the World Wide Web.  To think about the reliability of information I read on the World Wide Web.  To be able to create a hyperlink to a resource on the World Wide Web. | | To be able to describe different parts of the Internet.  To be able to use a search engine to find appropriate information and check its reliability.  To be able to recognise and evaluate different types of information I find on the World Wide Web.  To be able to describe the different parts of a webpage. | |  | To be able to tell you the Internet services I need to use for different purposes.  To be able to describe how information is transported on the Internet.  To be able to talk about the way search results are selected and ranked.  To be able to check the reliability of a website. | |
| communication | | |  | | |  | | To be able to tell you ways to communicate with others online. | |  | | To be able to use different online communication tools for different purposes. | |  | To be able to select an appropriate tool to communicate and collaborate online. | |
| Copyright | | |  | | | To be starting to understand that other people have created the information I use. | | To be able to think about whether I can use images that I find online in my own work. | | To be able to tell you how to check who owns photos, text and clipart. | | To be able to find out who the information on a webpage belongs to. | |  | To be able to tell you about copyright and acknowledge the sources of information that I find online. | |