

#### Intention Statement

Children have the opportunity to use a range of devices in which they learn how to research and present data, use algorithms, learn how to code and debug pieces of code. All children have access to a variety of computing devices, providing them with experience and skills to us different types of software. Children will be able to define the importance of eSafety and will be aware of global issues using technology. They will discuss experiences using technology regularly to prepare them with the skills needed to stay safe online. We aim to provide all children with the opportunity to progress to the next level of their digital excellence. Learners will use the correct vocabulary to explain their thinking and knowledge to solve problems and use devices. Children will be able to use technology outside of the classroom and adapt it to real life.

Early Years		
Concepts (I understand)		
Digital Safety	Understanding Data	Algorithms
<ul> <li>I understand that digital devices can be used to create and communicate and I should do these things with care.</li> </ul>	I am able to talk about different kinds of information such as pictures, videos, text and sound	To be able to talk about some of the steps needed to make a floor robot move
Knowledge	Skills	Vocabulary
<ul> <li>I understand that there are ranges of different devices that do different things for different purposes.</li> <li>I understand that technology is used at home and school.</li> <li>I understand the technology impacts are life's</li> </ul>	<ul> <li>Begin to develop coordination and motor skills in operating a mouse or roller pad on a laptop or PC</li> <li>Begin to log onto a device</li> <li>Use the home button</li> <li>Find letters on a keyboard</li> </ul>	Computer, iPad, app, Instruction, login, keyboard, swipe



Year 1		
Concepts (I understand)		
Digital Safety	Understanding Data	Algorithms
I understand that it is as important to be safe when online as it is in the real world.	<ul> <li>Sort different kinds of information and present it to others.</li> <li>Talk about the ways in which information can be shown</li> </ul>	<ul> <li>Describe what happens when I press buttons on a robot.</li> <li>Begin to predict what will happen for a short sequence of instructions.</li> <li>Press the buttons in the correct order to make my robot do what I want.</li> </ul>
Knowledge	Skills	Vocabulary
<ul> <li>I understand which device to use toc complete a given task</li> <li>I can recognise ways that technology is used at home and in my community</li> <li>I can begin to identify the benefits of technology</li> <li>With support I understand the purpose of some apps/programmes at school and home.</li> </ul>	<ul> <li>I can use passcodes with support to log on to tablets or laptops</li> <li>I can take photo independntly using an app.</li> <li>I can use the shift key for capital letters</li> <li>I can use a space bar between words</li> <li>I can follow links on the internet to find information</li> <li>I can open programme/app on a laptop/table</li> </ul>	Open, present, data, programme, technology, space bar, internet, information, links



Year 2 Concepts (I understand)		
<ul> <li>I understand that there are amazing resources in the online world</li> <li>I understand there are also dangers and that I need to act with care when online.</li> </ul>	<ul> <li>Talk about the data that is shown in my chart or graph.</li> <li>Start to understand a branching database.</li> </ul>	<ul> <li>Give instructions (using forward, backward and turn) and physically follow their instructions.</li> <li>Program a robot or software to do a particular task.</li> <li>Use programming software to make objects move. Watch program execute and spot where it goes wrong so that I can debug it.</li> </ul>
Knowledge	Skills	Vocabulary
• I begin to understand what an algorithms	I can open and save files and images	Device, instruction, algorithm, sequence,
is	• I can use technology purposefully to create, organise and store digital	order, save, files, retrieve, search engine,
I understand an algorithm is a sequence	content	confidential, communication, images,
of instructions that gain a desired outcome	<ul> <li>I can use my personal log ins and understand this needs to kept confidential</li> </ul>	database, execute
• I start to understand the other people	I can use search engines online	
have created the information that I use	I can use the enter key on a key board	
<ul> <li>I can identify the benefits of technology including finding information, creating and communicating</li> <li>I can describe the differences between</li> </ul>	I can use delete and backspace to correct text	
the internet and the physical world.		



Year 3		
Concepts (I understand)		
Digital Safety	Understanding Data	Algorithms
<ul> <li>I understand that people have an online 'presence'</li> <li>I understand it is important to keep my personal information secure.</li> </ul>	<ul> <li>Make a branching database.</li> <li>Talk about the different ways data can be organised.</li> </ul>	<ul> <li>Use repeat commands. Detect a problem in an algorithm which could result in unsuccessful programming.</li> <li>Describe the algorithm needed for a simple task.</li> <li>Break open-ended problems into smaller parts.</li> </ul>
Knowledge	Skills	Vocabulary
<ul> <li>I understand that algorithms are used to formulate a sequence.</li> <li>I understand the world wide web is the internet that contains websites</li> <li>I understand that we can communicate other whilst online</li> <li>I acknowledge the different parts of a computer</li> <li>I retrieve information from the internet on my own device.</li> </ul>	<ul> <li>I can use an appropriate device to complete a specific task</li> <li>I can save and retrieve files/images</li> <li>I can copy and rename files</li> <li>I can copy and paste</li> <li>I can add shape and word art to documents and presentations</li> <li>I begin to understand the various ports of a device</li> <li>I use shift key to type different characters</li> <li>I can swap between letters and symbols on a tablet</li> </ul>	Port, USB, copy, paste, rename, shift, key, formulate, acknowledge, variables, data collection



Year 4		
Concepts (I understand)		
Digital Safety	Understanding Data	Algorithms
<ul> <li>I understand that my actions online have consequences and impact on others</li> <li>I understand my personal is my own and others belong them</li> </ul>	<ul> <li>Collect data and identify where it could be inaccurate.</li> <li>Choose the best way to present data to my peers</li> </ul>	<ul> <li>Use an efficient procedure to simplify a program.</li> <li>Recognise that an algorithm will help me to sequence more complex programs.</li> <li>Recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.</li> </ul>
Knowledge	Skills	Vocabulary
<ul> <li>I understand that a device can be used to access networks or other connected devices</li> <li>I begin to understand the dangers and risks of the internet.</li> <li>I under that the internet is the physically connected network of computers all over the world</li> <li>I understand that a resource I am using is on the internet, school network or my own device</li> <li>I begin to understand the reliability of some of the information found on the internet</li> <li>I understand the websites use different methods to advertise products.</li> </ul>	<ul> <li>I can browse to a specified website</li> <li>I can create a hyperlink to a website</li> <li>I can recognise appropriate online sources</li> <li>I can use spell check</li> <li>I can use a keyboard competently</li> <li>I can change font sizes and colour of text</li> <li>I can begin to use keyboard short cuts on a laptop/PC</li> <li>I can screen capture on a device</li> <li>I can send a document to a printer</li> <li>I can compose and send an email, safely</li> </ul>	error, de-bug, bug, analyse, collect, formula, input, output, hyperlink, font, printer, screen capture, compose, reliability, media, networks



Year 5		
Concepts (I understand)		
Digital Safety	Understanding Data	Algorithms
<ul> <li>I understand that some websites may store my information</li> <li>I understand which personal information should be kept secure and which is appropriate to share</li> <li>I know how to communicate safely online</li> </ul>	<ul> <li>Present data in an appropriate way including spreadsheets</li> <li>Talk about mistakes in data and suggest how it could be checked.</li> </ul>	<ul> <li>Decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program</li> <li>Change an input to a program to achieve a different output</li> <li>Use logical reasoning to detect and debug mistakes in a program</li> <li>Talk about how a computer model can provide information</li> </ul>
Knowledge	Skills	Vocabulary
<ul> <li>I understand the risk and dangers of the internet and how to give safe.</li> <li>I understand that there are age restrictions on websites/apps</li> <li>I know which resources on the internet I can download and use</li> <li>I understand the different parts of a web page.</li> <li>I understand that there are different communication tools for different purposes.</li> <li>I understand that websites advertise their products to me</li> <li>I understand that I should report bullying online</li> <li>I understand that information I share online can last forever</li> </ul>	<ul> <li>I can uploads photos to an app</li> <li>I can work collab on documents</li> <li>I can edit photos/videos</li> <li>I can identify three sources to check information</li> <li>I can use bullet points</li> <li>I can add text boxes and edit them</li> <li>I can use common keyboard short cuts.</li> <li>I can upload documents to share drive</li> </ul>	Spreadsheet, conclusions, field, entry, cell, row, column, results, upload, collaborate, sources, short cuts, cloud, bullying, advertise,





Year 6		
Concepts (I understand)		
Digital Safety	Understanding Data	Algorithms
<ul> <li>I understand that others may trying to obtain my data or share my information without my permission</li> <li>I know how to communicate safely appropriately online</li> <li>I know to questions sources on the internet in terms of reliability</li> </ul>	<ul> <li>Check the data collected for accuracy and plausibility</li> <li>Interpret the data collected.</li> </ul>	<ul> <li>Explain and program each of the steps in my algorithm.</li> <li>Recognise when I need to use a variable to achieve a required output.</li> <li>Use logical reasoning to detect and correct errors in algorithms and programs</li> <li>Evaluate the effectiveness and efficiency of an algorithm whilst continually testing the programming of that algorithm.</li> </ul>
Knowledge	Skills	Vocabulary
<ul> <li>I understand that search results are selected and ranked externally</li> <li>I understand that I have an internet footprint</li> <li>I understand that my internet activity can be trace and tracked.</li> <li>I understand how information is transported on the internet</li> <li>I understand how to selected an appropriate communicate tool</li> <li>I understand that I have legal rights in regards to my safety on the internet</li> </ul>	<ul> <li>I can select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> <li>I can use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> <li>I can recognise different file types for text, image and video</li> <li>I can use a range of search filters to find specific information</li> <li>I can effectively right click on documents and other programmes</li> <li>I can a document/image/video as a particular file type.</li> <li>I can use find and replace when editing documents</li> <li>I can select from the menu in a range of apps.</li> </ul>	logic, choice, variable, ranked, footprint, trace, transfer, legal rights sensor, range, reliability, settings, cookies, editing, filters