

## Computing Year 4 Overview



|                                   |   | Autumn  | Spring  | Summer  |
|-----------------------------------|---|---|---|---|
| <b>Computing</b><br><b>Year 4</b> | <b>Year 4 NC objectives</b>   | <ul style="list-style-type: none"> <li>Understand computer networks, including the internet; how they can provide multiple services, such as the world wide web, and the opportunities they offer for communication and collaboration.</li> <li>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>Use technology safely, respectfully and responsibly;</li> </ul>  | <ul style="list-style-type: none"> <li>Understand computer networks including the internet; how they can provide multiple services, such as the world wide web and the opportunities they offer for communication and collaboration.</li> <li>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> <li>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> </ul>  | <ul style="list-style-type: none"> <li>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> <li>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</li> </ul> |
|                                   | <b>Year 4 Key Learning</b>  | <b>Year 4 Key Learning</b>  | <b>Year 4 Key Learning</b>  |   |
|                                   | <p><b>Computing systems and networks</b></p> <ul style="list-style-type: none"> <li>To understand that software can be used to work online collaboratively.</li> <li>To know what type of comments and suggestions on a collaborative document can be helpful.</li> <li>To know that you can use images, text, transitions and animation in presentation slides.</li> </ul> <p><b>Programming 1</b></p> <ul style="list-style-type: none"> <li>That a variable is a value that can change (depending on conditions) and know that you can create them in Scratch.</li> <li>What a conditional statement is in programming.</li> <li>That using variables can help you to create a quiz on Scratch.</li> </ul> <p><b>Online Safety</b></p> <ul style="list-style-type: none"> <li>To describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy.</li> </ul> | <p><b>Creating Media – Google</b></p> <ul style="list-style-type: none"> <li>To create a webpage as part of a collaborative class webpage.</li> <li>To know that a website is a collection of pages that are all connected.</li> <li>To know that websites usually have a homepage and subpages as well as clickable links to new pages, called hyperlinks.</li> <li>To know that websites should be informative and interactive.</li> </ul> <p><b>Skills Showcase</b></p> <ul style="list-style-type: none"> <li>Recognise the role of HTML</li> <li>Change a HTML code for a specific purpose</li> <li>Alter an image on a webpage</li> </ul> <p><b>Online Safety</b></p> <ul style="list-style-type: none"> <li>To describe some of the methods used to encourage people to buy things online.</li> <li>To explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.</li> </ul> | <p><b>Programming 2</b></p> <ul style="list-style-type: none"> <li>Use decomposition to solve problems</li> <li>To understand what pattern recognition and abstraction mean.</li> <li>To understand how to create an algorithm and what it can be used for.</li> </ul> <p><b>Data handling</b></p> <ul style="list-style-type: none"> <li>To know that computers can use different forms of input to sense the world around them so that they can record and respond to data ('sensor data').</li> <li>To know that a weather machine is an automated machine that respond to sensor data.</li> </ul> <p><b>Online Safety</b></p> <ul style="list-style-type: none"> <li>To explain that technology can be designed to act like or impersonate living things.</li> <li>To explain how technology can be a distraction and identify when I might need to limit the amount of time spent using technology.</li> </ul> |   |
| <b>Vocabulary</b>                 | Average, collaboration, format, contribution, comment, variable, value, orientation, transitions  | Assessment, audience, embed, evaluate, design, HTML, copyright, CSS, end tag, hacker  | Computational thinking, abstraction, script, sequence, variable, logical reasoning, sensor data, accurate   |   |