



## Overchurch Junior School Computing Subject Content and Long Term

### Key Stage 2

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- 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
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- 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
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

### OVERCHURCH COMPUTING LONG TERM PLAN

Year	Autumn	Spring	Summer
<b>3</b>	<p><b>Online Safety Unit 3.2 (Digital Literacy)</b>- NC objective Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Skills Progression Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash. They know more than one way to report unacceptable content and contact.</p>	<p>Coding Students will create programs with loops, events, and conditionals. They will translate their initials into binary, investigate different problem-solving techniques, and discuss how to respond to cyberbullying. By the end of the course, students will create interactive games that they can share. Each concept in Course C is taught from the beginning, graduating toward experiences that allow for growth and creativity to provide all students a rich and novel programming experience.</p>	<p><b>Typing 3.4</b> This unit of work uses 2Type and is designed to help the children learn the basics of quick and efficient typing. Typing, as with handwriting, needs regular practice and although the unit will give the children a basic understanding regular and consistent practice is needed over the next 4 years to ensure typing skills develop</p>
<b>4</b>	<p><b>Online Safety Unit 4.2 (Digital Literacy)</b>- NC objective Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Skills Progression Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children</p>	<p><b>Coding (Computer Science)</b>- Overview of earlier topics and refresh basic ideas such as repeat loops and events. Students will develop their understanding of algorithms, nested loops, while loops, conditionals, and events. <b>Begin to use nested loops</b></p>	<p><b>Effective searching- Unit 4.7 (IT)</b> NC objective- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating.</p> <p><b>Skills Progression</b> Children understand the function, features and layout of a search engine. They can appraise</p>

	know a range of ways of reporting inappropriate content and contact.		selected webpages for credibility and information at a basic level. .
5	<p><b>Online Safety Unit 5.2 (Digital Literacy)</b>- NC objective Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Skills Progression Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.</p>	<p><b>Coding (Computer Science)</b>- Students will practice coding with algorithms, loops, conditionals, and events before they are introduced to functions</p>	<p><b>Databases Unit 5.4 (IT)</b> NC- 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.</p> <p>Skills Progression Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.</p>
6	<p><b>Online Safety Unit 6.2 (Digital Literacy)</b>- NC objective Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Skill Progression Children demonstrate the safe and respectful use of a range of different technologies and online services. They identify more discreet inappropriate behaviours through developing critical thinking, e.g. 2Respond activities. They recognise the value in preserving their privacy when online for their own and other people's safety.</p>	<p><b>Coding (Computer Science)</b> Students will create programs with different kinds of loops, events, functions, and conditionals. They will also investigate different problem-solving techniques and discuss societal impacts of computing and the internet.</p>	<p><b>Understanding computer networks (Computer Science) NC-</b> 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</p> <p><b>Skills Progression</b> Children understand and can explain in some depth the difference between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the internet in school.</p>