Computing long-term plan 2026-2027

Key Stage 2
Overchurch Junior School Key Elements:
To Connect . To Communicate . To Code . To Collect

The approach of Overchurch Junior School follows the National Curriculum. We use a structured approach teaching in blocks as well as cross curricular.

Key Stage 2- Pupils should be taught to:

- 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

Year	Autumn		Spring		Summer
3	***Computing systems and networks*** -I can explain how digital devices work - I can identify input and output devices - I can explain how digital devices can help us - I can explain how a computer network can be used to share information - I can explore how digital devices can be connected	**Ready, Steady, Click** - I can identify essential parts of a computer and their uses - I can use input devices like mouse and keyboard effectively - I can use basic features of the Chrome OS - I can navigate the internet safely and use educational software - I can explain how text and images show information - I can add content to a desktop	***Sequencing Sounds*** - I can explore a new programming environment (Scratch) - I can use commands to control my sprite - I can start my program effectively - I can put a sequence of commands in an order - I can change the appearance of my project - I can create a project from a task description	***Branching databases*** - I can create questions with yes/no answers - I can use groups to separate data - I can create a branching database - I can explain why it is helpful for a database to be well structured - I can plan the structure of a branching database - I can create an identification tool	***Stop-frame Animation*** -I can explain that an animation is a sequence of drawings or photographs -I can show that animated movement is a sequence of images -I can plan an animation -I can edit and evaluate my animation -I can improve my animation based on feedback -I can add other media to my animation and evaluate it

		publishing publication - I can explain the benefits of desktop publishing			

4	***Computing systems-the internet*** - I can describe how networks physically connect to other networks - I can recall how a network makes up the internet - I can describe how websites can be shared on the World Wide Web (WWW) - I can describe how content can be added and accessed on the World Wide Web (WWW)	***Repetition in shapes*** - I can explain why accuracy in programming is important - I can create a program in a text-based language - I can explain what 'repeat' means - I can change a count-controlled loop - I can break down a task into small steps	***Data logging*** - I can explain that data gathered over time can be used to answer questions - I can use a digital device to collect data - I can explain that a data logger collects data from sensors over time - I can recognise how a computer can help us analyse data - I can identify the data needed to answer questions - I can use data from sensors to answer questions	***Photo editing*** -I can explain that the composition of digital images can be changed - I can explain that colours can be changed in digital images - I can explain how cloning can be used in photo editing - I can show that images can be combined - I can combine images for a purpose	***Repetition in games*** -I can use a count-controlled loops in a different programming environment (Scratch) - I can use infinite loops and count controlled loops - I can develop a design that includes two or more loops which run at the same time

	- I can recognise how the content of the WWW is created by people - I can explain why unreliable online content is bad	- I can create a program that uses count-controlled loops to produce a given outcome		- I can evaluate how changes can improve an image	- I can change an infinite loop in a given program - I can design a project that includes repetition - I can create a project that includes repetition

5	***Computing networks sharing information*** -I can explain that computers can be connected together to form systems - I can explain the role of computer	***Creating media- video editing*** - I can explain what makes a video effective - I can identify digital devices that can record video - I can capture video using a range of techniques	***Selection in physical computing*** -I can control a simple circuit connected to a computer - I can write a program that includes count-controlled loops	***Flat-file databases*** - I can use a form to record information - I can explain advantages and disadvantages of paper and computer-based databases - I can answer questions by	***Creating media- vector drawing*** - I can use a variety of drawing tools to product different outcomes - I can create a vector drawing by combining shapes	***Selection in quizzes*** - I can explain how selection is used in computer programs - I can create a program with different outcomes using conditions - I can explain how selection

	systems in our lives - I can experiment with search engines - I can describe how search engines select results - I can explain how search results are ranked - I can explain why the order of results is important and how they affect people	- I can create a storyboard - I can identify that video can be improved through reshooting and editing - I can consider the impact of the changes I made when making and sharing a video	- I can explain that a loop can stop when a condition is met - I can check that conditions are being met using loops - I can design a physical project that includes selection - I can create a program that controls a 'chairoplane'	grouping and then sorting data - I can use online tools to select specific data - I can use computer programs to compare data visually - I can use a real-world database to answer questions	- I can use sizing tools to achieve a desired effect - I can use layers in vector drawings - I can group objects to make them easier to work with - I can use multiple skills within my own vector drawings	controls the flow of a program - I can design a program which uses selection - I can create a program which uses selection - I can evaluate my program

6	***Computing systems and networks- Internet connections*** - I can explain the importance	***3D Modelling*** -I can create work in three dimensions on a computer - I can identify that digital 3D	***Digital Me: Smart, Safe & Social*** -I can recognise and evaluate the risks and benefits of using	***Variables in games*** -I can explain what a variable is - I can explain why a variable is	***Spreadsheets*** -I can create a data set in a spreadsheet - I can build a data set in a spreadsheet	***Webpage creation*** - I can review an existing website and consider its structure

	of internet addresses - I can recall how data is transferred across the internet - I can explain how sharing information online can help people to work together - I can evaluate different ways of working together online - I can recognise how we communicate using technology - I can evaluate different methods of online communication	objects can be changed - I can recognise that objects can be combined in a 3D model - I can create a 3D model for a given purpose - I can plan my own 3D model - I can create my own digital 3D model	social media platforms. -I can describe how to respond to online content or communication that makes me feel uncomfortable or unsafe. -I can demonstrate respectful and responsible behaviour when communicating online. -I can explore the concept of a digital footprint and online reputation	used in a program - I can choose how to improve a game by using variables - I can design a project - I can use my design to create a project - I can evaluate my project	- I can explain that formulas can be used in calculations - I can apply formulas to data - I can create a spreadsheet to plan an event - I can choose suitable ways to present data	- I can plan the features of a web page - I can explain ownership and use of images (copyright) - I can preview a web page that I create - I can explain the need of a navigation path - I can use hyperlinks to link to other people's work and explain the impact