De La Salle School Computing Curriculum Year 7

The five units of work will be delivered across the three terms. Term 3 may include content from Term 2, depending on the pac e at which each class progresses through the material

Year 7 Term 1	Year 7 Term 2	Year 7 Term 3
Using technology This unit introduces pupils to the essential skills needed to use school computer systems safely and effectively. Pupils will learn how to access the school network, organise digital work, and use key platforms such as Edulink, Microsoft Teams, and email. The unit also explores important online safety topics, including cyberbullying, password security, online grooming, and screen time, helping pupils to use technology responsibly and safely. **Inside a computer** This unit introduces Year 7 pupils to the main components of a computer system, including input and output devices, the CPU, motherboard, RAM, ROM, and storage devices. Pupils will learn how these parts work together and how hardware performance affects the speed and efficiency of a computer, building a strong foundation for future study in computing and digital technology.	**Controlling devices using Flowol** In Year 7, pupils are introduced to Flowol and the basics of computational thinking through flowcharts and algorithms. They learn how to design step-by-step instructions to solve problems, and how these can be translated into programs using Flowol. Pupils explore how outputs, inputs, and decisions work within a system, helping them understand how real-world processes can be controlled and automated. Studying these builds logical thinking, problem-solving skills, and a strong foundation for future programming and computer science learning. **Creating spreadsheets using Excel** Pupils are introduced to spreadsheets as a tool for organising, analysing, and presenting data. They learn how to use formatting to improve clarity, apply basic formulas and functions to carry out calculations, and use sorting and filtering to interpret and manage data effectively. This helps pupils develop essential digital literacy, logical thinking, and problem-solving skills, while building a strong foundation for more advanced data handling and real-world applications in later study.	**Scratch programming** pupils are introduced to programming using Scratch. They learn how to use events, sequencing, repetition, and selection to create interactive programs. Pupils apply these skills by designing and developing simple games, building their understanding of how code controls behaviour. This supports the development of computational thinking, problem-solving, and creativity, providing a strong foundation for future programming.
Knowledge, Skills and Understanding		
Using technology - Understand how to safely log on to and use the school computer network. - Know how to organise and save digital work using folders and files. - Use key school platforms such as Edulink, Microsoft Teams, and email effectively. - Understand the importance of strong passwords and online security. - Recognise risks such as cyberbullying, online grooming, and excessive screen time.	**Controlling devices using Flowol** - Understand what an algorithm is and how it is used to solve problems. - Know what a flowchart is and how it represents step-by-step processes. - Use Flowol to create and run simple programs. - Understand and use outputs in Flowol (e.g. turning devices on and off). - Understand and use inputs and decision-making within a program. - Design, test, and debug simple algorithms and flowcharts.	**Scratch programming** - Understand how events trigger actions in Scratch programs. - Use sequencing to ensure instructions run in the correct order. - Apply repetition (loops) to repeat actions efficiently. - Use selection (if/else) to make decisions in programs. - Create and develop a simple interactive game in Scratch.

- Develop responsible and safe behaviours when using digital technologies. **Inside a computer** - Identify and describe the main internal and external components of a computer system. - Understand the role of input and output devices. - Know the function of key hardware components including the CPU, motherboard, RAM, ROM, and storage devices. - Explain how computer components work together to process and store data. - Understand how the CPU affects the performance, speed, and efficiency of a computer system. - Develop the ability to relate hardware knowledge to real-world computer use.	- Develop logical thinking and problem-solving skills through programming tasks. **Creating spreadsheets using Excel** - Understand what a spreadsheet is and how it is used to organise and analyse data. - Use formatting tools to improve the presentation and readability of data. - Enter and edit data accurately within a spreadsheet. - Use basic formulas to carry out calculations (e.g. SUM, AVERAGE). - Understand and apply simple spreadsheet functions. - Use sorting to organise data in a meaningful way. - Use filtering to find and display specific information. - Develop problem-solving skills by applying spreadsheet tools to real-life scenarios.	- Test, debug, and improve programs to achieve the desired outcome. - Develop computational thinking and problem-solving skills through coding.
Assessment and Assessment Focus		

- Knowledge recall 1 – The assessment focuses on e-safety, including digital footprints and password security

- Wayground online quiz – focuses on pupils' understanding of input and output devices and their ability to correctly identify and classify them within computer systems

- Knowledge recall 2 – identifying and understanding input and output devices.

- Wayground online quiz – focuses on identifying and understanding key internal computer components and their functions.

- Wayground online quiz – focuses on pupils' understanding of algorithms and flowchart symbols, including sequencing, inputs, outputs, and decision-making

- Homework links – focuses on algorithms and flowcharts, including sequencing and flowchart symbols.

- End of unit assessments - Use of Technology – The assessment focuses on pupils' understanding of school digital systems, including school platforms, folder structure, and e-safety.

- End of unit assessment - Inside the computer – The assessment focuses on pupils' understanding of computer hardware in line with the KS3 National Curriculum, including input and output devices, the CPU, memory, and the motherboard, and their roles within computer systems.

Controlling devices using Flowol

- Wayground online quiz – The assessment will be based on pupils' understanding of key concepts in algorithms, including sequencing, flowcharts, inputs, outputs, and decision-making.

- Knowledge recall 1 – The assessment checks pupils' understanding of common flowchart symbols and their meanings, including start/end, process, input/output, and decision, and their ability to interpret simple flowcharts.

- Wayground online quiz – The assessment focuses on pupils' understanding of flowchart symbols and their meanings, and their ability to interpret simple flowcharts involving sequencing, inputs, outputs, and decisions.

- Knowledge recall 2 – The assessment focuses on identifying inputs and outputs in Flowol mimics.

- Knowledge recall 3 – The assessment focuses on pupils' understanding of algorithms, including sequencing, inputs, outputs, and decision-making, through a set of questions.

- Wayground online quiz – The assessment focuses on pupils' understanding of algorithms, including sequencing, flowchart symbols, inputs, outputs, and decision-making

- Homework link – The homework focuses on pupils' understanding of algorithms, including sequencing, inputs, outputs, and decision-making, through a set of questions.

- End of unit assessment – Controlling devices The end of unit assessment focuses on pupils' understanding of algorithms, including sequencing, inputs, outputs, and decision-making, through a set of questions.

Scratch programming

- Knowledge recall 1 – The assessment checks pupils' understanding of basic scratch techniques

- Wayground online quiz - focuses on understanding sequence, selection, and iteration in Scratch programming

- Knowledge recall 2 – Focuses on selection, iteration and selection techniques

- Knowledge recall 3 – Reading and understanding simple blocks of code

- Knowledge recall 4 – Reading and understanding blocks of code

- Knowledge recall 5 – Reading and understanding complex blocks of code

- End of unit assessment – Scratch programming The end of unit assessment focuses on understanding sequence, selection, and iteration in Scratch programming and how they are used to control the order of actions, make decisions, and repeat instructions in a program.