De La Salle School Computing Curriculum Year 9

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

Year 9 Term 1	Year 9 Term 2	Year 9 Term 3
Python programming In Year 9, pupils begin learning Python programming as a step up from the visual coding they used in Year 7 with Scratch and in Year 8 with EduBlocks. This transition helps bridge block-based and text-based programming, preparing pupils for more advanced coding in KS4. Pupils will learn the basics of Python, including inputs, outputs, variables, and if/else statements to create interactive programs. This builds confidence in writing real code while developing computational thinking and problem-solving skills. **Spreadsheets** The Year 9 spreadsheet unit builds on skills developed in Year 7 and introduces more advanced features to prepare pupils for the KS4 IT course. Pupils will develop their ability to use spreadsheets effectively by working with cells, applying formatting, using formulas and creating charts to present data. This unit strengthens digital literacy and problem-solving skills while introducing industry-standard techniques used in further study and real-world applications.	**Digital citizenship** The Year 9 Digital Citizenship unit helps pupils understand how to use technology safely, responsibly and effectively in the modern digital world. Pupils will explore topics such as fake news, social media, cyber security and online behaviour, alongside creating a Human-Computer Interface (HCI) as a practical project that brings together their prior learning. This unit supports the KS3 National Curriculum by developing digital literacy, critical thinking and understanding of the social impact of technology, and it links directly to E-Safety Week. It also prepares pupils for the KS4 IT course by combining skills from both Computing and IT. **Computational thinking** This unit introduces students to computational thinking, focusing on abstraction, decomposition, pattern recognition, and algorithmic thinking. Students will apply these concepts using flowcharts to design and analyse solutions before implementing them using real-world problem-solving scenarios, demonstrating the use of programming constructs such as selection, iteration, and sequence to develop structured algorithms.	**Business enterprise** This Year 9 Enterprise unit, inspired by *Dragons' Den*, develops pupils' creativity, digital literacy, and business understanding in line with the KS3 National Curriculum. Pupils explore local businesses to identify a need, carry out market research using spreadsheets and charts, and develop their own business idea with a USP. They create branding and marketing materials using Canva and present a final pitch to the class. The pitching element helps develop confidence and presentation skills across other subjects, while also keeping pupils engaged who have not chosen IT or Computing as an option. The unit builds key Microsoft Office and communication skills that support progression into KS4 and future careers.
Knowledge, Skills and Understanding		
Python programming	**Digital citizenship**	**Business enterprise**

- Use Python to write simple programs with inputs and outputs. - Understand and use variables to store and manipulate data. - Use if/else statements to create basic decision-making in programs. - Develop problem-solving and computational thinking skills. - Read, understand, and debug Python code. **Spreadsheets** - Understand how spreadsheets are used to organise and analyse data. - Use and manage cells effectively, including formatting and structure. - Apply formulas to perform calculations and solve problems. - Create and interpret charts to present data clearly. - Develop accuracy and attention to detail when handling data. - Build on prior knowledge from Year 7 and prepare for KS4 IT skills.	- Understand key issues in digital citizenship, including fake news, social media use, and cyber security. - Recognise how online behaviour can impact individuals and society. - Develop awareness of how to stay safe and responsible online (linked to E-Safety Week). - Design a Human-Computer Interface (HCI) as a practical project. - Apply knowledge from Computing and IT to create an effective digital product. - Develop critical thinking, problem-solving, and digital literacy skills. - Prepare for KS4 IT by combining theory and practical application. **Computational thinking** - Understand decomposition, pattern recognition, abstraction, and algorithms - Know how search and sort algorithms work and why they matter - Use selection (if/else) to make decisions in programs - Read and create simple flowcharts - Apply logical thinking to solve problems - Design and evaluate basic algorithms	- Understand what a business is and how it meets customer needs - Identify a gap in the local market through basic research - Use spreadsheets to input data and create simple charts for market research - Develop a business idea with a clear USP (unique selling point) - Create branding and marketing materials using Canva Plan and deliver a simple business pitch presentation - Apply basic digital, communication, and presentation skills effectively
Assessment and Assessment Focus		

Python programming

- Knowledge recall 1 – Assess understanding of key terms of the unit or work.
- wayground online quiz – checks understanding of basic Python programming, including variables, input/output, data types, and simple if/else statements, as well as the ability to read and understand code.
- Knowledge recall 2 – Reading and understanding the different constructs of coding as well as revisiting algorithms from year 8.
- Homework links – Pupils will use a knowledge organiser to create a revision document. They will also complete the attached questions to check their understanding and prepare for their upcoming assessment.
- End of unit assessment – python – assesses pupils core ideas such as variables, inputs and outputs, data types, and simple if/else logic, as well as the ability to read code and identify what it does or predict its output.

Spreadsheets

- wayground online quiz – checks understanding of basic spreadsheet skills taught in Year 7. It helps the teacher determine whether pupils are ready to progress to more advanced spreadsheet features.
- Knowledge recall 1 – focuses on pupils understanding of formatting features within a spreadsheet.

Digital citizenship

- Knowledge recall 1 – Assess understanding of key terms of the unit of work.
- Knowledge recall 2 – checks understanding of digital footprint, digital citizenship and fake news.
- wayground online quiz – checks understanding of online threats and how to prevent them.
- Homework link – Pupils will use a knowledge organiser to create a revision document. They will also complete the attached questions to check their understanding and prepare for their upcoming assessment.
- End of unit assessment – Digital citizenship – Assess pupils' understanding of the key principles of being a responsible digital citizen, as well as their knowledge of how to stay safe when using the internet.

Computational thinking

- End of unit assessment – computational thinking – assessment checks pupils' understanding of key computational thinking concepts, including algorithms, search and sort methods, flowcharts, and selection (if/else).

Business enterprise

- wayground online quiz – checks understanding of basic spreadsheet skills taught in prior unit
- wayground online quiz – checks understanding of logo design and business identification
- End of unit assessment - Pupils will be assessed on their final PowerPoint presentation, where they pitch their business or product idea to the Dragons. They will be marked on how clearly they communicate their idea, the quality of their business proposal, and how well they justify their investment request, USP, and product benefits. They will also be assessed on the use of supporting materials such as their logo, business plan, and understanding of key concepts like intellectual property.

- Knowledge recall 3 – focuses on pupils understanding of formulas and functions. - wayground online quiz – checks understanding of spreadsheet formulas and functions, including basic calculations and using functions like SUM and AVERAGE. - Homework link – Pupils will use a knowledge organiser to create a revision document. They will also complete the attached questions to check their understanding and prepare for their upcoming assessment. - End of unit assessment – Spreadsheets – The assessment focuses on key spreadsheet concepts, such as formulas, functions, cell references, and basic calculations, as well as their ability to recognise correct methods and interpret spreadsheet outputs.		