De La Salle School Computing Curriculum Year 8

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 8 Term 1	Year 8 Term 2	Year 8 Term 3
Coding with Edublocks In Year 8, students will use EduBlocks to build on their Scratch experience from Year 7 and prepare for Python in Year 9 by learning about input and output, selection, iteration, and creating simple projects. This helps them understand key programming ideas in a more structured way and supports their progression from block-based coding to text-based programming. **Multimedia project** Students will complete a multimedia unit to prepare for KS4 IT by learning how to read scenarios, identify user requirements, and plan a website using design tools. They will then create a website using PowerPoint, helping them build key planning and design skills needed for Year 10.	**E. Safety** The Year 8 E-Safety unit helps pupils understand how to stay safe and responsible online. Pupils will explore topics including online safety, sexting and the Online Safety Act, helping them recognise risks and make informed decisions. The unit supports the KS3 National Curriculum by developing safe, responsible and confident users of technology. **Binary and Boolean logic** Students study binary and Boolean logic to understand how computers store data and make decisions. They will learn about binary numbers, binary addition, Boolean logic, and logic gates, supporting the KS3 National Curriculum by developing their understanding of digital systems and how computers process information.	**Software and networks** Pupils will develop their understanding of different types of software and how computer networks enable devices to communicate and share data. They will explore key concepts that provide a foundation for future study in Computing and Information Technologies. To consolidate their learning, pupils will create a Human-Computer Interface (HCI) revision resource, applying their knowledge of interface design and user needs. **App development** The Year 8 App Development scheme introduces pupils to designing and creating interactive digital products. Pupils will explore scenario reading, user requirements and design tools before building an app prototype using PowerPoint hyperlinks, external links and master slides. The unit supports the KS3 National Curriculum by developing creativity, problem-solving and digital literacy skills while introducing concepts used at KS4 IT.
Knowledge, Skills and Understanding		
Coding with Edublocks - Understand how programs use input and output - Understand how selection (if/else statements) is used to make decisions - Understand how iteration (loops) is used to repeat actions - Develop skills in using EduBlocks to create simple Python-style programs	**E. Safety** - Understand how to stay safe and responsible online. - Recognise the risks and consequences of sexting and sharing images online. - Understand the purpose of the Online Safety Act. - Identify safe and unsafe online behaviours. - Know how to report concerns and protect personal information online.	**Software and networks** - Understand the purpose and characteristics of different types of software, including system and application software. - Understand how computer networks connect devices and enable communication and data sharing.

- Apply programming concepts to build a simple project - Build on prior knowledge from Scratch (Year 7) - Prepare for Python programming in Year 9 **Multimedia project** - Understand how to read and interpret project scenarios - Identify and explain user requirements from a given scenario - Use design tools to plan a website layout and structure - Develop skills in creating a digital product using PowerPoint - Apply planning and design decisions to meet a client/user need - Build understanding of the KS4 IT approach to planning and development	- Develop responsible digital communication and decision-making skills. **Binary and Boolean logic** - Understand how computers use binary numbers to store data - Perform simple binary addition calculations - Understand the meaning of Boolean logic - Recognise and use basic logic gates such as AND, OR, and NOT - Develop problem-solving and logical thinking skills - Understand how these topics link to how computers process information - Build foundational knowledge for KS4 Computer Science	- Identify common networking hardware and explain the basic functions of network components. - Apply knowledge of Human-Computer Interface (HCI) design to create an effective revision resource. Develop digital literacy, communication and presentation skills through the creation of digital content. **App development** - Understand how apps are designed for specific users and purposes. - Identify and interpret user requirements from a given scenario. - Use design tools such as mind maps and visualisation diagrams to plan ideas. - Create an interactive app prototype using PowerPoint. - Apply hyperlinks, external links and master slides effectively. - Develop creativity, problem-solving and digital literacy skills. - Prepare for KS4 IT by using industry-style planning and design techniques.
Assessment and Assessment Focus		

Coding with Edublocks

- Knowledge recall 1 – The assessment focuses on Edublock and basic programming techniques
- Knowledge recall 2 – Reading and understanding the different constructs of coding using print and iteration
- Knowledge recall 3 – Reading and understanding the different constructs of coding using the turtle code
- 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 assessments - Edublocks – The assessment focuses on pupils' understanding of applying input/output, selection, iteration, and basic project design using Python-style blocks.
- 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.

Multimedia project

Binary and Boolean logic

- Knowledge recall 1 – The assessment focuses on prior learning from term 1. This looks at the inside of the computer unit of work.
- Wayground online quiz – The assessment focuses on binary to denary number conversion
- Knowledge recall 2 – Denary and binary number conversion
- Wayground online quiz – Assesses pupils understanding of binary conversion
- Knowledge recall 3 – Denary and binary number conversion
- Wayground online quiz – Assesses pupils' understanding of binary conversion, including converting denary numbers to binary and binary numbers to denary.
- End of unit assessment – Boolean logic and software and networks – This is a combined assessment covering binary and Boolean logic, as well as software and networks.

Software and networks

- Knowledge recall 1 – This checks pupils' understanding of input and output devices from the Year 7 Inside a Computer unit to ensure they are ready to progress onto Software and Networks.
- Wayground online quiz – Asses knowledge of hardware and software, including input, output and storage devices and their functions
- Knowledge recall 2 – Assesses pupils understanding of the difference between operating systems and software.
- 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.

App development

- Knowledge recall 1 – The assessment focuses on Boolean and logic gates which was taught in the last term.
- Knowledge recall 2 – focuses on logic gates and software and networks
- Knowledge recall 3 – focuses on prior learning as well as design tools for app development
- Knowledge recall 4 – focuses on design tools and visualisation of app.

- Knowledge recall 1 – The assessment focuses on pupils understanding of target audience and purpose - Knowledge recall 2 – The assessment focuses on understanding of design tools - 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 – Multimedia – The assessment focuses on knowledge of key terms, design features, audience needs, and the purpose of planning tools used in multimedia projects.		