



Computing Curriculum Intent

Our Computing curriculum is designed to equip students with the digital literacy, computational thinking, and creative skills needed to thrive in an ever-evolving technological world. Across Key Stage 3, our intent is to build confident, responsible, and capable digital citizens who can navigate the digital landscape ethically, safely, and creatively.

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| In | Year | 7: | Digital | Citizens |
| We introduce students to the foundational principles of responsible and safe use of technology. Through this unit, students develop an understanding of digital footprints, online safety, cyberbullying, and data protection. The focus is on fostering critical awareness of how digital behaviour affects personal and societal well-being — laying the groundwork for ethical computing practice. | | | | |
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| In | Year | 8: | Mission | Compute |
| Students explore the core concepts of computer science and begin to apply computational thinking to real-world scenarios. This unit encourages problem-solving, logic, and creativity through practical programming challenges, often using block-based and text-based programming languages. Students learn how computers work, develop algorithms, and begin creating purposeful code — deepening their understanding of computer systems and programming. | | | | |
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| In | Year | 9: | Nineth | Issue |
| The focus shifts toward creative digital media production. Students use Photopea, an industry-standard online image editor, to develop their skills in digital design and manipulation. This unit enables students to explore layout, composition, layers, and file formats — blending creativity with technical precision. It also introduces them to concepts of copyright, image ethics, and media literacy, reinforcing their digital citizenship in a more applied context. | | | | |

Implementation

In KS3, students study Computing for two 60-minute lessons per fortnight on a carousel with technology subjects for 8 lessons in total per year group. The course is delivered in line with our long-term plans. Alongside learning key topic areas, such as application software skills, coding in Scratch, Python, Computer Systems, Computer Software as well as learning key skills in preparation for choosing Creative Media Production at Key Stage 4.

At the end of each topic, students will be RAG rated based on set criteria which will also inform feedback to the class as a whole. Feedback will be provided on their assessments and pupils will be given opportunities to re-do the test and eradicate any misconceptions before moving on to the next topic.

Principles



All students will study the content outlined in the scheme of learning which has been constructed based on the following principles.

Entitlement: The planned curriculum at Irlam and Cadishead Academy includes a breadth of knowledge relating to computer science, information technology, and digital literacy. Declarative knowledge ('knowing that') and procedural knowledge ('knowing how') are identified, sequenced, and connected in the curriculum. Students will be taught two programming languages (Scratch and Python).

Coherence: Taking the National Curriculum as its starting point, our curriculum is carefully sequenced so that powerful knowledge builds term by term and year by year. For example, Year 7 cover Scratch which progresses to Python Programming in Year 8 and 9. Students learn to use debugging habits effectively e.g., comparing code to find differences, evaluating program to explain how it has been able to solve a problem.

Mastery: We ensure that foundational knowledge, skills, and concepts are secure before moving on. Pupil's revisit prior learning and apply their understanding in new contexts using retrieval practice tasks. Our aim is that students understand a key foundation of knowledge thoroughly before exploring more complex ideas.

Adaptability: Teachers adapt the curriculum for their classes and students. This includes adaptations for SEND and appropriate challenge to ensure a positive learning environment where students are confident to try even when they are unsure. The curriculum allows the core elements of logic and logical thinking, algorithms and algorithmic thinking, patterns and pattern recognition, abstraction and generalization, and evaluation, to be confidently understood. For example, all students are taught the same programming languages Scratch and Python, but scaffolding allows them to be accessible for all.

Representation: All our students should see themselves in our curriculum, and our curriculum takes all our students beyond their immediate experience. Digital technology is driving global changes. Our aim is to ensure that the students navigate these changes effectively and safely, which in turn requires a significant understanding of digital literacy, information technology and computer science. This knowledge is crucial if business, industry, and individuals are to exploit the opportunities offered by the new revolution. We relate this to E-Safety, how to distinguish which sites are safe and accurate/ how to check and how to keep your data safe online.

Education with character: We provide extra curriculum activities such as eSports, coding and creative media ensure our students have access to a range of topics and creating digital artifacts. Computing also ensures that students become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world. This includes using up-to-date office programs and utilizing web-based software.