Computing
Year 7

Irlam and Cadishead Academy
The best in everyone™
Part of United Learning

OVERVIEW

In Year 7 students develop a range of skills that allow them to get a better understanding of different sectors of computing. Students will begin to develop their skills in three main areas: Digital Literacy, ICT and Computer Science. Year 7 students will be taught how to use computers and online features safely, making them aware of the dangers that can arise and using social media responsibly. Students will also develop their creative digital skills by developing a range of products with a focus on Microsoft Applications as well as Scratch.

Autumn

Topic 1 – Impact of Technology

This unit has been designed to ensure that learners are given sufficient time to familiarise themselves with the school network. It also allows the teacher to discuss appropriate use of the school network, and to update and remind learners of important online safety issues. Whilst completing this unit, learners will also learn how to use presentation software effectively. In terms of online safety, this unit focuses on respecting others online, spotting strangers, and the effects of cyberbullying.

Topic 2 – Gaining Support for a Cause

During this unit, learners develop their understanding of information technology and digital literacy skills. They will use the skills learnt across the unit to create a blog post about a real-world cause that they would like to gain support for. Learners will develop software formatting skills and explore concerns surrounding the use of other people's work, including licensing and legal issues.

Assessment:

End of unit assessment (online or written)

Short questions recalling learnt knowledge.

From this assessment Whole Class Feedback takes place. Any common misconceptions will be re-taught.

Spring

Topic 3 – Programming 1
This unit is the first programming unit of KS3. The aim of this unit and the following unit ('programming 2') is to build learners' confidence and knowledge of the key programming constructs. Importantly, this unit does not assume any previous programming experience, but it does offer learners the opportunity to expand on their knowledge throughout the unit. The main programming concepts covered in this unit are sequencing, variables, selection, and count-controlled iteration. All of the examples and activities for this unit use Scratch 3.

Topic 4 – Networks
This unit progresses students' knowledge and understanding of networks and associated hardware. The unit will establish a foundation understanding of how data is transmitted across networks, as well as exploring the factors that can affect performance. The unit will spend time focussing on the internet and services provided over the internet.

Assessment:

End of unit assessment (online or written)

Short questions recalling learnt knowledge.

From this assessment Whole Class Feedback takes place. Any common misconceptions will be re-taught.

Summer

Topic 5 – Programming 2
This unit begins right where 'Programming I' left off. Learners will build on their understanding of the control structures' sequence, selection, and iteration (the big three), and develop their problem-solving skills. Learners will learn how to create their own subroutines, develop their understanding of decomposition, learn how to create and use lists, and build upon their problem-solving skills by working through a larger project at the end of the unit.

Assessment:

End of unit and End of Year assessment (online or written)

Short questions recalling learnt knowledge.

From this assessment Whole Class Feedback takes place. Any common misconceptions will be re-taught.

Useful resources for supporting your child at home:

Seneca, BBC Bitesize, Idea

Homework:

Project based in collaboration with other subject areas.