Computing
Year 8

Irlam and Cadishead Academy
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OVERVIEW

In Year 8 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 3 main areas: Digital Literacy, ICT and Computer Science. The students build upon previous skills learnt to develop and enhance their knowledge and understanding. For example, further develop Python skills from Year 7 to Year 8. Students with further develop their graphic skills and understanding of iMedia theories.

Autumn

Topic 1 – Business & Enterprise
This topic will give students an insight the marketing mix and budgeting for their own business and prepare a pitch which they will present to the class in small groups. It s intended to give a flavour of how ICT is used whilst setting up their own business.

Topic 2 – Layers of Computers
This unit takes learners on a tour through the different layers of computing systems: from programs and the operating system, to the physical components that store and execute these programs, to the fundamental binary building blocks that these components consist of.
The aim is to provide a concise overview of how computing systems operate, conveying the essentials and abstracting away the technical details that might confuse or put off learners. The unit assumes no prior knowledge. There are, however, links to the 'Representations' units taught in Years 8 and 9 and the 'Networks' units taught in Years 7 and 8.

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 – Modelling
The spreadsheet unit for Year 8 takes learners from having very little knowledge of spreadsheets to being able to confidently model data with a spreadsheet. The unit uses engaging activities to progress learners from using basic formulas to writing their own COUNTIF statements. This unit will give learners a good set of skills that they can use in computing lessons and in other subject areas.

Topic 4 – Python
This unit introduces learners to text-based programming with Python. The lessons form a journey that starts with simple programs involving input and output, and gradually moves on through arithmetic operations, randomness, selection, and iteration. Emphasis is placed on tackling common misconceptions and elucidating the mechanics of program execution. A range of pedagogical tools is employed throughout the unit, with the most prominent being pair programming, live coding, and worked examples. The Year 7 Programming units are a prerequisite for this unit.

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 – Creative iMedia
This unit will give students an insight into our KS4 course. Students will looks at the following:
- Propps Characterisation Theory
- Levi-Strauss (Binary Opposites)
- Genre-recognise genres and how they form conventions.
- Analyse the relationship between audience, purpose and product

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:	**Homework**:
Seneca, BBC Bitesize, Idea	Project based in collaboration with other subject areas.