



Year 9 Curriculum Guide

Subject: **Computer Science**

Subject Leader: **Ms. K. Williams**

Method of assessment

Pupils are formally assessed on a termly basis (every 6 weeks):

- ✓ **1 graded end of term test**
- ✓ **1 graded home work**
- ✓ **1 graded class work**

Formal methods of assessment may include: **written tests, practical activities, quizzes, and presentations**

Overview

The KS3 Computer Science programme of study introduces pupils to the concept of computational thinking and creativity in an ever changing world. The scheme of work allows pupils to explore concepts such as: **computational thinking, problem solving, abstract thinking, data representation, investigate how digital systems work and how to put this knowledge to use through programming.**

	Autumn Term	Spring Term	Summer Term
1st Half	✓ Binary Logic – <i>Introduction Binary Logic, Binary conversions, Binary Addition and Subtraction, Logic gates (AND, NOT, OR)</i>	✓ Programming – <i>Python 1 – Logic vs Syntax errors, Use a programming language - basic maths operators, Data Types, Using variables, values, expressions, assignment statements, Introduction to Programming constructs – Sequence, Selection and Iteration</i>	✓ Python Project - <i>Design a program to perform a function, Create the program, Test the program, Documenting the design of the program</i>
2 nd Half	✓ Networking – <i>Introduction to networks, Advantages and Disadvantages of networks, Equipment required for a network, LAN/WAN, Features of the BUS, RING and STAR topologies, Advantages of the BUS, RING and STAR topologies</i>	✓ Programming – <i>Python 2 – Programming constructs – Sequence, Selection and Iteration, Functions, Using Lists/Arrays, Coding Practice</i>	✓ End of Year Examination ✓ Summer Project

Text Book/Reference/Resource guide:

- ✓ School Network/Shared Area/Google Drive
- ✓ BBC Bitesize KS3 - <http://www.bbc.co.uk/education/subjects/zvc9q6f>
- ✓ BBC Bitesize GCSE - <http://www.bbc.co.uk/education/subjects/z34k7ty>
- ✓ Teach ICT - <http://teach-ict.com/>
- ✓ W3School – Programming - www.w3schools.com
- ✓ Computer Science Revision Guides and Workbooks