Computing GCSE - Year 10

Syllabus: J275

Key Contact: Mr Adams – am@kingdown.wilts.sch.uk

This course gives students the opportunity to discover how computer technology works and to take a look at what goes on “Behind the Scenes”

Unit A451: Computer Systems and Programming
This unit covers the body of knowledge about computer systems on which the examination will be based. Topics include fundamentals of computer systems, hardware, software, representation of data, databases, computer communication and networking.

Unit A452: Practical Investigation
An investigative computing task, which assesses the following: Research, technical understanding, analysis of problem, historical perspective, use of technical writing skills, recommendations/evaluation.

Unit A453: Programming Project
Students will need to understand standard programming techniques, be able to design a coded solution to a problem, identify test procedures and develop the code.

Candidates will need to create suitable algorithms, input and output formats, identify suitable variables and annotate the developed code. Finally students test their solutions in order to show functionality and how it matches the design criteria.

Assessment
Once each unit has been completed, students take an end of unit test. All results are recorded in Go4Schools.

Useful Study Support Resources
Kingdown VLE website
GCSE Computing by Susan Robson,
OCR Computing by Sean O’Byrne,

Year 10 expectations:

Application
• Assessment Tests - Students need to revise specific topics previously taught in that term. Topics vary from binary addition to specifications of a hard drive. There are six tests in total.

Organisation
• Homework – Two hours of homework is set every week. It has to be handed in by the deadline otherwise students have to attend catch-up sessions.

Independence
• Students work from the VLE and GCSE Computing books (Look to Useful Study Support Resources). Students have to revise and learn the topics of that term.

How can students improve their knowledge and skills?

• Remote Desktop Connection – This allows students to access work and programs that would normally only be accessible from the school network. Ask any ICT/Computing teacher about how to connect.

• Kingdown VLE – All of the resources/documentation required for this course is fully available from the Kingdown VLE. All students have usernames and passwords to get onto this website.

• Code Academy Website – This site is an online educational platform that offers free coding classes.

• Learn how to use Visual Basic, become familiar with the tools, the menus and the applications. Set yourself challenges and programs to solve. Coding is all about practice, practice, practice. Other programming languages to learn for this course are HTML and Python.