

AUTUMN 1

8.1 Algorithms and Flowcharts - A basic introduction to sequencing and following instructions. This includes completing simple numerical sequences which is followed on by complex sequences such as instructions for traffic light signals.

Prior Learning
Flowcharts was introduced in Year 7 during the Games Creation Topic- This then develops the algorithms looking at the correct symbols and other algorithms including key terms.

AUTUMN 2

8.2 Game Creation in Kodu - Learners will develop a range of key skills which include drawing and sculpting a world, adding character and objects. The use of When and Do instructions to control characters and objects including the use of paths and pages. Once learners have built their skills they are required to design, create, test and evaluate their own game.

Prior Learning
Students may have used similar applications or software such as Scratch but this may be the first time they have had access to Kodu.

SPRING 1

8.3 Programming with Edublocks - Learners will be performing block based programming and using Edublocks as a bridge between using Scratch in Y7 and using Python a text based language in Y9.

Prior Learning
Students may have used similar applications or software such as Scratch/Kodu which are block based programming languages.

SPRING 2

8.4 Spreadsheet Modelling - 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.

Prior Learning
This may be the first time that students have used spreadsheets, this unit is an introduction to building the skills and knowledge on how to create and use spreadsheets.

SUMMER 1

8.5 Python Programming using Turtle - This unit gives learners a basic introduction to programming through using HTML and Python. This includes drawing shapes through the use of coding, creating simple codes as well as using conditional formatting and looking at different data types.

Prior Learning
This will be the first time students use and create text based programs, previous knowledge and skills have been using block based languages e.g. Scratch, Kodu and Edublocks.

SUMMER 2

8.6 Living in a digital society - This unit gives learners a basic introduction to living in a digital society. This includes data that we store, protection of passwords, government legislation, location services, artificial intelligence, and copyright issues.

Prior Learning
Students will have gained some knowledge on computer security and ethical concerns regarding the use of computers in Y7.

CAREERS LINKS

Cyber security, ICT teacher, graphic designer, games developer, web programmer, office worker, accountancy.

CHARACTER LINKS

Across the academic year, students are encouraged to develop respect for their own and peers' work (moral virtues), as well as confidence and perseverance to ascertain new skills (performance virtues).

KEY ASSESSMENT DATES

All students at KS3 complete an end of unit assessment for the topic being studied, assessing students' knowledge, skills and understanding. This is typically every 6 weeks across the academic year.