



# COMPUTER SCIENCE KEY STAGE 3

## MODULES/UNITS IN YEAR 7

### Standard Ways of Working (10 hours)

In this unit students learn about the basic ways of using a computer and staying safe on the Internet

### Spreadsheets (6 hours)

In this unit students learn how to use Spreadsheets to perform calculations and automate tasks

### Databases

In this unit students learn the importance of databases and how they function

### Programming Concepts (19 hours)

In this unit Students learn the fundamental structures and knowledge required to be able to write their own computer programs

### Fundamentals of Computer Systems (12 hours)

In this unit students learn how th computer functions

### Game Development (15 hours)

In this unit Students use their programming skjill to write their own games

## MODULES/UNITS IN YEAR 8

### Data representation (13 hours)

In this unit Students learn about how data is represented by the computer e.g. binary

### Practical Programming (22 hours)

In this Unit Students are introduced to programming in a high level language such as visual basic

### Databases (12 hours)

In this Unit Students learn to use the more advanced functions of databases

### Web Design (16 hours)

In this unit students learn how to code and design web pages

### BBC Microbit (7 hours)

In this unit students get the opportunity to use microelectronics to further their understanding of how computer systems function

## PROJECTS/SCHEME OF WORK/TOPICS

## DURING

Create a spreadsheet model

TERM 1

Create their own database

TERM 2

Write a number of programs using Scratch

TERM 2

Create their own game

TERM 3

Create a number of programs using Visual Basic.Net

TERM 4

Code a website

TERM 5

Program a microcomputer

TERM 6

## OTHER INFORMATION

The Computer Science Department aims to offer a broad and balanced curriculum at KS3 with the emphasis being on programming and computer systems. We believe this offers students an engaging curriculum which prepares them well for the future and is far more challenging and suitable for our students than an ICT based curriculum