**KS2** – Algorithms, Scratch E-Safety and Networks
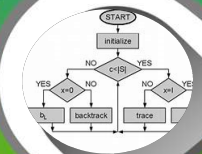
**COMPUTER SCIENCE**

# YEAR 7

### 7.1 Digital Literacy

How you safely use the computer networks that you need for learning and protect yourself online.

### 7.2 Algorithms (CS)

All programs are a precise set of step by step instructions. This starts with flowcharts, the shapes in logo and ends with some visual coding in Edublocks

### 7.3 Computers: Past, Present & Future (IT)

Create a presentation on the three computer era's (Babbage, to Microsoft/Apple and then today's Internet era) and then look at employment in the field

### 7.4 Inside the machine (CS)

What is a digital machine and how does it works and then some Google Sketchup

# YEAR 8

### 8.1 The Internet (IT)

Build a timeline and explain the milestones in the history of the web/internet.

### 8.2 Python 1 (CS)

An introduction to text based coding and learning the basics of print, if/else, loops and arrays.

### 8.3 Spreadsheets (IT)

Learn the use of a wide range of spreadsheets formulae in a range of examples and then apply the skills into a single project.

### 8.4 The world of Apps (CS)

You will make your own App and in it you will show your understanding of how a computer works, the electronics that control it and what is in it.

**YEAR 9**


INFORMATION TECHNOLOGY

### 9.2 Python 2 (CS)

Learn a more advanced set of Python skills and build your own game to showcase your skills

### 9.4 The role of Computer Games (CS)

Build basic games on a Microbit and then understand the development of the games Industry.

### DIT L2 (IT)

This BTEC course has two pieces of coursework and one exam. The first piece of coursework is designing an information system. The second is making a spreadsheet and then there is an exam.

## GCE (A Level)

### BTEC L3 IT (IT)

This very successful course has 4 units. 1 on social media in business, 1 on the use of databases, 1 on the use of spreadsheets for a real enduser and 1 overall exam.

### 9.1 Recipe Site (IT)

Design a website for a target audience with your own recipes and build a cost model for running it as a business.

### 9.3 Digital Campaigning (IT)

Build a logo and video to support fundraising and awareness for a charity or cause

## GCSE

### GCSE Computer Science (CS)

You will do 2 exams: 1 exam is all about coding in Python

The other exam has 5 questions on:
   Algorithms
   Data (Binary / Hex)
   Hardware
   Networks
   Ethics and the Law

### GCE Computer Science (CS)

You will do 2 exams (40%) each and a piece of coursework (20%). The coursework can be in any language but, must be a solution for an enduser. The exams have 1 theory and 1 about coding.