# KS3 Computing Curriculum Learning Journey

GCSE Computer Science

Year 10 Options

BTEC Digital Information Technology

## Year 9

**Memory and Storage**: pupils will learn about the different types of memory such as RAM and ROM, and the part they play in computer systems.

**Data Representation:** in this unit pupils will build on the knowledge gained in year 8 to complete binary, denary and hexadecimal conversions, as well as how these number systems play a part in sound and images.

**Security:** pupils will look into the internal and external threats to data and digital systems and research the measures that can be put into place to prevent these threats from happening.

**Boolean Logic:** pupils will build on the knowledge gained on Booleans from year 8 and use this to complete truth tables.

**Chatbot Game & Python Programming:** pupils will build on the skills learned in year 8 to create their own Chat Bot program.

**Spreadsheets:** pupils will look at the use of pivot tables to create graphs, which will then become a dashboard to summarise data.

**Design and Interactive Element:** pupils will learn about user interfaces and how they are used. Pupils will then plan and create their own interface for a scenario.

**Interactive Element:** this unit will allow pupils to create an interactive PowerPoint that will allow people to navigate the pages by clicking buttons.

**Binary and Data Representation:** pupils will learn about the science behind the computer, learning how binary numbers 0 & 1 are used as the language that computers understand.

**Python:** in this unit, pupils will learn how to code and write basic computer programs.

**FLOWOL:** this unit will introduce pupils to control technology and the impact it has on everyday life at home, school and outside.

**Controversial Issues:** this unit will get pupils thinking about how trustworthy the information they find online is. Pupils also look at Boolean logic and how this can affect the internet searches they do.

## Year 8

**Spreadsheets:** pupils will learn how to use spreadsheets for numerical calculations and predictions using formulas. You will develop formatting skills, graph creation and modelling by creating and developing your theme park spreadsheet model.

**Graphics:** pupils will create a logo for a theme park. This will extend your skills of using fireworks and will get you to think about what a logo is and what makes an effective logo.

## Year 7

**Graphics:** pupils will research a variety of zoo logos before getting the opportunity to create their own

**Computer systems:** in this unit, pupils will look at the difference between hardware and software, as well as looking at different types of input, output and storage devices. This unit also covers the different types of networks.

**KODU:** pupils will learn about sequence and design, which are part of programming. In addition, they will create their own game, including the landscape and a scoring system.

**Spreadsheets:** pupils will be introduced to Excel in this unit, and learn key skills such as formulae, formatting and the key features of excel.

**E-Safety:** in this unit, pupils will learn how to stay safe online, as well as explore other esafety topics such as social media, cyberbullying and phishing.

**Logins, Expectations and File Management:** the first couple of lessons will be spent getting logins and folders set up, as well as going over our expectations.