

# KS3 COMPUTING, COMPUTER SCIENCE AND Enterprise



## ST AUGUSTINE'S LEARNING JOURNEY



Continue your lifelong love of learning and personal development

### GCSE Computer Science

Getting to grips with the future by learning about how a computer works ranging from programming, networking, security, binary & the bigger picture.

### BTEC Enterprise

A BTEC qualification which covers the main elements of Enterprise including finance, marketing and business operations.

### Computer Systems

**Software & The Operating Systems**  
The 2 main types of software, utilities and application software are investigated in this unit. The role of the operating system is looked at and how they work alongside installed software and hardware devices.

### Networks and the Internet

**The Internet, Network Security Threats, Network Security Measures & Censorship and Surveillance**

The internet and how it works is investigated in this unit. The various threats to network security and how these can be prevented and overcome are looked at alongside how the use of the internet is monitored.

### Eduqas Vocational award in ICT

A qualification which enables learners to develop knowledge & understanding of the ICT sector & develop practical skills in design, spreadsheets & databases.

### Programming Techniques and Creating Programs – Python

**Data Types, Operators, Variables, Inputs and Outputs, Sequence, Selection & Iteration**  
An introduction to the computer programming software Python. The key components of computer programming using the software Python to demonstrate how programs are constructed.

### Data Representation

**Images, Sound & Compression**  
This unit of work looks at how images and sound on computer devices are represented using binary numbers. The compression of files to maximise storage on devices is studied within this unit.

### Data Representation

**Logic**  
A look at how logic gates are used within computing. How logic gates represent Boolean operators and how they are used within computing.

### Collecting and Presenting Data

**Databases**  
An introduction to Databases and how they are used. The software Microsoft Access is used to demonstrate how to create a database and how the data can be integrated.

### Enterprise

**Enterprises, Finance & Marketing**  
An introduction to enterprise & skills of entrepreneurs. A look at the financial side of business and how businesses need to operate within set financial boundaries. Marketing and how businesses advertise their businesses and products

### Assessment 1

### Programming Techniques and Creating Programs – Python

**Data Types, Operators, Variables, Inputs and Outputs, Sequence, Selection & Iteration**  
An introduction to the computer programming software Python. The key components of computer programming using the software Python to demonstrate how programs are constructed.

### Assessment 2

### Algorithms

**Linear Search, Binary Search, Bubble Sort, Insertion Sort**  
An introduction to algorithms and how the different algorithms are used within Computing with the emphasis on searching and sorting.

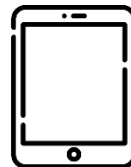
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### Collecting and Presenting Data

**Target audience, Collecting Data, Analysing Data, Presenting Data**  
This unit looks at the important element within Computing of collecting data before analysing and presenting the data in a suitable format.

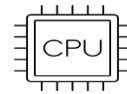
### Collecting and Presenting Data

**HTML & Web-Design Software**  
This unit looks at HTML as a programming language for web design. Web design principles are looked at using the software Notepad ++ where a website will be designed and created using HTML code.



### Computer Systems

**The CPU, Memory, Storage, Internal Storage & External Storage**  
Further investigation into the inner workings of a computer and how files and programs are saved on different devices. Input, output & storage devices are examined.



### Assessment 1

### Networks and the Internet

**Types of Network, Wired and Wireless Networks & Network Topologies**  
The different types of networks are looked at within this unit and links drawn to how networks are used in the home and in workplaces. The increasing use of wireless networks and the advantages and disadvantages of these.

### Assessment 2

### Computer Systems

**Data, Inside a Computer, Input Devices & Output Devices**  
Data is a theme that is used throughout Computing. This unit of work looks at data and what it is. The components inside of a computer system are examined as well as the outer peripherals that are used on various computer equipment.

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### Programming Techniques and Creating Programs – Scratch

**Data Types, Operators, Variables, Inputs and Outputs, Sequence, Selection & Iteration**  
An introduction to computer programming with the software Scratch. This unit of work looks at key components of computer programming and using the software Scratch to demonstrate how programs are constructed.

### Assessment 2

How can 10 = 2?

### Data Representation

**Binary Numbers & Characters**  
A first introduction to binary and how binary is used within a computer system. The unit looks at how numbers and letters are converted and the different characters on display.

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### Introduction

KS3 requirements. Course calendar. Where to find resources. Folder Setup. Workbooks. Homework calendar. Student/Teacher expectations. What is a computer?

### Collecting and Presenting Data

**Spreadsheets**  
An introduction to Spreadsheets and the more detailed working elements of Microsoft Excel. Formulas, functions and graphs are introduced.

### Assessment 1

### Networks and the Internet

**eSafety, Social Media, Online Privacy & Laws**  
An introduction to what a network is and how computers link together to send information around a network. eSafety is covered alongside social media and how to use safely and securely.

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ABCDEFGHIJKLM  
NOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz

