

# BRIDGE CURRICULUM COMPUTING COMPUTER SCIENCE AND BUSINESS



# ST AUGUSTINES 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 Business including finance, marketing and business operations.

## 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.

## 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

**eSafety, Current Affairs**  
Exploring current affairs within Computing relating to eSafety

## BTEC Digital Information Technology Tech Award

A qualification with 3 components. 2 of these components are internally assessed units of work worth 60% with an externally assessed unit worth 40%.

## 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.

## 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.

## 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.

## 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.

## Business

**Finance & Marketing**  
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 is looked at.

## 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.

## Business

**Aims and Objectives & Branding and Logos**  
An introduction to the subject of business. This unit looks at the key business principles of aims and objectives and branding.

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Year 2

## Collecting and Presenting Data

**Planning a Project, Collecting Data, Analysing Data, Presenting Data & Web-Design Software**  
This unit looks at the important element within Computing of collecting data before analysing and presenting the data in a suitable format. Web design is looked at using the software Dreamweaver where a website will be designed and created.

## 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.

## Business

**Target Audience**  
Businesses rely on gaining data about their key customer groups and this unit looks at how businesses collect data and how it is used to focus on their key customers.

## Programming Techniques and Creating Programs – Kodu

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

## 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.

## Networks and the Internet

**eSafety, Current Affairs**  
Exploring current affairs within Computing relating to eSafety

Year 1

## Introduction

KS3 requirements. Course calendar. Where to find resources. Folder Setup. Workbooks. Homework calendar. Student/Teacher expectations. Understanding of flipped and unflipped learning. What is a computer?

## 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.

## Networks and the Internet

**Types of Networks, 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.

## Collecting and Presenting Data

**Word Processing and Desktop Publishing, Presentation Software & Spreadsheets**  
An introduction to the more detailed elements of the Microsoft Office suite of software. The software chosen are the main pieces of software that will be used in both Computing & in other subjects around school.

## 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.

## 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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