

Welcome to Year 8 Computing

Contacts:

We are the Enterprise Department: Mr Eyre, Mr Whitmarsh, Mrs Yeats, Mr Brown and Mr Gauvain.

We are based in the Enterprise Office (The portakabin in the quad, up the ramp, room 27) .

Any problems or questions - you can see any of us at any time (if we're available)...please do not hesitate.

Overview:

The Enterprise Department teach several subjects :

- *Computing & Computer Science*
- *ICT*
- *iMedia*
- *Business*
- *Economics*

All these subjects are available as GCSE options. Computer Science, ICT, Business and Economics continue at A level.

During key stage 3 (years 7,8 and 9), all students have a single (1 hour) Computing lesson every week in their tutor groups. You will study a range of Computing and ICT disciplines. You will also learn key skills needed to successfully access the schools systems and make use of computers in other subjects. We follow the KS3 National Curriculum in Computing as closely as possible, and we are always looking to try new and innovative ways of teaching Computing.

Lesson Plan for the year:

- June - July (half term 6) - BBC Basic
- September - October (half term 1) - Blockly
- November - December (half term 2) - Twine
- January - February (half term 3) - Python
- February - March (half term 4) - Processing (Java)
- April - May (half term 5) - Algorithms and Logic Gates

Homework Plan for the year:

Every half term you will use a computer and appropriate software to create a one page PDF file about a Computing pioneer. You will need to do your own research and use your skills to present the information in a way that is informative, interesting and eye catching.

The homework is not difficult: but...starting early enough, organising yourself, reading all the instructions carefully and acting on them is the key to success!

As a rough guide, around 2 hours per half term (start to finish including submission) should be required to achieve an e3 grade ("The expected level for a WBS student"). You will have several weeks to do this homework, so obviously you can spread that time out.

The homeworks are an individual task - do not share any ideas or any of your work with anyone else, it must be 100% your own.

This work must be created on a computer, **saved as a PDF file**, and submitted on Brightspace before the deadline date / time.

No paper (whatsoever) will be accepted, no emails, sharing files, sharing folders or any other submission method you can think of except UPLOAD YOUR PDF AT THE CORRECT UPLOAD POINT ON BRIGHTSPACE

The deadline date / time for homework will always be 4:00pm on the penultimate Friday of each individual half term. This is an automatic cut-off set in Brightspace. So, attempting to upload at any time after 3:59pm (on that penultimate Friday) will be automatically rejected and we will mark your homework as e1 "homework not completed".

Assessment (marking):

You will be assessed at the end of each half-term in 2 ways:

- 1). An end of 1/2 term test (last week of each 1/2 term): This will be marked using the standard WBS Reporting Grades e1 thru to e5 (attitude to learning)
- 2). Your homework: This will be marked using the standard WBS Reporting Grades e1 thru to e5 (independence)

KS3 National Curriculum in Computing:

Key stage 3

Pupils should be taught to:

- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
- understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem
- use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions
- understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]
- understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems
- understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits
- undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users
- create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
- understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns.