

# Welcome to Year 10 Computing

## Contacts

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Unofficial drop in sessions every Monday and Tuesday evening after school in CR3

The Enterprise Office is located in the quad (up the ramp) - Room 27

*Please note : All electronic resources for this course are on the Shared Areas*

## Overview

Normally, you will have 5 hour long lessons per fortnight (over your 2 week timetable). The course will be as practically based as possible, with a big emphasis on programming. We will be doing / creating as little paperwork as possible! All the evidence we need for assignments etc will be completed electronically and stored electronically. There will be theory involved for the examined element/s, but at first we will be concentrating on learning to code! The programming language we will be using is called Python. This is completely free and able to be downloaded for PC / Mac. There are many resources on the internet to help you learn this language, and most agree its one of the best languages for beginners. Also, its "current" and in use by NASA, Google, Nokia, Yahoo, Linux, IBM and many more big companies / organisations.

## Assessment

Content Overview	Assessment Overview	
<b>Computer systems</b> <ul style="list-style-type: none"><li>• Systems Architecture</li><li>• Memory</li><li>• Storage</li><li>• Wired and wireless networks</li><li>• Network topologies, protocols and layers</li><li>• System security</li><li>• System software</li><li>• Ethical, legal, cultural and environmental concerns</li></ul>	Computer systems (01) 80 marks 1 hour and 30 minutes Written paper (no calculators allowed)	50% of total GCSE
<b>Computational thinking, algorithms and programming</b> <ul style="list-style-type: none"><li>• Algorithms *</li><li>• Programming techniques</li><li>• Producing robust programs</li><li>• Computational logic</li><li>• Translators and facilities of languages</li><li>• Data representation</li></ul>	Computational thinking, algorithms and programming (02) 80 marks 1 hour and 30 minutes Written paper (no calculators allowed)	50% of total GCSE
<small>* Algorithm questions are not exclusive to Component 02 and can be assessed in either component.</small>		
<b>Programming Project</b> <ul style="list-style-type: none"><li>• Programming techniques</li><li>• Analysis</li><li>• Design</li><li>• Development</li><li>• Testing and evaluation and conclusions</li></ul>	20 timetabled hours	Formal requirement Consolidates the learning across the specification through practical activity.

## Specification

Link to OCR webpage: [GCSE Computer Science OCR Web Page](#)

Link to Computer Science Specification: [OCR GCSE Computer Science Specification](#)

## Computer Science GCSE Homework Policy



- 1). Homeworks are NOT Optional. A reasonable amount of time will be given (and some of that time will involve school days see point 5 below) and all homeworks will be explained carefully / shown to you here on Moodle before you get them.
- 2). All work should be 100% your own, unless instructed otherwise. Do not share your work with anyone else. However, there is nothing to stop you helping and advising, but do NOT let others copy.
- 3). You must READ all of the homework tasks very carefully and complete EVERYTHING exactly as asked. You should check your work really carefully before handing in to make sure you have done EVERYTHING. This is a common mistake.
- 4). Do not blame Hardware / Technical problems at home. It all boils down to bad planning and organisation on your part (see point 5 below).
- 5). You do not need any equipment at home. All homeworks can be done in CR2 after school on any day you choose. Just see any of the Enterprise staff or IT technicians, who will let you in if you ask politely and tell them you are doing Computing / Computer Science homework. However, this requires careful planning and organisation on your part to make sure you can meet the deadlines.
- 6). Failure to hand in the homework on time will result in a sanction - often a more difficult homework / call home for repeat offenders.
- 7). Failure to have a reasonable attempt at the homework or copying will have same result as point 6 above.
- 8). We will listen to valid excuses, but will be far more understanding if you us know about problems as soon as they occur. Telling us at the start of the lesson or when it's too late to do anything about it is simply not good enough.

## Setting

There will be 1 big project based homework per 1/2 term, which will draw together everything covered in each 6/7/8 week block. This will start to prepare you for the controlled assessment. The homework will be set the week before you break up, and will be due on your return.

Other smaller homeworks may be set on a ad-hoc basis, particularly finishing work / programs from class / revising for theory topic tests / mock exams / exam preparation etc.