

# Computer Science

OCR H446 A-level

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### What is computer science?

Computer Science is a discipline which requires thinking both in abstract and in concrete terms. On a higher level, computer science is concerned with:

- Problem solving
- Modelling and analysing problems
- Designing solutions
- Writing code to implement them

## Why study it?

Computer Science is becoming increasingly important in our everyday lives.

Many problems in the sciences, engineering, health care, business and other areas can be solved effectively with computers, but finding a solution requires both computer science expertise and knowledge of the particular application domain.

Computer scientists often become proficient in other subjects.

The learner will choose a computing problem to work through. They will analyse of the problem, design a solution, develop the solution in a suitable language and then evaluate the effectiveness.

Elements of computational thinking
Problem solving and programming
Algorithms to solve problems and standard algorithms

The characteristics of contemporary processors, input, output and storage devices
Software and software development
Exchanging data
Data types, data structures and algorithms
Legal, moral, cultural and ethical issues

COMP 3 20% Programming Project

COMP 2 40% Algorithms and Programming

COMP 1 40% Computer Systems

### **Questions and next steps**

#### **Questions**

- By email
- Call via school office
- Students at lunchtime our my office

#### **Next steps**

- Have a look at the topics
- Speak to year 12 and 13 who do the course
- Email –
   <u>ma.hamilton@roundwoodpark.co.uk</u> with
   any questions or
   m.desborough@roundwoodpark.co.uk