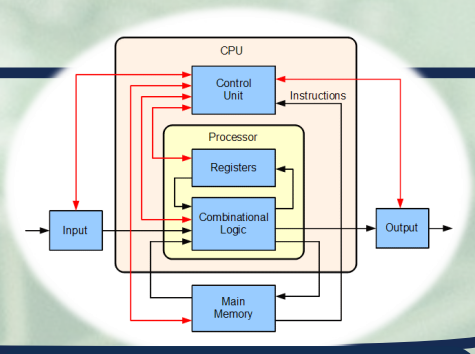
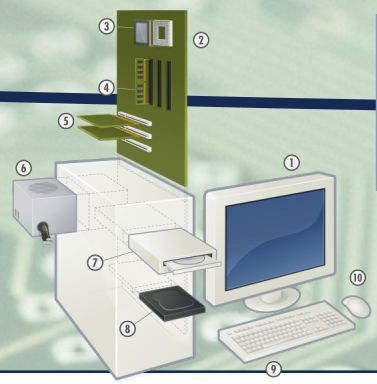
Year 10 Computer Science



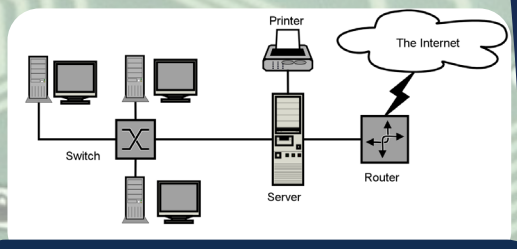
Systems Architecture

Automaticity
The ability to use some skills with such ease as they no longer require active thinking.

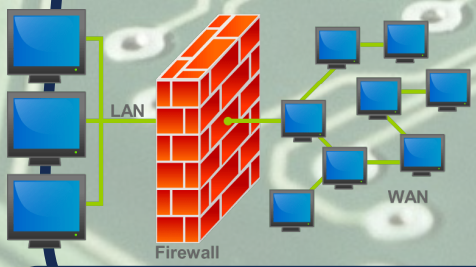


Memory and Storage

Connection finding
The ability to use connections from past experiences to seek possible generalisations.



Computer networks, connections and protocols



Network Security

Originality
The ability to conceive something entirely new

Systems software

Ethics, legal and cultural
The environmental impact of digital technology...

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Computer Science

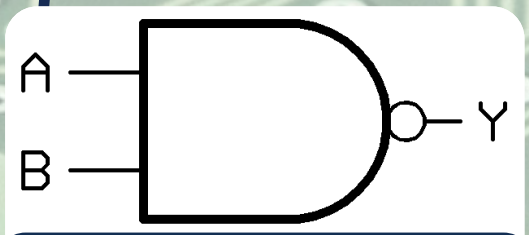
Year 11

Algorithms

Meta-cognition
The ability to knowingly use a wide range of thinking approaches and to transfer knowledge from one circumstance to another.

Programming fundamentals

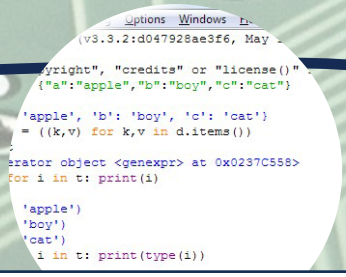
And producing robust programs...



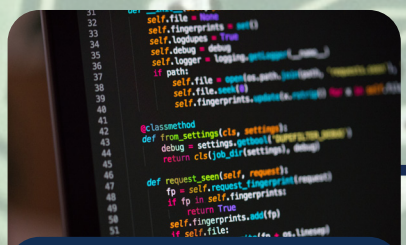
Boolean logic

ANALYSING

Precision
The ability to work effectively within the rules of a domain



Programming languages and integrated development environments



Practical programming tasks

HARD WORKING

Time to revise!

2 exams - 1h30m each - usually in May...

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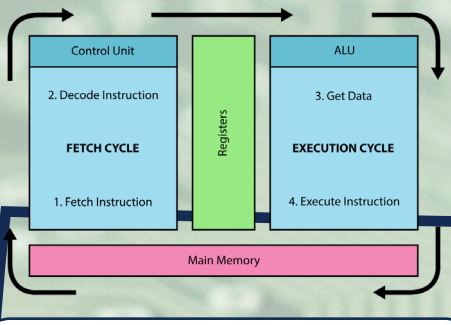
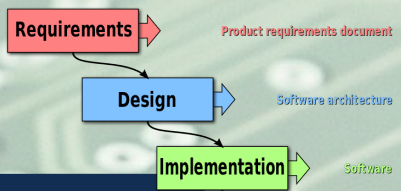
Computer Science · A Level

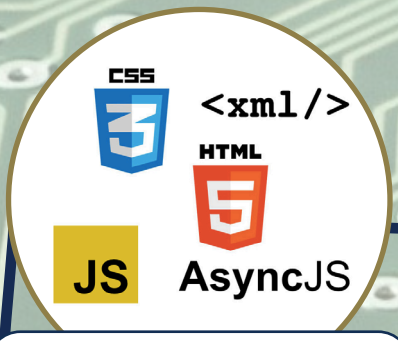
Year 12



Characteristics of processors
Input, output and storage devices...

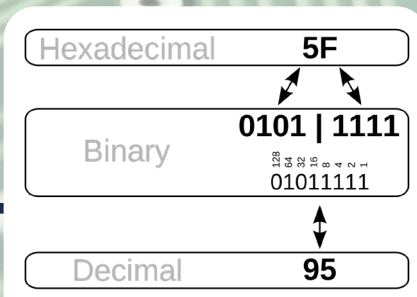


Software and software development



Exchanging data

Strategy planning
The ability to approach new learning experiences by actively attempting to connect it to existing knowledge or concepts and hence determine an appropriate way to think about the work



Data types, data structures and algorithms

Legal, moral, cultural and ethical issues.

ANALYSING

Critical or logical thinking
The ability to deduct, hypothesise, reason, seek supporting evidence

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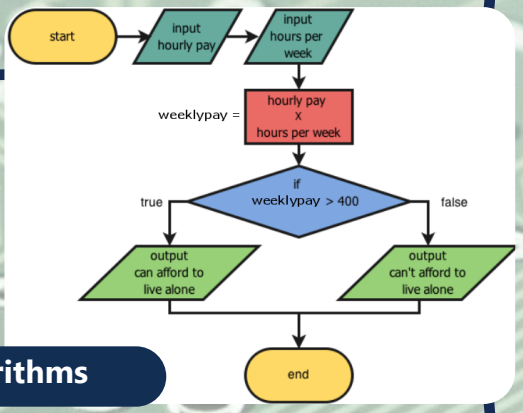
Year 13

Elements of computational thinking

Problem solving and programming



Algorithms

META-THINKING

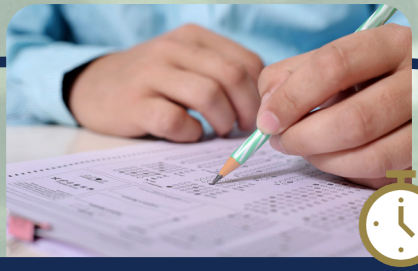
Programming project

Students will complete an independent programming project which they will complete over the course of a year worth 20% of their final grade.
Past projects have included: Robicts, games, AI and more!

REALISING

Speed and accuracy
The ability to work at speed and with accuracy

Revision time...



2h30m each

A Level exams

1. Computer systems
2. Algorithms and programming

Each exam is worth 140 marks and 40% of A Level grade.

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