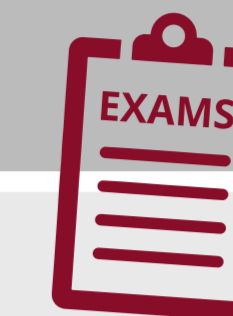




Computing Pros6



TRANSITION

ALGORITHMS

How do you use algorithms to describe and illustrate problems? How do you write standard algorithms?



NEA - PROJECT

Identifying and analysis of the problem. Design of the solution. Developing the solution. Evaluation.

REVISION AND COMMENCEMENT OF EXTERNAL EXAMS

Mastery in Year 13

- Understanding the main areas of computational thinking
- Can use programming techniques, can use algorithms to help illustrate a particular problem

Mastery in Year 12

- Able to understand the internal component of a computer- namely CPU in fine detail from types of processors to the input, output and storage model
- Can understand different systems software, methods of software development and programming languages
- Can understand and recognise different data structures
- Aware of all of the various impacts of computing on a moral, ethical, social and cultural point of view and the future implications of this



PROBLEM SOLVING AND PROGRAMMING

How can computers be used to solve problems? How can programs be written to solve them?

ELEMENTS OF COMPUTATIONAL THINKING

What is meant by computational thinking? What are the cornerstones of computational thinking?



LEGAL, MORAL, CULTURAL AND ETHICAL ISSUES

What are the individual moral, social, ethical and cultural opportunities and risks of digital technology? What legislation surrounding the use of computers and ethical issues that can or may in the future arise from the use of computers?



YEAR 13



DATA TYPES, DATA STRUCTURES AND ALGORITHMS

How data is represented and stored within different structures? What different algorithms that can be applied to these structures?



EXCHANGING DATA

How are data and information exchanged between different systems?

YEAR 12

THE CHARACTERISTIC OF CONTEMPORARY PROCESSORS

What do you understand about the internal workings of the Central Processing Unit (CPU) and the different types of processors?



SOFTWARE AND SOFTWARE DEVELOPMENT

What are the different types of software and the different methodologies used to develop software?