Method of assessment

Examination Board Edexcel

Assessment Paper 1 – Principles of Computer Science – Written

examination 50%

Paper 2 – Application of Computational Thinking –

Practical onscreen examination 50%

Why is it useful?

Computers are an undeniable part of our world now; it is unlikely that you won’t come across a

computer daily if not hourly. Smartphones, tablets and the internet have changed the way we

communicate, work, socialise and innovate. With this being the case it is more and more important

that you are prepared for this world by having an understanding how these devices have changed

our world and how you can utilise them and more importantly so that you can program them so

that you can access the emerging jobs that will appear over the next decade and beyond.

What does it involve?

Unit 1 covers five areas: Data (including binary and hexadecimal representation and mathematics)

Computational thinking (algorithms – following, constructing and amending. Truth tables)

Computers (hardware, components and software. Characteristics of programming languages)

Networks (Understanding networks and network security) Issues and impact (emerging trends in

computing. Ethical, legal issues). This paper consists of five compulsory questions, each one focused

on one of the topic areas. The questions consist of multiple-choice, short-, medium- and extendedopen-response, tabular and diagrammatic items.

What about coursework

Unit 2 is a practical assessment. This is done as a two-hour examination rather than a piece of

coursework. It covers how algorithms are used in relation to programs. Ability to read, write, refine

and evaluate programs written in python will be tested.

What skills and experience do I need?

In terms of experience – none. We will teach you all you need to be able to program (though

commitment outside lesson time to practice your skills will be needed if you want to do well). The

first skill you need is maths – not at a high level – but the first topic is binary – which is not difficult

really – but you need a bit of confidence in your maths so that you will be able to cope with it. The

second skill is logic and being able to take a problem and split it down into its component parts so

you have lots of little problems to solve!

Studying this subject could lead to…

• career opportunities in: Computer programming, Computer game development, Software

engineering, Cybersecurity, Website/app design/development

For further information contact Mr J. Rowlands