Exam board

OCR

Subject contact

Mr D Padgham –

Curriculum Leader

This subject has large theory

content and will appeal to

anyone who wants to develop

their understanding of what

goes on inside a computer,

how computers work and

practical programming skills.

Good maths and language

skills are essential. Grades

can be awarded from 9 – 1.

What will your child

learn on this course?

This course gives students a

real, in-depth understanding

of how computer technology

works. The course will

give them an insight into

what goes on ‘behind the

scenes’, including computer

programming, which many

students find absorbing.

Students will develop

critical thinking, analysis and

problem-solving skills, which

can be transferred to further

learning and everyday life.

Students who want to

go on to higher study and

employment in the field of

computer science will find

that this course provides a

superb stepping stone.

Paper 1 – Computer systems:

l Study how processors

work, investigate computer

memory and storage.

l Explore modern network

layouts and how they

function, build skills in

the ever important realm

of cyber security.

l Investigate how types of

software are used within

computer systems.

l How computers and

computing affect ethical,

legal, cultural and

environmental issues.

Paper 2 – Computational

thinking, algorithms

and programming:

l Study fundamental

algorithms in computer

science, build a

firm foundation in

programming techniques,

and produce programs

through diagrams.

l Thoroughly test

programs and make them

resistant to misuse.

l Explore Boolean algebra

(AND, OR, NOT).

l Understand how we store

data within computers

in binary form.

Programming projects

Students are given the

opportunity to undertake a

programming task(s) which

allows them to develop their

skills to design, write, test and

refine programs using a highlevel programming language.

The skills and knowledge

developed through doing this

will be assessed in paper 2.

Howwill they

be assessed?

l Paper 1 – Exam 1½

hours. Making up 50% of

the final GCSE grade.

l Paper 2 – Exam 1½

hours. Making up 50% of

the final GCSE grade.

What will your

child need to do to

make progress?

There will be a requirement

to commit to working in

supervised conditions

outside of normal lessons

to complete the coursework

elements of the course and

students will be expected

to work in an independent

manner on a range of tasks.

There will be a requirement

to develop a good

understanding of a range

of programming languages

and the school’s facilities

will be made available to

support this outside of

normal lesson times.

what could

happen next?

potentialpost-16 options/

Career pathways

This GCSE would be of

benefit to anyone considering

a career in computing or

programming of any kind. It

also provides a good basis

for the study of computer

science at higher levels.

Possible careers include:

software developer, games

designer, IT security,

network manager.