/Computing@Balcarras_

SUBJECT	YEAR	TERM
A-Level Computer Science (OCR)	**13**	**1/2**

UNIT

Programming Project

INTENT

PRIOR LEARNING (TOPIC) – Programming & Software Development Units

The programming project is a very exciting part of the course – it represents the first time many pupils will have developed a large-scale piece of software. What pupils create is largely down to them, so it is also an opportunity for pupils to explore areas of programming that really interest them. Pupils will not only produce the end solution to the problem they have identified, but also an extensive supporting document containing analysis, design, development and evaluation sections.

Specification Points:
This unit covers points 3.1 to 3.4

FUTURE LEARNING (TOPIC): Post-18 Computer Science courses

IMPLEMENTATION

Throughout the unit pupils will cover:

- Analysing a problem to identify requirements.
- Decomposing a problem and producing designs for each component part.
- Iteratively developing and testing a solution to the problem.
- Evaluating the overall success of the solution.

IMPACT

Assessment: The project accounts for 20% of the overall course.

Pupils will be given a mark out of 70 upon completion. They will also receive formative feedback at regular intervals throughout development.

HOW CAN PARENTS HELP AT HOME?

Support documents can be found on the A-Level Computer Science page of Firefly. This includes guidance on each major section and a wide range of exemplar work. Encouraging your child to use these is a good starting point. It can also be useful to discuss their project with them and to act as a proofreader upon completing major sections.

HELPFUL READING/FURTHER DISCUSSION

READING/EXTRA-LEARNING

There are an enormous number of online courses and tutorials to help pupils develop their computer science skills further.

Visit the Next Steps section of the Computing department's Firefly page for more details.

CAREERS

The skills / knowledge learnt in this unit lead perfectly into a wide range of careers including software development and project management.

WIDER SKILLS

Digital Literacy
Time Management
Problem Solving
Resilience

VOCABULARY

Stakeholders, Problem Recognition, Success Criteria, Decomposition, Testing Plan, Validation, Iterative Development, Agile, Maintainability.