

SUBJECT		YEAR	TERM
A-Level Computer Science (OCR)		12	1
UNIT			
Programming Fundamentals			
INTENT			
PRIOR LEARNING (TOPIC) – GCSE Programming Units			
Being a confident programmer is vital for success in computer science. As such, we start the year with a look at some of the fundamentals of programming. This briefly recaps some of the content learnt at GCSE, but quickly starts looking at more complex content, such as getting pupils more confident using a modular approach to their programming.			Specification Points: This unit covers point 1.2.1
FUTURE LEARNING (TOPIC): Programming Project			
IMPLEMENTATION		IMPACT	
Throughout the unit pupils will cover: - The core programming constructs: iteration, sequence and branching. - Modularity, including procedures, functions, global / local variables and passing parameters by value and reference. - The use of IDEs to develop and debug programs.		Assessment: Pupils will sit a 40 mark in-lesson assessment at the end of the unit, the score from which will be translated into an A* to E style grading. In addition to this, pupils will complete regular exam style questions both during lesson and as part of homework tasks.	
HOW CAN PARENTS HELP AT HOME?			
All course materials are available via Firefly. In the build-up to the assessment, parents can help by supporting their child’s revision. This can include testing them using flash cards or simply getting them to explain topics to you.			
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.		WIDER SKILLS Digital Literacy Problem Solving Resilience
VOCABULARY			
Sequence, Branching, IF-ELSE, Switch Case, Iteration, Count Control, Condition Control, Until, While, For, Function, Procedure, Return, Parameter, Reference, Value, Scope, Local, Global, IDE.			