

SUBJECT		YEAR	TERM
Computer Science		9	1
UNIT			
Next Steps into Programming			
INTENT			
PRIOR LEARNING (TOPIC) This unit follows on from the Programming Fundamentals unit done in Year 8.			
During year 8, pupils learned about the core fundamentals of programming, such as variables, selection and iteration. Each of these was taught in isolation though, with small projects being made to demonstrate individual skills. During Year 9 pupils will look at how all of these concepts can be brought together to create a more complex program. Specifically, pupils will make a simple version of Rock, Paper, Scissors, which can be played against a computer.			
FUTURE LEARNING (TOPIC): GCSE Computer Science			
IMPLEMENTATION		IMPACT	
Throughout the unit pupils will learn how to: <ul style="list-style-type: none">• Write simple instructions in Python.• Identify and solve syntax and logic errors.• Use and combine fundamental concepts and constructs.• Write comments in code to aid understanding.	Assessment: Pupils will submit the code they have created for their Rock, Paper, Scissors game and it will be given a 9-1 style grading. This grading will be based upon the following key areas: quality of code, independence, technical understanding.		
HOW CAN PARENTS HELP AT HOME?			
The development environment we use for programming (replit) is freely available via the World Wide Web. If pupils enjoy programming in lessons, they can easily learn more at home. Parents can support this by learning along with them or helping them find suitable next steps (see reading/extra-learning).			
HELPFUL READING/FURTHER DISCUSSION			
READING/EXTRA-LEARNING There are an enormous number of online courses and tutorials to help pupils develop their programming skills further. Visit the Next Steps section of the Computing department’s Firefly page for more details.	CAREERS Programming skills can lead into a wide array of careers, including software development, data science and game design.		WIDER SKILLS Digital Literacy Problem Solving Resilience
VOCABULARY			
Syntax, Instructions, Logic, Debugging, Sequence, Selection, IF ELSE, For, While, Condition, String, Integer, Real, Boolean, Casting, Input, Variable, Iteration, Random			