



SUBJECT	<b>Computer Science</b>		YEAR	<b>11</b>
<p><b>Why do we study Computing?</b>  <b>Students studying computer Science at Rushcliffe will develop the knowledge and skills to allow them to work and think like a computer scientist.</b></p>				
What you will learn this year	What you have learned before	Where you can read more		
Algorithms				
Application of the key terms of computational thinking Use of flowcharts, pseudo code and Python to solve problems Basic Searching and Sorting algorithms	Recall definitions of abstraction, pattern recognition, algorithm, and decomposition  Advanced knowledge of sequencing, selection and iteration to solve problems			
Programming Fundamentals				
Understanding and application of the use of 1D and 2D arrays Understanding and application of the use of files Knowledge of SQL and HTML	Advanced knowledge of sequencing, selection and iteration to solve problems Advanced knowledge of computational thinking Basic understanding of number operators Advanced HTML tags			
Producing robust programs				
How testing is used throughout programming The use of IDEs and why we use them	Advanced knowledge of sequencing, selection and iteration to solve problems Advanced knowledge of computational thinking Basic understanding of number operators Advanced HTML tags			
Boolean Logic				
Understanding of drawing a range of logic gates and logic diagrams Drawing of logic truth tables	Advanced understanding of basic binary Basic understanding of number and logical operators			
Revision of Year 10 Topics				
Consolidation and revision of the topics learned in Year 10	Consolidation and revision of the topics learned in Year 10			