

Computing - Year 7 Long Term Curriculum Map		
TERM 1	TERM 2	TERM 3
Pupils will be introduced to the “Theory of Computing”. During this term the pupils will be introduced to such topics as: • Computer Components • Internal and external memory • Fetch-Execute Cycle • Operating Systems • Binary and ASCII code	<u>Modelling a solution:</u> Pupils will become a ‘Top Spy’ During this unit, pupils will investigate the use of Spreadsheets and how solutions can be produced to solve a problem. Pupils will cover such elements as: • Formulas and Functions • Graphs • Conditional Formatting • Lookup and IF Functions • Relative and Absolute cell reference	<u>3D Printing:</u> During this unit the pupils will investigate shape and diameter to produce a 3D model that can be printed. To produce their model, pupils will use the site ‘Tinkercad’. Pupils will be taught basic decomposition skills to produce the perfect solution.
Computing - Year 8 Long Term Curriculum Map		
TERM 1	TERM 2	TERM 3
Pupils will be introduced to the “Theory of Computing”. During this term the pupils will be introduced to such topics as: • Computer Components • Internal and external memory • Fetch-Execute Cycle • Operating Systems Binary and ASCII code	<u>Adventure Game:</u> During this unit, pupils will investigate decomposition, algorithms and programming skills using either Python or Scratch. The pupils will produce a text based adventure game that will include user inputs and variables. To develop their game they will look at adding inbuilt functions such as “time”.	<u>Modelling a solution:</u> Pupils will become a ‘Top Spy’ During this unit, pupils will investigate the use of Spreadsheets and how solutions can be produced to solve a problem. Pupils will cover such elements as: • Formulas and Functions • Graphs • Conditional Formatting • Lookup and IF Functions • Relative and Absolute cell reference
Computing - Year 9 Long Term Curriculum Map		
TERM 1	TERM 2	TERM 3
Problem Solving: During this section of work, pupils will investigate: • Algorithms • Decomposition and Abstraction Throughout this unit of work, pupils will investigate, Flowcharts, Pseudo code, iteration and loops in order to solve a problem.	Programming During this unit of work pupils will investigate: • Developing Code • Code readability • Strings • Data Structures • Inputs/ Output	The Bigger Picture During this unit of work pupils will investigate: • Computing and the environment • Privacy • Data Inclusion • Professionalism • The Legal Impact

	• Subprograms Pupils will use all of these skills to solve a variety of problems such as “Driving Test and “The X Factor”	Throughout this unit of work pupils will investigate such things as Surveillance, Cyber-security, Digital inclusion, copyright and patents act and Licensing.
Computing - Year 10 Long Term Curriculum Map		
TERM 1	TERM 2	TERM 3
Data: During this section of work, pupils will investigate: • Binary • Data Representation • Data storage and compression • Encryption • Databases Throughout this unit pupils will investigate such things as converting denary to binary, binary and logic shifts, image and sound representation, data storage, asymmetric and symmetric encryption.	Computers: During this section of work, pupils will investigate: • Hardware • Logic • Software • Programming languages Throughout this unit, pupils will investigate such things as computational modelling, the von Neumann model, hardware components, The fetch-execute cycle, storage, truth tables, operating systems, utility software, high and low level languages.	Communication and the internet: During this unit of work the pupils will investigate: • Networks • Network security • The internet and the world wide web Throughout this unit, pupils will investigate such things as computer networks and their use, email and internet protocols, network security, cyber-attacks and how the WWW works.
Computing - Year 11 Long Term Curriculum Map		
TERM 1	TERM 2	TERM 3
Programming During this unit of work pupils will investigate: • Developing Code • Code readability • Strings • Data Structures • Inputs/ Output • Subprograms This is an opportunity for pupils to focus their programming skills in preparation for their controlled assessment.	Controlled Assessment: Pupils will complete their controlled assessment released by the exam board in (January) This is a timed programming assessment.	REVISION Pupils will work through past exam papers and theory notes in preparation for their final 2 exams.