Curriculum Content Map

Subject: Computer Science

Year group: Y10

	Term 1				Term 2			Term 3			
Month	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**
Virtue	**Friendliness & Civility**	**Justice & Truthfulness**	**Courage**	**Generosity**	**Gratitude**	**Good Speech**	**Good Temper & Humour**	**Self-Mastery**		**Compassion**	**Good Sense**
Skill	**Listening**	**Leadership**	**Problem-Solving**	**Creativity**	**Staying Positive**	**Speaking**	**Staying Positive**	**Aiming High**		**Speaking**	**Teamwork**
Curriculum Content	1.2B specification area – binary and denary conversions, sound, text, image data representation.	2.2A Programming fundamentals – sequencing, selection and iteration.	1.1 Hardware Memory Storage CPU	2.4 Logic gates and low level languages.	2.2B string manipulation ,file handling procedures, functions, random numbers,	2.2B mini project 1.3 wired networks	1.3 wireless networks and internet 1.4 security threats	1.4 social engineering	Programming project	1.5 software	1.6 laws and ethics of computing
National Curriculum area	Ks4.1 – computer science knowledge	Ks4.2 – computational thinking skills.	Ks4.1 computer science knowledge	Ks4.2 problem solving skills	Ks4.2 computational thinking skills.	Ks4.2 Computational thinking skills. Ks4.1 computer science knowledge	4.3 safe use of the internet.	4.3 safe use of the internet.	Ks4.2 analytic, design and computational thinking skills.	Ks4.1 computer science knowledge	4.3 safe use of the internet.
Link to Virtue	Students will be demonstrating friendliness and civility by supporting one another with a difficult new skill.	Students will be using algorithms to reach the truth (the correct output).	Students will demonstrate courage in designing computer systems.	Students will explore generosity through the difference between the word OR in general language and the more generous OR gate.	Students will develop gratitude for apps by understanding how they are made.	Students will demonstrate good speech as they provide peer feedback on a project.	Students will demonstrate good temper as they explore how to avoid cyber threats.	Students will demonstrate self-mastery as they explore how to prevent online attack.	Students will demonstrate self-mastery by completing a programming project.	Students will demonstrate compassion as differences between free and paid for software are explored.	Students will demonstrate good sense by understanding and following the laws of computing.
Link to Skill	Students will be exploring communication by computers.	Students will be demonstrating leadership by decomposing a problem and prioritising time to reach a solution.	Students will demonstrate problem solving by designing systems to meet needs.	Students will demonstrate creativity in designing algorithms using low level languages.	Students will stay positive while developing complex programs.	Students will provide peer feedback on a project.	Students will explore remaining positive after a cyber attack.	Students will aim high by seeking to avoid cyber attack.	Students will aim high by aiming to fully resolve the set problem.	Students will be able to share with others the decisions they make.	Students will work as part of a team in a big debate about the ethics of driverless cars.
Sequencing											
Retrieval											
New Learning											
Independent Practice											
Misconceptions											

Vocabulary and Comprehension											
Literacy											
Numeracy											
Oracy											
Careers											
Super Curricular Links											
British values and SMSC											
Summative assessment											
Scaffolding for LA											
Challenge for HA ☆											