Year 8 Computing					
Curriculum intent	We believe that students deserve a Computing and ICT curriculum which prepares them for the digital and fast paced world they live in. Covering the three strands of the computing national curriculum, Computer Science, ICT and Digital Literacy, our aim is to give our students the skills and abilities to engage positively with the digital world and take advantage of all the opportunities that come their way both in the UK and in the wider world. Our computing key stage 3 curriculum enables students to use computational thinking and creativity to solve real world problems by developing a wide range of skills in both programming and ICT, using multiple packages selected to spark and foster interest and creativity. Students will learn resilience and that making mistakes is part of learning, giving them the confidence to tackle a variety of independent learning activities. Students will be taught to navigate this new digital world safely and be aware of the dangers that they now face. Students will also begin studying for their IDEA Programme Bronze badge which will help develop their digital, employability and entrepreneurial skills.				
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge	**E- Safety** What are the dangers of the internet to teenagers Why is it important to keep your account settings private? Dangers of online gaming **Advanced Binary:** Recap of converting binary What is a hexadecimal number? How do computers use Boolean Logic? **Manipulation of digital artefacts** Develop a knowledge of images using a 1bit image representation Use photoshop to create a logo for a music festival		**The Internet and HTML** How the internet works Why is reliability of websites important and how to tell if a website is reliable HTML and CSS: What tags are used to create a professional Website What is a computer network and protocols? What are the key hardware components found in a network	**Advance Spreadsheets: Music Festival** What are advanced functions such as count if? What are If statements What are look up tables What is spreadsheet modelling		**Introduction to Python** What is a variable and how is it used in programming? What is selection and how is it used in programming? What are lists and conditional loops and how are they used in computer programming What are inputs and outputs. **Computing Theory** Input, Output and Storage Devices Hardware and Software
Skills	Microsoft Word Cover binary numbers to hexadecimal and vice versa		Recall of information PowerPoint	Solving real world problems using advanced spreadsheets skills such as:		Writing code to solve problems using: Variables Selection

	Solving AND,OR,NOT gates Using a variety of tools in photoshop to create a logo	Searching the Web effectively using advanced searching techniques. Use of HTML and CSS to create a website	Count If If Statements Look up tables Spreadsheet modelling	Lists Conditional loops Inputs and Outputs
Assessments	Binary Assessment Completed logo	Written Assessment. Staying Safe online Website created in HTML	Music Festival Spreadsheet	Python Assessment: Writing code to solve real life problems
Curiosity	https://kidshelpline.com.au/teens/issues/staying-safe-online - Kids Helpline website for tips and advice - Anytime any reason	https://alejandrorioja.com/how-does-google-make-money/ - How google makes their money https://www.youtube.com/watch?v=XYTwYmOjqQs Evolution of web design The Social Network – Netflix or Amazon Prime https://www.youtube.com/watch?v=hGXZjIDSXyg – The History of computing	https://www.youtube.com/watch?v=wDMo4cFxWq0 - Microsoft video showing best practice for advance modelling spreadsheet	https://www.python.org/about/gettingstarted/ - Python for beginners website https://www.youtube.com/watch?v=rfscVS0vtbw – Python tutorials for beginners

Extra Curricular:

- Coding Club
- Digital Leaders
- Internet Safety Day Logo Competition
- Ideas Programme
- Completion of ideas programme silver badge
- Trip to encourage larger intake for CS – TBC
- Enterprise Challenge Day
- Cadburys world Trip - TBC