



Computing and ICT						
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Introduction to E-Safety	Introduction to Spreadsheet Modelling	Word Processing	Scratch Programming	Digital Graphics	Project
Year 8	Social Media and Cyberbullying	Computer Systems	Web Design & HTML	Databases	2D Animation	Python Basics
Year 9 Computer Science	System architecture	Software	Data representation	Sound images	Logic	Algorithms
Year 10 Computer Science	Networks	Protocols	Operating systems and software	System security	Ethics and law	Programming
Year 11 Computer Science	Programming	NEA	NEA	Hardware Software Legal	Data Logic	Constructs Algorithms



Computing and ICT – Year 8

Knowledge and Skills Students will be taught to....	Reading, Oracy, Literacy and Numeracy	Formative Assessment	Summative Assessment	Link to reformed GCSE Content
<p>What cyberbullying is and the different dangers of social networks. Students need to be made aware of what grooming is and how to report signs of grooming in and out of school.</p> <p>Students will explain what the different components of a computer are, linking in advantages and disadvantages of each.</p> <p>Evaluation of features used with two different websites. Students will learn HTML and use their knowledge of this to create their own website.</p> <p>What is a database and the key features included within a database? Students will create their own database incorporating the key features such as queries, reports and forms.</p> <p>What are the different types of animations and how useful are each of these? Key skills and effects which are incorporated into animation clips. Students will create their own Lego animation in groups building on their knowledge from previous lessons.</p> <p>What is Python programming. Key skills will be covered to create a program including: variables, sequence and selection.</p>	<p>Reading</p> <ul style="list-style-type: none"> Information from the internet and summarise into own words <p>Numeracy</p> <ul style="list-style-type: none"> Databases and Programming constructs in Python link back to numeracy <p>Oracy and Literacy (including key words for practical subjects)</p> <ul style="list-style-type: none"> Key words Student discussion 	<p>Questioning in lessons</p> <p>Whole class feedback during lessons</p> <p>Low stakes quizzing</p> <p>Exit Strategies</p>	<p>2 assessments throughout the academic year</p> <p>Topic tests for each completed unit.</p>	<p>Legislation</p> <p>Programming Constructs</p> <p>HTML and Web Sites</p> <p>Computer systems and hardware devices.</p> <p>NEA Coursework- Python Program</p>



Assessment Skills, Knowledge and Concepts Map (These need to be mapped backwards from GCSE and ensure that all students can access their target percentage) – what do all students need to achieve in year 8 to be able access their target grade and be on track for their year 11 target grade?

Computing and ICT – Year 8		
Key Learning Questions	E-Safety: Social Media and Cyberbullying	Reading and Oracy
<ul style="list-style-type: none"> What is cyberbullying and what are the different forms which take place? What is a digital footprint and how does it affect everyone using social media? How can you identify that someone is being groomed? 	<ul style="list-style-type: none"> Define what cyberbullying is and the different types Describe various types of social networks explaining the dangers of each. Explain what grooming is and how it can occur. Be able to identify behaviours expressed by someone who may be being groomed. 	<ul style="list-style-type: none"> Reading facts and definitions. Video clips relating to different scenarios Student discussion and responses to questions.
Key Learning Questions	Computer Systems	Reading and Oracy
<ul style="list-style-type: none"> What are the advantages and disadvantages of input and output devices? Which storage device would be best fit for purpose? How do different components of a computer system improve the performance of the overall computer? 	<ul style="list-style-type: none"> Explaining what the different input and output devices are and their uses. Discuss various storage devices and their suitability based on various scenarios. Label the inside of a computer. Describe the different types of components and their uses. 	<ul style="list-style-type: none"> Reading facts and definitions. Animation clips related to topics. Student discussion and responses to questions.
Key Learning Questions	Web Design and HTML	Reading and Oracy
<ul style="list-style-type: none"> What are the key features of a website? What should be included in a website to make it for purpose? What is HTML? What are the key HTML tags needed to make a basic web page? 	<ul style="list-style-type: none"> Describe the different features of websites and whether these are suitable for audience and purpose. Describe overall the strengths and weaknesses of the websites. Learn the basic constructs of a HTML web page. 	<ul style="list-style-type: none"> Reading facts and definitions. Reading Example work- Give guidance Student discussion and responses to questions.
Key Learning Questions	Databases	Literacy and Numeracy
<ul style="list-style-type: none"> What is a database? Explain the differences between a paper based database and an electronic database? What are the different data types that are included in database and why would they be useful? Explain why it is important to keep a database up to date? 	<ul style="list-style-type: none"> Describe different features of a database. Describe the different uses of a database. Creating a database and import data into the database. Creating queries based on a set scenario Creating a data input form to successfully add data to a table within a database. 	<ul style="list-style-type: none"> Reading facts and definitions. Visual aids and skills guides. Student discussion and responses to questions. Operators



Key Learning Questions	2D Animation	Reading and Oracy
<ul style="list-style-type: none">• What is animation?• What are the advantages and disadvantages of the different types of animation?• What features can be included to produce a smooth and professional animation?	<ul style="list-style-type: none">• Describe the different types of animation techniques.• Discuss the advantages and disadvantages of each of the animation techniques.• Create an animation using Lego and props to aid your performance.	<ul style="list-style-type: none">• Reading facts and definitions.• Reading Example work- Give guidance• Student discussion and responses to questions.• Student discussion within groups and responding to feedback.
Key Learning Questions	Python Basics	Literacy and Numeracy
<ul style="list-style-type: none">• What is python programming?• Why are variables important to include in your program?• What is the difference between sequence and selection?	<ul style="list-style-type: none">• Explain what python programming is.• Create a basic program which will display a message to a user.• Create a program which stores information using variables.• Create a program which uses both sequence and selection.	<ul style="list-style-type: none">• Operators• Reading through code• Correcting spelling and programming mistakes.• Programming constructs.