

Year 8 Computer Science Curriculum Summary

Term	Unit	Threshold concepts/Core knowledge	Formative (interim) assessment & Homework	Formal assessment
1	Unit 1: Algorithms & Computer Networks	<p>Imagine a world without computer networks, and how different your life would be. There would be no more YouTube, Google, instant messaging, online video gaming, Netflix, and iTunes. There would be no online shopping, or quickly looking up directions to a location at the click of a button. As networks have evolved, society has become increasingly reliant on the services that they provide. They have changed the way we learn, work, play, and communicate.</p> <p>This unit begins by defining a network and addressing the benefits of networking, before covering how data is transmitted across networks using protocols. Students will develop an understanding of the terms 'internet' and 'World Wide Web', and of the key services and protocols used.</p>	<p><u>Literacy Homework</u> Key word spelling test revision issued every 5 weeks</p> <p><u>Interim</u> Key word spelling test and extended writing task every 6 weeks.</p> <p>Do Now, Key Vocabulary and extended writing booklet</p>	
2	Unit 2: HTML & CSS	<p>In this unit, students will explore the technologies that make up the internet and World Wide Web. Starting with an exploration of the building blocks of the World Wide Web, HTML, and CSS, students will investigate how websites are catalogued and organised for effective retrieval using search engines.</p> <p>By the end of the unit, students will have created a functioning website.</p>	<p><u>Literacy Homework</u> Key word spelling test revision issued every 5 weeks.</p> <p>Home Learning project 1</p> <p><u>Interim</u> Key word spelling test and extended writing task every 6 weeks.</p> <p>Do Now, Key Vocabulary and extended writing booklet</p> <p>End of unit 2 interim assessment</p>	<p>Assessment 1: <i>Algorithms & Computer Networks end of unit assessment</i></p>

3	Unit 3: Python programming	<p>This unit introduces students to text-based programming with Python. Students will start with simple programs involving input and output, and gradually move on through arithmetic operations, randomness, selection, and iteration.</p> <p>Emphasis is placed on tackling common misconceptions and elucidating the mechanics of program execution.</p>	<p><u>Literacy Homework</u> Key word spelling test revision issued every 5 weeks</p> <p><u>Interim</u> Key word spelling test and extended writing task every 6 weeks.</p> <p>Do Now, Key Vocabulary and extended writing booklet</p>	
4 & 5	Unit 4: My Digital World	<p>There are billions of webpages on the world wide web giving us a wealth of information! But the fact is, anyone can write and publish a website. This unit is a continuation from the previous year 7 unit “What’s IT all about?” where students take those digital literacy and e-safety skills further and look at the range of threats associated with the use of technology, and the ways in which to prevent them.</p> <p>Students will look at the effect of different technologies on society and their advantages and disadvantages in the context of societal challenges.</p>	<p><u>Literacy Homework</u> Key word spelling test revision issued every 5 weeks</p> <p>Home Learning project 2</p> <p><u>Interim</u> Key word spelling test and extended writing task every 6 weeks.</p> <p>Do Now, Key Vocabulary and extended writing booklet</p> <p>End of unit 4 interim assessment</p>	<p>Assessment 2: <i>Python and Digital Literacy end of unit assessment</i></p>
6	Unit 5: Creating an Interactive Product-Quiz	<p>Students will end the year off looking at a variety of digital graphic software packages in order to create a digital product like a real-life digital artist would in industry.</p> <p>Students will demonstrate skills relating to the creation of digital media such as searching, combining, editing, saving and presenting.</p>	<p><u>Literacy Homework</u> Key word spelling test revision issued every 5 weeks</p> <p><u>Interim</u> Key word spelling test and extended writing task every 6 weeks.</p> <p>Do Now, Key Vocabulary and extended writing booklet</p> <p>End of unit 5 interim assessment</p>	