

OVERVIEW	<p>In Year 8 students will learn build on the HTML coding they learned in Year 7 by programming in JavaScript. They learn how data is constructed and manipulated from 1s and 0s which is vital to understanding the how nodes on a network communicate in Year 9. They learn the historical significance and contribution of key personalities in recent Western thought pertaining to Computer Science, although they will also learn about significant contributions from older, longer established Eastern civilisations as well. They conclude the year building on their knowledge and practical application of Cybersecurity and develop their oracy and reasoning skills when studying social media.</p>		
AUTUMN	<p>8.1 JavaScript 8.2 JavaScript</p> <p>Students start by recapping HTML and CSS. JavaScript gives students more scope for front end scripting and can be used server side (back end) to increase the scope of projects they can build. This web-orientated language is the first programming language students learn which builds directly on the HTML coding done at the end of Year 7.</p>	<p>Assessment</p> <p>Students will be assessed in January and June using Socrative. This platform will assess their cumulative learning to date.</p>	<p>Personal Development</p> <p>Students are taught not to be just passive consumers of an opaque and mysterious technology. They are supported in using knowledge to solve problems when things go wrong and to form their views on solutions.</p>
SPRING	<p>8.3 Data: Binary</p> <p>Students learn how numbers can be represented, learn to carry out simple operations on binary numbers, for example, binary additions and conversion between binary, hexadecimal and denary.</p> <p>8.4 Data Representation</p> <p>Students learn how binary numbers represent different types of data such as images and sound. Students also learn about data compression techniques and encryption</p>	<p>Assessment</p> <p>Students will be assessed in January and June using Socrative. This platform will assess their cumulative learning to date.</p>	<p>Personal Development</p> <p>We promote mutual respect and tolerance, for example, considering how our behaviour is applicable to the online world as well as in society. Computer Science shares attributes with engineering, mathematics, science, and technology, this area involves the application of logic and reasoning as well as scientific approaches to measurement and experiment. It requires understanding, appreciation, and application of a wide range of technologies.</p>
SUMMER	<p>8.5 Back to the Future</p> <p>Students learn about the key personalities who played a key role in computing developments.</p> <p>8.6 Social Media</p> <p>Students learn about the individual and societal impacts of social media. This takes the form of guided research to produce an essay entitled "Should Social Media be banned for teenagers?"</p>	<p>Assessment</p> <p>Students will be assessed in January and June using Socrative. This platform will assess their cumulative learning to date.</p>	<p>Personal Development</p> <p>Whilst studying various aspects of computing students are asked to reflect on how different cultures are portrayed on the internet and why or who is portraying them in this way. Students are also challenged to think about how differing cultures access and use the internet and what implications this has on the individual and the culture.</p>

Useful links

<https://www.w3schools.com/js/default.asp>
<https://www.youtube.com/watch?v=W6NZfCO5SIk>
<https://trinket.io/>

<https://www.youtube.com/watch?v=ku4KOFQ-bB4&list=PLS---sZ5WJJvsjaAQZKwTwxl910xUdO98>