

Computing – Year 8

Half term 1	<p>Binary</p> <p>This unit follows on from the Year 7 unit and looks at further developing student skills in binary conversion. They look at converting larger numbers into decimal and different methods are introduced for conversions. This topic is heavily dependent on maths skills and number systems.</p>
Half term 2	<p>Binary (continued)</p> <p>Students manipulate 8-bit strings and learn how to add two 8-bit strings. They calculate overflows and create a video on the work they have produced</p>
Half term 3	<p>Programming</p> <p>This unit develops on the skills from Year 7 where students were introduced to programming using animations. Students use Scratch to create programs (algorithms) that help to solve problems, e.g. moving a character around a maze.</p>
Half term 4	<p>Programming (continued)</p> <p>Students develop their skills in programming and look in more details at using nested IF statements, are introduced to Boolean operators and then combine these to produce realistic algorithms to solve problems.</p>
Half term 5	<p>Websites</p> <p>Introduction to HTML and how this is the language of the web. Students create their own web page using HTML and then using a web page editor. Images and text are added to make the page look professional and links to other websites and pages.</p>
Half term 6	<p>Websites (continued)</p> <p>Students develop their skills by assessing how well they have met the criteria for the web page and how it can be improved.</p>
Homework expectations	<p>Students will look at completing binary conversions at home and will design their programs ready for them to be used in lessons. Web pages will also be designed and look professional, ready to be created in lessons.</p>
By the time you finish key stage 3 you'll be...	<p>Able to explain the basic programming constructs. Students will know the structure of programs and use these to create algorithms to solve problems.</p>