

# CURRICULUM MAP: Foundation yr7



Term Autumn 14 weeks	Foundation Year 7	Term Spring 10 weeks	Foundation Year 7	Term Summer 14 weeks	Foundation Year 7
<p>Literacy foci Reading skills Subject terminology and vocabulary Spelling tests</p> <p>Homework Yacapaca , Quizizz.com &amp; spelling on SMHW</p> <p>Revisiting, revising, remembering opportunities Starter activities Quizizz.com Yacapaca</p> <p>SIMS Data drop</p>	<p><b>Units:</b></p> <p><b>7.1 Digital Citizens</b></p> <p><b>NC Content:</b></p> <p>Students will undertake creative projects that involve selecting, using, and combining multiple applications.</p> <p>Students will explore a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; they will be able to recognise inappropriate content, contact and conduct and know how to report concerns.</p> <p><b>7.2 Game on (Scratch)</b></p> <p><b>NC Content:</b></p> <p>Students will use block based programming to solve a variety of computational problems; they will have to make appropriate use of data structures [for example, lists, tables or arrays].</p> <p>Students will create, re-use, revise and re-purpose digital artefacts for a given audience and purpose, with attention to design and usability.</p> <p><b>Enrichment/life and work skills:</b> Computer Science Club/ coding club Competitions</p> <p><b>Assessments:</b> Quizizz.com</p> <p><b>Endpoint:</b></p> <p>Students will understand how to keep safe online in a variety of scenarios, they will learn how to create a game using block programming.</p>	<p>Literacy foci Reading skills Subject terminology and vocabulary Spelling tests</p> <p>Homework Yacapaca , Quizizz.com &amp; spelling on SMHW</p> <p>Revisiting, revising, remembering opportunities Starter activities Quizizz.com Yacapaca</p> <p>SIMS Data drop</p>	<p><b>Units:</b></p> <p><b>7.3 What are Computers</b></p> <p><b>NC Content:</b></p> <p>Students must understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems.</p> <p>Students will learn how instructions are stored and executed within a computer system.</p> <p>Students will understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits .</p> <p><b>7.4 Web Awareness</b></p> <p><b>NC Content:</b></p> <p>Students will complete creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, meeting the needs of known users . They will understand what HTML is and how websites are coded, they will develop their own site.</p> <p><b>Enrichment/life and work skills:</b> Computer Science Club/ coding club Competitions</p> <p><b>Assessments:</b> Quizizz.com</p> <p><b>Endpoint:</b></p> <p>Students will understand how Computers work and how websites are created.</p>	<p>Literacy foci Reading skills Subject terminology and vocabulary Spelling tests</p> <p>Homework Yacapaca , Quizizz.com &amp; spelling on SMHW</p> <p>Revisiting, revising, remembering opportunities Starter activities Quizizz.com Yacapaca Revision for Summer exam</p> <p>SIMS Data drop</p>	<p><b>Units:</b></p> <p><b>7.5 Control</b></p> <p><b>NC Content:</b></p> <p>Using control software students will design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems.</p> <p>Understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming.</p> <p><b>7.6 Game Development</b></p> <p><b>NC Content:</b></p> <p>Students will complete a creative project that will involve selecting, using, and combining multiple applications and artifacts / assets, meeting the needs of known users. They will create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability</p> <p>They will use a block based programming language to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]. Students will also be introduced to a text based programming Language, (Python).</p> <p><b>Enrichment/life and work skills:</b> Computer Science Club/ coding club Competitions</p> <p><b>Assessments:</b> End of Year Assessments.</p> <p><b>Endpoint:</b></p> <p>Students will understand how computers are used to make decisions, students will understand how to design and create games.</p>

# CURRICULUM MAP: Foundation yr8



Term Autumn 12 weeks	Foundation Year 8	Term Spring 10 weeks	Foundation Year 8	Term Summer 14 weeks	Foundation Year 8
<p>Literacy foci Reading skills Subject terminology and vocabulary Spelling tests</p> <p>Homework Yacapaca , Quizizz.com &amp; spelling on SMHW</p> <p>Revisiting, revising, remembering opportunities Starter activities Quizizz.com Yacapaca</p> <p>SIMS Data drop</p>	<p><b>Units:</b> <b>8.1 Cryptography</b> <b>NC Content:</b></p> <p>Students will understand two or more programming languages, at least one of which is textual, (Python), and will have solved a variety of computational problems..</p> <p>Students will understand how data of various types can be represented and manipulated digitally, in the form of binary digits.</p> <p>Students will relate this to the concept of encryption, making links to units from year 7 to recognise the importance of keeping Data safe. Students will learn about The Enigma Machine, Alan Turing and the work done at Bletchley Park.</p> <p><b>8.2 Data</b> <b>NC Content:</b></p> <p>Students will learn how numerical data can be manipulated by computers using software and its relevance to the modern world. Links will be made to the importance of data in society.</p> <p><b>Enrichment/life and work skills:</b> <b>Computer Science Club</b></p> <p><b>Assessments:</b> <b>Quizizz.com</b> <b>Endpoint:</b> Students will have a knowledge of Cryptography and how encryption works, they will also understand the how data is manipulated and its relevance to everyday life.</p>	<p>Literacy foci Reading skills Subject terminology and vocabulary Spelling tests</p> <p>Homework Yacapaca , Quizizz.com &amp; spelling on SMHW</p> <p>Revisiting, revising, remembering opportunities Starter activities Quizizz.com Yacapaca</p> <p>SIMS Data drop</p>	<p><b>Units:</b> <b>8.3 Python Magic</b> <b>NC Content:</b></p> <p>Students will understand how algorithms reflect computational thinking and they will use logical reasoning to compare the suitability of alternative algorithms for the same problem.</p> <p>Students will use a textual programming language, (Python), to solve a variety of computational problems; they will make use of relevant data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions.</p> <p><b>8.4 Logic</b> <b>NC Content:</b></p> <p>Students will learn about simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]</p> <p><b>Enrichment/life and work skills:</b> <b>Computer Science Club</b> <b>Assessments:</b> <b>Quizizz.com</b> <b>Endpoint:</b> Students will develop a range of coding skills and understand constructs, they will understand the importance of logic in Computing and its relationship to hardware.</p>	<p>Literacy foci Reading skills Subject terminology and vocabulary Spelling tests</p> <p>Homework Yacapaca , Quizizz.com &amp; spelling on SMHW</p> <p>Revisiting, revising, remembering opportunities Starter activities Quizizz.com Yacapaca Revision for Summer exam</p> <p>SIMS Data drop</p>	<p><b>Units:</b> <b>8.5 Cyber Crime and Security</b> <b>NC Content:</b></p> <p>Students will explore a range of ways that society uses technology safely, respectfully, responsibly and securely, including the protecting of ones online identity and privacy.</p> <p>They will be taught about a range of security concerns and how they may impact an individual and an institution.</p> <p><b>8.6 Data Representation</b> <b>NC Content:</b></p> <p>Students will understand what the hardware and software components are that make up computer systems, and how they communicate with one another and with other systems.</p> <p>They will understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits.</p> <p><b>Enrichment/life and work skills:</b> <b>Computer Science Club</b> <b>Assessments:</b> <b>End of Year Assessment.</b> <b>Endpoint:</b> Students will understand the importance of Cyber security in todays society, they will also understand how computers represent different types of data, linking to a previous unit.</p>