

# COMPUTING Subject Overview

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Year 6	<b>Managing online information (6)</b>	<b>Managing online information (5)</b> <b>Online reputation (2)</b> <b>Online bullying (2)</b>	<b>Privacy (6)</b>	<b>Health and Wellbeing (4)</b>	<b>Self-image and identity (3)</b> <b>Online relationships (4)</b>	<b>Copyright (2)</b>
	<b>Internet Communication</b> - Networks -Effective use of tools  <i>Exploring how data is transferred by working collaboratively online.</i>	<b>Webpage creation</b> -Creating Media -Data and Design  <i>Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.</i>	<b>Variables in Games</b> -Programming -Data and Design  <i>Exploring variables when designing and coding a game.</i>	<b>Introduction to Spreadsheets</b> -Effective use of tools -Data and Information  <i>Answering questions by using spreadsheets to organise and calculate data.</i>	<b>3D modelling</b> - Effective use of tools -Creating Media  <i>Planning, developing, and evaluating 3D computer models of physical objects.</i>	<b>Sensing</b> - Programming - Computing Systems  <i>Designing and coding a project that captures inputs from a physical device.</i>
Year 5	<b>Online relationships (5)</b> <b>Online reputation (2)</b>	<b>Managing online information (9)</b>	<b>Online bullying (6)</b>	<b>Health, wellbeing and lifestyle (4)</b>	<b>Copyright and ownership (2)</b> <b>Self-Image and identity (2)</b>	<b>Privacy and security (3)</b> <b>Knowledge map</b>
	<b>Sharing information</b> - Networks -Effective use of tools  <i>Recognising IT systems in the world and how some can enable searching on the internet.</i>	<b>Video Production</b> - Creating Media - Data and Design  <i>Planning, capturing, and editing video to produce a short film.</i>	<b>Selection in physical computing</b> - Programming - Creating Media  <i>Exploring conditions and selection using a programmable microcontroller.</i>	<b>Flat-File Database</b> - Data and Information - Effective use of tools  <i>Using a database to order data and create charts to answer questions.</i>	<b>Vector Drawing</b> - Effective use of tools - Creating Media  <i>Creating images in a drawing program by using layers and groups of objects.</i>	<b>Selection in Quizzes</b> - Algorithms - Programming  <i>Exploring selection in programming to design and code an interactive quiz.</i>
Year 4	<b>Online relationships (3)</b>	<b>Managing online information (6)</b>	<b>Online reputation (2)</b> <b>Copyright ownership (2)</b>	<b>Health wellbeing and lifestyle (2)</b>	<b>Online bullying (3)</b> <b>Privacy and security (4)</b>	<b>Self image and identity (3)</b>

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	<p><b>The Internet</b> -Networks -Safety and security</p> <p><i>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</i></p>	<p><b>Audio Production</b> -Effective use of tools -Creating media</p> <p><i>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</i></p>	<p><b>Repetition in shapes</b> -Algorithms -Programming</p> <p><i>Using a text-based programming language to explore count-controlled loops when drawing shapes.</i></p>	<p><b>Data Logging</b> -Computing Systems -Data and information</p> <p><i>Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</i></p>	<p><b>Photo Editing</b> -Effective use of tools -Creating Media</p> <p><i>Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</i></p>	<p><b>Repetition in Games</b> -Programming -Data and information</p> <p><i>Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</i></p>
Year 3	<p><b>Online Relations (6)</b></p>	<p><b>Managing online information (6)</b> <b>Copyright and Ownership (1)</b></p>	<p><b>Online reputation (3)</b></p>	<p><b>Health and wellbeing (2)</b></p>	<p><b>Online bullying (2)</b> <b>Privacy and security (3)</b></p>	<p><b>Self image and identity (3)</b></p>
	<p><b>Connecting Computers</b> -Networks -Computer Systems</p> <p><i>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</i></p>	<p><b>Stop Frame Animation</b> -Effective use of tools -Creating Media</p> <p><i>Capturing and editing digital still images to produce a stop-frame animation that tells a story.</i></p>	<p><b>Sequencing sounds</b> -Programming -Design and Development</p> <p><i>Creating sequences in a block-based programming language to make music.</i></p>	<p><b>Branching Databases</b> -Data and Information -Effective use of tools</p> <p><i>Building and using branching databases to group objects using yes/no questions.</i></p>	<p><b>Desktop Publishing</b> -Effective use of tools -Creating Media</p> <p><i>Creating documents by modifying text, images, and page layouts for a specified purpose.</i></p>	<p><b>Events and Actions in Programs</b> -Programming -Design and Development</p> <p><i>Writing algorithms and programs that use a range of events to trigger sequences of actions.</i></p>
Year 2	<p><b>Online relationships – (7)</b></p>	<p><b>Self Image and Identity – (2)</b> <b>Online reputation – (3)</b> <b>Online Bullying - (3)</b></p>	<p><b>Managing online information – (5)</b></p>	<p><b>Privacy and security – (4)</b></p>	<p><b>Health, well-being and Lifestyle – (2)</b> <b>Copyright and ownership – (2)</b></p>	

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	<p><b>Information Technology around us</b>                      - Networks                      -Computing Systems</p> <p><i>Identifying IT and how its responsible use improves our world in school and beyond.</i></p>	<p><b>Digital Photography</b>                      -Effective use of tools                      -Creating Media</p> <p><i>Capturing and changing digital photographs for different purposes.</i></p>	<p><b>Robot algorithms</b>                      -Algorithms                      -Programming</p> <p><i>Creating and debugging programs, and using logical reasoning to make predictions.</i></p>	<p><b>Pictograms</b>                      -Data and Information                      -Effective use of tools</p> <p><i>Collecting data in tally charts and using attributes to organise and present data on a computer.</i></p>	<p><b>Making Music</b>                      -Creating Media                      -Data and Design</p> <p><i>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</i></p>	<p><b>Programming quizzes</b>                      - Programming                      -Data and Design</p> <p><i>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</i></p>
<b>YEAR 1</b>	<p><b>Self image and identity (2)</b>  <b>Online reputation (2)</b></p>	<p><b>Online relationships (4)</b></p>	<p><b>Online bullying (1)</b>  <b>Health wellbeing and lifestyle (1)</b></p>	<p><b>Managing online information (3)</b></p>	<p><b>Privacy and security (3)</b></p>	<p><b>Copywrite and ownership (4)</b></p>
	<p><b>Information Technology around us</b>                      - Algorithms                      - Computing Systems</p> <p><i>Recognising technology in school and using it responsibly.</i></p>	<p><b>Digital Painting</b>                      - Effective use of tools                      - Creating Media</p> <p><i>Choosing appropriate tools in a program to create art and making comparisons with working non-digitally.</i></p>	<p><b>Moving a Robot</b>                      - Algorithms                      - Programming</p> <p><i>Writing short algorithms and programs for floor robots, and predicting program outcomes</i></p>	<p><b>Grouping Data</b>                      - Data and Information                      - Algorithms</p> <p><i>Exploring object labels, then using them to sort and group objects by properties.</i></p>	<p><b>Digital Writing</b>                      - Creating Media                      - Effective use of tools</p> <p><i>Existing a computer to create and format text, before comparing to writing non-digitally</i></p>	<p><b>Programming animations</b>                      - Programming                      - Data and Design</p> <p><i>Designing and programming the movement of a character on screen to tell stories.</i></p>
<b>EYFS</b>	<p><b>Exploring technology in the environment</b></p> <p><i>Starting to recognise technology in school.</i></p>	<p><b>Exploring technology in the environment</b></p> <p><i>Starting to recognise technology around us.</i></p>	<p><b>Online safety – Smartie the Penguin</b></p> <p><i>Identifying how to be safe online and who to go to for help</i></p>	<p><b>Self-Image and Identity (1)</b></p> <p><b>Online Relationships (2)</b></p> <p><b>Health, Well-being and Lifestyle (2)</b></p>	<p><b>Online Reputation (1)</b></p> <p><b>Online Bullying (2)</b></p> <p><b>Managing Online Information (2)</b></p>	<p><b>Copyright and Ownership (2)</b></p> <p><b>Privacy and Security (2)</b></p>