

## Alfriston School Computing Curriculum Cycle

Pearl Class – EYFS					
Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<i>Computational Thinking</i>					
<p style="text-align: center;"><b>Awesome Autumn</b></p> <p>Autumn themed activities which see the children explore patterns in Garlands Galore, create a leaf labyrinth and make Pumpkin Soup using computational thinking skills.</p>	<p style="text-align: center;"><b>Super Space</b></p> <p>Space themed activities to develop pupils computational thinking and problem-solving skills. Include creating algorithms to direct a rocket through space and spotting patterns in pictures of aliens.</p>	<p style="text-align: center;"><b>Springtime</b></p> <p>Spring themed activities see the children make a Rabbit run, create Junk scarecrows and explore sequencing whilst planting seeds.</p>	<p style="text-align: center;"><b>Boats Ahoy</b></p> <p>Takes children on a journey of discovery as they investigate boats. Four activities make up this set of resources. Includes different uses of boats, floating and sinking predictions, creating a good boat through exploring designs and role play.</p>	<p style="text-align: center;"><b>Summer Fun</b></p> <p>Children explore their surroundings and get creative, take a journey and make a map, and discover seaside tangrams, in these three fun activities.</p>	<p style="text-align: center;"><b>Busy Bodies</b></p> <p>Activities that help children discover how bodies move and grow. Using the resources provided they explore and learn about parts of the body, growth and movement.</p> <p>Simple algorithms are created and adapted to form a routine of movements.</p>

## Alfriston School Computing Curriculum Cycle

### Ruby Class (Year 1 & 2) – Cycle A

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p style="text-align: center;"><b>Computing systems and networks</b></p> <p style="text-align: center;"><b>Technology Around Us</b></p> <p>Recognising technology in school and using it responsibly.</p>	<p style="text-align: center;"><b>Computing systems and networks</b></p> <p style="text-align: center;"><b>Information Technology Around Us</b></p> <p>Identifying IT and how it is responsible use improves our world in school and beyond.</p>	<p style="text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>Digital Painting</b></p> <p>Choosing appropriate tools in a programme to create art, and making comparisons with working non-digitally.</p>	<p style="text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>Digital Photography</b></p> <p>Capturing and changing digital photographs for different purposes.</p>	<p style="text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Moving a Robot</b></p> <p>Writing short algorithms and programs for floor robots, and predicting program outcomes.</p>	<p style="text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Robot Algorithms</b></p> <p>Creating and de-bugging programs, and using logical reasoning to make predictions.</p>

### Ruby Class (Year 1 & 2) – Cycle B

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p style="text-align: center;"><b>Data and information</b></p> <p style="text-align: center;"><b>Grouping Data</b></p> <p>Exploring object labels, then using them to sort and group objects by properties.</p>	<p style="text-align: center;"><b>Data and information</b></p> <p style="text-align: center;"><b>Pictograms</b></p> <p>Collecting data in tally charts and using attributes to organise and present data on a computer.</p>	<p style="text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>Digital Writing</b></p> <p>Using a computer to create and format text, before comparing to writing non-digitally.</p>	<p style="text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>Digital Music</b></p> <p>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p>	<p style="text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Programming Animations</b></p> <p>Designing and programming the movement of a character on screen to tell stories.</p>	<p style="text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Programming Quizzes</b></p> <p>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p>

## Alfriston School Computing Curriculum Cycle

### Sapphire Class (Year 3 & 4) – Cycle A

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p style="text-align: center;"><b>Computing systems and networks</b> Connecting Computers</p> <p>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p style="text-align: center;"><b>Computing systems and networks</b> The Internet</p> <p>Recognising the internet as a network of networks including the World Wide Web, and why we should evaluate online content.</p>	<p style="text-align: center;"><b>Creating media</b> Stop-frame Animation</p> <p>Capturing and editing digital still images to produce a stop-frame animation that tells a story.</p>	<p style="text-align: center;"><b>Creating media</b> Audio Production</p> <p>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p>	<p style="text-align: center;"><b>Programming</b> Sequencing Sounds</p> <p>Creating sequences in a block-based programming language to make music.</p>	<p style="text-align: center;"><b>Programming</b> Repetition in Shapes</p> <p>Using a text-based programming language to explore-controlled loops when drawing shapes.</p>

### Sapphire Class (Year 3 & 4) – Cycle B

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p style="text-align: center;"><b>Data and information</b> Branching Databases</p> <p>Building and using branching databases to group objects using yes/no questions.</p>	<p style="text-align: center;"><b>Data and information</b> Data Logging</p> <p>Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</p>	<p style="text-align: center;"><b>Creating media</b> Desktop Publishing</p> <p>Creating documents by modifying texts, images, and page layouts for a specified purpose.</p>	<p style="text-align: center;"><b>Creating media</b> Photo Editing</p> <p>Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p>	<p style="text-align: center;"><b>Programming</b> Events and Actions in Programs</p> <p>Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>	<p style="text-align: center;"><b>Programming</b> Repetition in Games</p> <p>Using block-based programming language to explore count-controlled and infinite loops when creating a game.</p>

## Alfriston School Computing Curriculum Cycle

Emerald Class (Year 5 & 6) – Cycle A					
Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p style="color: green; text-align: center;"><b>Computing systems and networks</b></p> <p style="text-align: center;"><b>Systems and Searching</b></p> <p>Recognising IT systems in the world and how some can enable searching on the internet.</p>	<p style="color: green; text-align: center;"><b>Computing systems and networks</b></p> <p style="text-align: center;"><b>Communication and Collaboration</b></p> <p>Exploring how data is transferred by working collaboratively online</p>	<p style="color: blue; text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>Video Production</b></p> <p>Planning, capturing and editing video to produce a short film.</p>	<p style="color: blue; text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>Webpage Creation</b></p> <p>Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.</p>	<p style="color: orange; text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Selection in Quizzes</b></p> <p>Exploring selection in programming to design and code an interactive quiz.</p>	<p style="color: orange; text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Variables in Games</b></p> <p>Exploring variables when designing and coding a game.</p>
Emerald Class (Year 5 & 6) – Cycle B					
Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p style="color: red; text-align: center;"><b>Data and information</b></p> <p style="text-align: center;"><b>Flat-File Databases</b></p> <p>Using a database to order data and create charts to answer questions.</p>	<p style="color: red; text-align: center;"><b>Data and information</b></p> <p style="text-align: center;"><b>Introduction to Spreadsheets</b></p> <p>Answering questions by using spreadsheets to organise and calculate data.</p>	<p style="color: blue; text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>Introduction to Vector Graphics</b></p> <p>Creating images in a drawing program by using layers and groups of objects.</p>	<p style="color: blue; text-align: center;"><b>Creating media</b></p> <p style="text-align: center;"><b>3D Modelling</b></p> <p>Planning, developing and evaluating 3D computer models of physical objects.</p>	<p style="color: orange; text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Selection in Physical Computing</b></p> <p>Exploring conditions and selection using a programmable microcontroller.</p>	<p style="color: orange; text-align: center;"><b>Programming</b></p> <p style="text-align: center;"><b>Sensing Movement</b></p> <p>Designing and coding a project that captures inputs from a physical device.</p>