

# Alfriston School

## Computing Curriculum Cycle

Pearl Class (Reception) – EYFS					
Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<p><b>Marvellous Me!</b></p> <p>I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).</p> <p>I can give examples of when I should ask permission to do something online and explain why this is important.</p> <p>I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples of these rules.</p> <p>I can recognise, online or offline, that anyone can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask'</p>	<p><b>Let's Celebrate</b></p> <p>I can recognise some ways in which the internet can be used to communicate.</p> <p>I can give examples of how I (might) use technology to communicate with people I know.</p> <p>I can give examples of when I should ask permission to do something online and explain why this is important.</p>	<p><b>Off We Go!</b></p> <p>I can give examples of when I should ask permission to do something online and explain why this is important.</p> <p>I can recognise that information can stay online and could be copied.</p> <p>I can describe what information I should not put online without asking a trusted adult first.</p>	<p><b>The Bear Necessities</b></p> <p>I can describe ways that some people can be unkind online.</p> <p>I can offer examples of how this can make others feel.</p> <p>I can describe how to behave online in ways that do not upset others and can give examples.</p>	<p><b>Glorious Growing</b></p> <p>I can talk about how to use the internet as a way of finding information online.</p> <p>I can identify devices I could use to access information on the internet.</p> <p>I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching).</p> <p>I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke.</p> <p>I know how to get help from a trusted adult if we see content that makes us feel sad,</p>	<p><b>Ahoy, there!</b></p> <p>I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).</p> <p>I can describe who would be trustworthy to share this information with; I can explain why they are trusted.</p>

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<p>to somebody who makes them feel sad, uncomfortable, embarrassed or upset.</p> <p>I can recognise that there may be people online who could make someone feel sad, embarrassed or upset.</p> <p>If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help</p>				<p>uncomfortable worried or frightened.</p>	
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Ruby Class (Year 1 & 2) – Key Stage 1					
Term 1 (Yr1)	Cycle A - Term 2	Cycle A - Term 3	Cycle A - Term 4	Cycle A - Term 5	Cycle A - Term 6
<b>Explorers</b> <b>Technology Around Us</b> To identify technology To identify a computer and its main parts To use a mouse in different ways To use a keyboard to type To use the keyboard to edit text To create rules for using technology responsibly	<b>Around the World</b> <b>Digital Painting</b> To describe what different freehand tools do To use the shape tool and the line tools To make careful choices when painting a digital picture To explain why I chose the tools I used To use a computer on my own to paint a picture To compare painting a picture on a computer and on paper	<b>Dinosaurs</b> <b>Digital Photography</b> To know what devices can be used to take photographs To use a digital device to take a photograph To describe what makes a good photograph To decide how photographs can be improved To use tools to change an image To recognise that images can be changed	<b>Giants</b> <b>Grouping Data</b> To label objects To identify that objects can be counted To describe objects in different ways To count objects with the same properties To compare groups of objects To answer questions about groups of objects	<b>Growing</b> <b>Moving a Robot</b> To explain what a given command will do To act out a given word To combine forwards and backwards commands to make a sequence To combine four direction commands to make sequences To plan a simple program To find more than one solution to a problem	<b>The Seaside</b> <b>Robot Algorithms</b> To describe a series of instructions as a sequence To explain what happens when we change the order of instructions To use logical reasoning to predict the outcome of a program (series of commands) To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written
Term 1 (Yr2)	Cycle B - Term 2	Cycle B - Term 3	Cycle B - Term 4	Cycle B - Term 5	Cycle B - Term 6
<b>Down Under</b> <b>Technology Around Us</b> To recognise the uses and features of information technology To identify information technology in the home	<b>Fire</b> <b>Digital Writing</b> To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer	<b>Winter Wonderland</b> <b>Making Music</b> To say how music can make us feel To identify that there are patterns in music To describe how music can be used in different ways	<b>Space</b> <b>Pictograms</b> To recognise that we can count and compare objects using tally charts To recognise that objects can be represented as pictures	<b>Green</b> <b>Introduction to Animation</b> To choose a command for a given purpose To show that a series of commands can be joined together To identify the effect of changing a value	<b>It's a Bug's Life</b> <b>An Introduction to Quizzes</b> To explain that a sequence of commands has a start To explain that a sequence of commands has an outcome

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<p>To identify information technology beyond school</p> <p>To explain how information technology benefits us</p> <p>To show how to use information technology safely</p> <p>To recognise that choices are made when using information technology</p>	<p>To make careful choices when changing text</p> <p>To explain why I used the tools that I chose</p> <p>To compare writing on a computer with writing on paper</p>	<p>To show how music is made from a series of notes</p> <p>To create music for a purpose</p> <p>To review and refine our computer work</p>	<p>To create a pictogram</p> <p>To select objects by attribute and make comparisons</p> <p>To recognise that people can be described by attributes</p> <p>To explain that we can present information using a computer</p>	<p>To explain that each sprite has its own instructions</p> <p>To design the parts of a project</p> <p>To use my algorithm to create a program</p>	<p>To create a program using a given design</p> <p>To change a given design</p> <p>To create a program using my own design</p> <p>To decide how my project can be improved</p>
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Sapphire Class (Year 3 & 4) – Lower Key Stage 2					
Cycle A - Term 1	Cycle A - Term 2	Cycle A - Term 3	Cycle A - Term 4	Cycle A - Term 5	Cycle A - Term 6
<b>The Sound Collector</b> <b>Connecting Computers</b> To explain how digital devices function To identify input and output devices To recognise how digital devices can change the way we work To explain how a computer network can be used to share information To explore how digital devices can be connected To recognise the physical components of a network	<b>Meet the Flintstones</b> <b>Animation</b> To explain that animation is a sequence of drawings or photographs To relate animated movement with a sequence of images To plan an animation To identify the need to work consistently and carefully To review and improve an animation To evaluate the impact of adding other media to an animation	<b>Romans – Escape from Pompeii</b> <b>Audio Editing</b> To identify that sound can be digitally recorded To use a digital device to record sound To explain that a digital recording is stored as a file To explain that audio can be changed through editing To show that different types of audio can be combined and played together To evaluate editing choices made	<b>Romans – The Empire Strikes Back</b> <b>Branching Databases</b> To create questions with yes/no answers To identify the object attributes needed to collect relevant data To create a branching database To identify objects using a branching database To explain why it is helpful for a database to be well structured To compare the information shown in a pictogram with a branching database	<b>Tales from Europe</b> <b>Sequence in Music</b> To explore a new programming environment I can identify that each sprite is controlled by the commands I choose To explain that a program has a start To recognise that a sequence of commands can have an order To change the appearance of my project To create a project from a task description	<b>Much Ado About Nothing</b> <b>Repetition in Shapes</b> To identify that accuracy in programming is important To create a program in a text-based language To explain what 'repeat' means To modify a count-controlled loop to produce a given outcome To decompose a program into parts To create a program that uses count-controlled loops to produce a given outcome
Cycle B - Term 1	Cycle B - Term 2	Cycle B - Term 3	Cycle B - Term 4	Cycle B - Term 5	Cycle B - Term 6
<b>Around the World</b> <b>The Internet</b> To describe how networks physically connect to other networks To recognise how networked devices make up the internet	<b>Wonderful Warriors</b> <b>Desktop Publishing</b> To recognise how text and images convey information To recognise that text and layout can be edited To choose appropriate page settings	<b>Ancient Greece - Legends</b> <b>Photo Editing</b> To explain that digital images can be changed To change the composition of an image	<b>Ancient Greece - Legacy</b> <b>Data Logging</b> To explain that data gathered over time can be used to answer questions	<b>The Paradise Garden</b> <b>Events and Actions</b> To explain how a sprite moves in an existing project To create a program to move a sprite in four directions	<b>It's Not Easy Being Green</b> <b>Repetition in Games</b> To develop the use of count-controlled loops in a different programming environment

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<p>To outline how websites can be shared via the World Wide Web</p> <p>To describe how content can be added and accessed on the World Wide Web</p> <p>To recognise how the content of the WWW is created by people</p> <p>To evaluate the consequences of unreliable content</p>	<p>To add content to a desktop publishing publication</p> <p>To consider how different layouts can suit different purposes</p> <p>To consider the benefits of desktop publishing</p>	<p>To describe how images can be changed for different uses</p> <p>To make good choices when selecting different tools</p> <p>To recognise that not all images are real</p> <p>To evaluate how changes can improve an image</p>	<p>To use a digital device to collect data automatically</p> <p>To explain that a data logger collects 'data points' from sensors over time</p> <p>To use data collected over a long duration to find information</p> <p>To identify the data needed to answer questions</p> <p>To use collected data to answer questions</p>	<p>To adapt a program to a new context</p> <p>To develop my program by adding features</p> <p>To identify and fix bugs in a program</p> <p>To design and create a maze-based challenge</p>	<p>To explain that in programming there are infinite loops and count controlled loops</p> <p>To develop a design which includes two or more loops which run at the same time</p> <p>To modify an infinite loop in a given program</p> <p>To design a project that includes repetition</p> <p>To create a project that includes repetition</p>
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Emerald Class (Year 5 & 6) – Upper Key Stage 2					
Cycle A - Term 1	Cycle A - Term 2	Cycle A - Term 3	Cycle A - Term 4	Cycle A - Term 5	Cycle A - Term 6
<b>Out of this World Communication</b> To identify how to use a search engine To describe how search engines select results To explain how search results are ranked To recognise why the order of results is important, and to whom To recognise how we communicate using technology To evaluate different methods of online communication	<b>The Great War (WW1) Video Editing</b> To recognise video as moving pictures, which can include audio To identify digital devices that can record video To capture video using a digital device To recognise the features of an effective video To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video	<b>The Home Front (WW2) Web Page Creation</b> To review an existing website and consider its structure To plan the features of a web page To consider the ownership and use of images (copyright) To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people	<b>Journey to Mecca Spreadsheets</b> To explain that formula can be used to produce calculated data To apply formulas to data, including duplicating	<b>Sussex Landscape Variables in Games</b> To define a 'variable' as something that is changeable To explain why a variable is used in a program To choose how to improve a game by using variables To design a project that builds on a given example To use my design to create a project To evaluate my project	<b>Pirates and Smugglers Sensing</b> To create a program to run on a controllable device To explain that selection can control the flow of a program To update a variable with a user input To use an conditional statement to compare a variable to a value To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device
Cycle B - Term 1	Cycle B - Term 2	Cycle B - Term 3	Cycle B - Term 4	Cycle B - Term 5	Cycle B - Term 6
<b>The Amazing Americas Sharing Information</b> To explain that computers can be connected together to form systems	<b>Victorians Vector Drawing</b> To identify that drawing tools can be used to produce different outcomes To create a vector drawing by combining shapes	<b>Secret Agents 3D Modelling</b> To use a computer to create and manipulate three-dimensional (3D) digital objects	<b>Ancient Egypt Flat-File Databases</b> To use a form to record information To compare paper and computer-based databases To outline how grouping and then	<b>Journey to the River Sea Selection in Physical Computing</b> To control a simple circuit connected to a computer	<b>Freedom – The Slave Trade Selection in Quizzes</b> To explain how selection is used in computer programs To relate that a conditional statement

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<p>To recognise the role of computer systems in our lives</p> <p>To recognise how information is transferred over the internet</p> <p>To explain how sharing information online lets people in different places work together</p> <p>To contribute to a shared project online</p> <p>To evaluate different ways of working together online</p>	<p>To use tools to achieve a desired effect</p> <p>To recognise that vector drawings consist of layers</p> <p>To group objects to make them easier to work with</p> <p>To evaluate my vector drawing</p>	<p>To compare working digitally with 2D and 3D graphics</p> <p>To construct a digital 3D model of a physical object</p> <p>To identify that physical objects can be broken down into a collection of 3D shapes</p> <p>To design a digital model by combining 3D objects</p> <p>To develop and improve a digital 3D model</p>	<p>sorting data allows us to answer questions</p> <p>To explain that tools can be used to select specific data</p> <p>To explain that computer programs can be used to compare data visually</p> <p>To apply my knowledge of a database to ask and answer real-world questions</p>	<p>To write a program that includes count-controlled loops</p> <p>To explain that a loop can stop when a condition is met, eg number of times</p> <p>To conclude that a loop can be used to repeatedly check whether a condition has been met</p> <p>To design a physical project that includes selection</p> <p>To create a controllable system that includes selection</p>	<p>connects a condition to an outcome</p> <p>To explain how selection directs the flow of a program</p> <p>To design a program which uses selection</p> <p>To create a program which uses selection</p> <p>To evaluate my program</p>
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