

Ashford Oaks Primary School Computing Scheme of Work – Year 2

	Multimedia and Word processing	Digital media	Programming 2 forms/languages	Communication and Collaboration	Data	E-Safety
Year 2	<ul style="list-style-type: none"> <li>Begin to word process short narrative and non-narrative texts</li> <li>Develop basic editing skills including different presentational features (font size, colour and style)</li> <li>Select from different presentational features e.g. title, paragraph, label etc</li> <li>Word process short narrative and non-narrative texts</li> <li>Save, print, retrieve and amend their work</li> <li>Use the mouse or arrow keys to insert words and sentences</li> <li>Use appropriate editing tools to improve their work</li> <li>Make use of graphics, video and sound to enhance their text on screen</li> <li>Talk about their use of graphics and sound and how it may enhance or change the mood and atmosphere of their presentation and make changes where appropriate</li> <li>Use different layouts and templates for different purposes</li> </ul>	<p><b>Graphics</b></p> <ul style="list-style-type: none"> <li>Use ICT to source, generate and amend ideas for their art work</li> <li>Talk about the advantages and disadvantages of using a graphics package over paper based art activities</li> <li>Develop a variety of skills using a range of tools and techniques to communicate a specific idea or artistic style /effect</li> <li>Create a stamp to make patterns and designs</li> <li>Describe to others their use of a paint package and their reason for choice of tools</li> </ul> <p><b>Digital Imagery</b></p> <ul style="list-style-type: none"> <li>Develop greater control over the digital stills or video camera</li> <li>Begin to discuss the quality of their image and make decisions (e.g delete a blurred / bad image)</li> <li>Begin to select and edit and change images</li> <li>Begin to change or enhance photographs and pictures (crop, re-colour)</li> </ul> <p><b>Animation</b></p> <ul style="list-style-type: none"> <li>Create a sequence of still images which together form a short animated sequence</li> <li>Create a simple animation to illustrate a story or idea</li> <li>Upload their images on the learning platform</li> </ul>	<p><b>Programming Unit 1: Robots</b></p> <ul style="list-style-type: none"> <li>Talk about how everyday devices can be controlled</li> <li>Know that devices and actions on screen may be controlled by sequences of actions and instructions</li> <li>Create a sequence of instructions to create a right-angled shape on screen</li> <li>Create a sequence of instructions to control a programmable robot to carry out a pre-determined route to include direction, distance and turn (on screen or floor robot)</li> <li>Control a floor robot using appropriate buttons, Make predictions and estimate distances and turns</li> <li>Experience a range of control devices such as a microscope, sound recorders, cameras and other devices</li> <li>Control music software through sequencing icons ( see sound and music modules)</li> </ul> <p><b>Programming Unit 2: Move the turtle</b></p> <ul style="list-style-type: none"> <li>Generate a sequence of instructions including 'right angle' turns.</li> <li>Create a sequence of instructions to generate simple geometric shapes (oblong /square).</li> <li>Discuss how to improve/change their sequence of commands.</li> </ul>	<p><b>Messaging</b></p> <ul style="list-style-type: none"> <li>Compare all the different ways that messages can be sent and start to consider their advantages and disadvantages</li> <li>Contribute and discuss ideas to compose and respond to class/group/individual e-mails, forums, blogs</li> </ul> <p><b>Publishing: ( Refer to Multimedia Unit)</b></p> <ul style="list-style-type: none"> <li>Contribute and discuss ideas to compose and respond to discussions and forums on the Learning platform</li> <li>Begin to talk about the advantages of using electronic communications in terms of sharing pages and information with a wider audience at home and school</li> <li>Look and talk about other people's contributions on the learning platform</li> <li>Consider who can see their contributions on the learning platform</li> </ul>	<ul style="list-style-type: none"> <li>Develop different criteria and create own pictograms</li> <li>Use a simple graphing package to record information - add labels and numbers as appropriate</li> <li>Use ICT to edit and change the information quickly.</li> <li>Talk about how ICT helps them to organise their information</li> <li>Save , retrieve and amend their work</li> <li>Use a graphs to create and answer questions</li> </ul> <p><b>Branching Database</b></p> <ul style="list-style-type: none"> <li>Understand the difference between questions and answers</li> <li>Ask questions that comply with the rule that it can only have a yes or no answer</li> <li>Use a branching database to identify objects using yes or no questions</li> </ul>	<p><b>E-Safety</b></p> <p><b>Online Research</b></p> <p>Children explore a range of age-appropriate digital resources.</p> <p>Children to know that not everything they find online is accurate.</p> <p>Know that some websites contain advertisements (often embedded) and learn how to ignore them.</p> <p>Children to know what to do if they find something inappropriate online.</p> <p>Children discuss, understand and abide by the school's e-Safety SMART Rules</p> <p><b>E-Safety</b></p> <p><b>Communication &amp; Collaboration</b></p> <p>Children are able to send suitable and purposeful emails, developing awareness of appropriate language to use.</p> <p>Children know that passwords help to keep information safe and secure and that they should not be shared</p> <p>Children contribute to a class discussion forum.</p> <p><b>E-Safety</b></p> <p><b>E-Awareness</b></p> <p>Children are aware that not everyone they meet online is automatically trustworthy.</p> <p>Children understand that personal information is unique to them and should not be shared without a teacher or parent's permission.</p> <p>Children identify characteristics of people who are worthy of their trust.</p>

Unit/Project	Statutory requirements/ key skills	Notes	Possible outcomes and activities
<p>Multimedia and Word processing</p> <p><b>Comp KS1 3,4 (5)</b></p>	<ul style="list-style-type: none"> <li>• Begin to word process short narrative and non-narrative texts</li> <li>• Develop basic editing skills including different presentational features (font size, colour and style)</li> <li>• Select from different presentational features e.g. title, paragraph, label etc</li> <li>• Word process short narrative and non-narrative texts</li> <li>• Save, print, retrieve and amend their work</li> <li>• Use the mouse or arrow keys to insert words and sentences</li> <li>• Use appropriate editing tools to improve their work</li> <li>• Make use of graphics, video and sound to enhance their text on screen</li> <li>• Talk about their use of graphics and sound and how it may enhance or change the mood and atmosphere of their presentation and make changes where appropriate</li> <li>• Use different layouts and templates for different purposes</li> </ul>	<p><b>Purple Mash</b></p> <p><b>2Create A Story</b> - a simple story editor that allows children to add pages and draw pictures to go with their story. Simple animations can then be chosen for the pictures.</p> <p><b>2Publish</b> - many templates to include a number of pictures and sentences.</p> <p><b>Use Chromebook - google docs to open files, work collaboratively - easy to take a photo directly from google doc</b></p>	<p><b>Combine text, images and possibly other features to create either a printable document or a simple multimedia presentation. Ensure all choices suit the purpose.</b></p> <p>Literacy - type a story written during literacy and add a picture.</p> <p>Literacy - Type information texts incorporating labelled pictures and diagrams linked to Where in the World Topic.</p> <p>Science - write about a concept, such as forces, and add a picture.</p>
<p><b>Graphics</b></p> <p><b>Comp KS1 3,4 (5)</b></p>	<ul style="list-style-type: none"> <li>• Use ICT to source, generate and amend ideas for their art work</li> <li>• Talk about the advantages and disadvantages of using a graphics package over paper based art activities</li> <li>• Develop a variety of skills using a range of tools and techniques to communicate a specific idea or artistic style /effect</li> <li>• Create a stamp to make patterns and designs</li> <li>• Describe to others their use of a paint package and their reason for choice of tools</li> </ul>	<p><b>Purple Mash</b></p> <p><b>2Paint A Picture</b> - Can produce artwork in different styles e.g. mosaic, impressionism etc...</p> <p><b>2Publish</b> - many templates to include a number of pictures and sentences.</p> <p><b>2Create A Story</b> - is a simple story editor that includes pages and an area for pictures. Simple animations can then be chosen for the pictures.</p>	<p><b>Use a range of tools in a paint package to create a picture to suit a purpose.</b></p> <p>PSHCE - Children to design a picture based on anything important to them.</p> <p>Geography - use a paint package to create map of a focus island</p> <p>DT - use a paint package to create a</p>

	<ul style="list-style-type: none"> <li></li> </ul>		<p>design for a project or model.</p> <p>Children could work in pairs to design half a picture each.</p>
<p><b>Digital Imagery</b></p> <p><b>Comp KS1 3,4 (5)</b></p>	<ul style="list-style-type: none"> <li>Develop greater control over the digital stills or video camera</li> <li>Begin to discuss the quality of their image and make decisions (e.g delete a blurred / bad image)</li> <li>Begin to select and edit and change images</li> <li>Begin to change or enhance photographs and pictures (crop, re-colour)</li> </ul> <p><b>Animation</b></p> <ul style="list-style-type: none"> <li>Create a sequence of still images which together form a short animated sequence</li> <li>Create a simple animation to illustrate a story or idea</li> <li>Upload their images on the learning platform</li> </ul>	<p><b>Digital camera - Chromebook photo/ video functions</b>  <b>Also potential to add a simple stop motion animation app to Chromebooks.</b></p> <p><b>Purple Mash</b>  <b>2Aimate</b> - Simple animation program</p>	<p><b>Use a digital camcorder and camera; download with support and use for a purpose</b></p> <p>Topic - Take pictures of different exercises and edit and add labels to suggest how they will help.</p> <p>Literacy - use a digital camcorder to record drama work.</p> <p>Literacy - Recreate a story using stop motion animation</p> <p>Take a series of photographs to create an animation or slideshow to illustrate a concept.</p> <p>Art- Manipulate photos of themselves e.g. make black and white or change colours of different parts</p>
<p>Programming Unit 1: Probots</p> <p><b>Comp KS1 1,2, 3 (5)</b></p>	<ul style="list-style-type: none"> <li>Talk about how everyday devices can be controlled</li> <li>Know that devices and actions on screen may be controlled by sequences of actions and instructions</li> <li>Create a sequence of instructions to create a right-angled shape on screen</li> <li>Create a sequence of instructions to control a programmable robot to</li> </ul>	<p><b>Floor robot</b> - Use Bee-Bot or Pixie - Devices which allow for input of instructions.</p> <p><b>Mats and obstacles</b> - There are mats with fixed distance which link to the Bee-Bots</p> <p><b>Purple Mash</b>  <b>2 Code</b> - (see Y2 planning on Purple Mash)  <b>2 Go</b>  <b>Logo</b></p>	<p><b>Predict, estimate and create a set of instructions to control a floor robot to move between two or more fixed points involving distance and turn.</b></p> <p>Topic - Class to guide a Probot from one place of an</p>

	<p>carry out a pre-determined route to include direction, distance and turn (on screen or floor robot)</p> <ul style="list-style-type: none"> <li>Control a floor robot using appropriate buttons, Make predictions and estimate distances and turns</li> <li>Experience a range of control devices such as a microscope, sound recorders, cameras and other devices</li> <li>Control music software through sequencing icons ( see sound and music modules)</li> </ul>		<p>island to another. Debug route until challenge is met.</p> <p>Maths - <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math> turns, position, direction and movement, use the robots to make shapes (square, rectangle, octagon), repeating patterns.</p> <p>PE - movement and turns.</p> <p>Literacy - use floor robot to visit characters/ pictures from a story in order.</p>
<p><b>Programming Unit 2: Move the turtle</b></p> <p><b>Comp KS1 1,2, 3 (5)</b></p>	<ul style="list-style-type: none"> <li>Generate a sequence of instructions including 'right angle' turns.</li> <li>Create a sequence of instructions to generate simple geometric shapes (oblong /square).</li> <li>Discuss how to improve/change their sequence of commands.</li> </ul>	<p><b>Use 2Go in Purple Mash</b>  <a href="http://www.mathplayground.com/mathprogramming.html">http://www.mathplayground.com/mathprogramming.html</a></p>	<p><b>Create a set of online instructions to meet a challenge e.g. a shape or right angle.</b></p> <p>Maths - Create different simple shapes using program.</p>
<p>Communication and Collaboration</p> <p><b>Comp KS1 3,4 (5)</b></p>	<p><b>Messaging</b></p> <ul style="list-style-type: none"> <li>Compare all the different ways that messages can be sent and start to consider their advantages and disadvantages</li> <li>Contribute and discuss ideas to compose and respond to class/group/individual e-mails, forums, blogs</li> </ul> <p><b>Publishing: ( Refer to Multimedia Unit)</b></p> <ul style="list-style-type: none"> <li>Contribute and discuss ideas to compose and respond to discussions and forums on the Learning platform</li> <li>Begin to talk about the advantages of using electronic communications</li> </ul>	<p><b>Email - Class email</b>  <b>VLE -School's online classroom</b> where children's work can be uploaded. Also has chat, vote, quiz and forum functions  <b>PURPLE MASH - 2 Blog, 2 Email</b></p> <p><b>Link to e-Safety</b></p> <ul style="list-style-type: none"> <li>Children know the difference between communicating via email and online in a discussion forum</li> <li>Children are aware of the different forms of online communication (email, forums, instant messaging and social networking sites) and find out about their associated risks.</li> <li><b>(See the Purple Mash unit - 2Respond) Y2</b></li> </ul>	<p><b>Share and comment on work online, developing understanding about appropriate behaviour and internet safety</b></p> <p>Work with another class to create a shared text through email/forums.</p> <p>Maths- Send questions to other classes/children around the school and tally the results.</p> <p>Science - Create a page about Staying Alive and what has</p>

	<p>in terms of sharing pages and information with a wider audience at home and school</p> <ul style="list-style-type: none"> <li>• Look and talk about other people's contributions on the learning platform</li> <li>• Consider who can see their contributions on the learning platform</li> <li>•</li> </ul>		<p>been learnt over the topic</p> <p>→ Email to other classes to look at the created page and then respond in a forum</p>
<p>Handling Data</p> <p><b>Comp KS1 3,4 (5)</b></p>	<ul style="list-style-type: none"> <li>• Develop different criteria and create own pictograms</li> <li>• Use a simple graphing package to record information - add labels and numbers as appropriate</li> <li>• Use ICT to edit and change the information quickly.</li> <li>• Talk about how ICT helps them to organise their information</li> <li>• Save , retrieve and amend their work</li> <li>• Use a graphs to create and answer questions</li> </ul> <p><b>Branching Database</b></p> <ul style="list-style-type: none"> <li>• Understand the difference between questions and answers</li> <li>• Ask questions that comply with the rule that it can only have a yes or no answer</li> <li>• Use a branching database to identify objects using yes or no questions</li> </ul>	<p>Suggested Resources</p> <p>2Count which allows the creation of pictograms</p> <p>2Graph - Input results and create bar, pie or line graphs</p> <p>2Question which allows the creation of pictograms</p> <p><b>Unit 2.4 Questioning - Purple Mash</b></p>	<p><b>Use a graphing package and a simple database to collect, organise and classify data, asking and answering questions.</b></p> <p>PSHCE - collect information on favourite snacks, put it in a graph and discuss the results.</p> <p>Geog - Collect information about the weather each day for a month, organise into graphs to find out the most common weather.</p> <p>Topic - Collect information about favourite place to visit. Represent as a graph.</p> <p>Science - Collect information about minibeasts/plants.</p> <p>Science - Create a database to identify minibeasts.</p>

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Unit/Project	Statutory requirements/ key skills	Notes	Possible outcomes and activities
<p><b>E-Safety Online Research</b></p> <p><b>Comp KS1 5</b></p>	<ul style="list-style-type: none"> <li>Children explore a range of age-appropriate digital resources.</li> <li>Children to know that not everything they find online is accurate.</li> <li>Know that some websites contain advertisements (often embedded) and learn how to ignore them.</li> <li>Children to know what to do if they find something inappropriate online.</li> <li>Children discuss, understand and abide by the school's e-Safety SMART Rules</li> </ul>	<p>Dongle Stay Safe quiz and reinforce SMART rules from <a href="#">CBBC Staysafe</a></p> <p>Websites to aid research, e.g.; <a href="#">Barnaby website</a> to find out about his trips and how he travels.</p> <p>School's Poster 'Being SMART Online Rules'</p> <p>SMART Rule - Know that not information online is RELIABLE and true. Ask an adult if you are unsure.</p> <p>SMART Rules - TELL someone if you see something that makes you feel uncomfortable.</p>	<p>This could be taught as a separate Life Skills lesson or as part of another ICT lesson.</p> <p>Refer to the E-SMART rules.</p>
<p><b>E-Safety Communication &amp; Collaboration</b></p> <p><b>Comp KS1 5</b></p>	<p>Children are able to send suitable and purposeful emails, developing awareness of appropriate language to use.</p> <p>Children know that passwords help to keep information safe and secure and that they should not be shared</p> <p>Children contribute to a class discussion forum.</p>	<p>Discussion forums or messaging system on school learning platform.</p> <p>School email system</p> <p>SMART Rule - Only send and read MESSAGES with people you know. Messages should always be polite.</p> <p>SMART Rule - Keep passwords and other special information SAFE</p>	<p>This could be taught as a separate Life Skills lesson or as part of another ICT lesson.</p> <p>Refer to the E-SMART rules.</p>
<p><b>E-Safety E-Awareness</b></p> <p><b>Comp KS1 5</b></p>	<p>Children are aware that not everyone they meet online is automatically trustworthy.</p> <p>Children understand that personal information is unique to them and should not be shared without a teacher or parent's permission.</p> <p>Children identify characteristics of people who are worthy of their trust.</p>	<p>FauxPaw video from <a href="#">iKeepSafe.org</a> to highlight that not everyone is trustworthy</p> <p>CEOP Thinkuknow resources, based on Hector's World. <a href="http://www.thinkuknow.co.uk/5_7/">www.thinkuknow.co.uk/5_7/</a></p> <p>lesson 1 - personal information is special</p> <p>lesson 2 - not everyone is trustworthy</p> <p>lesson 3 - assessing trustworthiness</p> <p>lesson 4 - being alert to unsafe situations</p> <p>lesson 5 - check with an adult</p> <p>Dongle Pop video and <a href="#">StaySafe quiz</a> (to introduce SMART rules-</p>	<p>This could be taught as a separate Life Skills lesson or as part of another ICT lesson.</p> <p>Refer to the E-SMART rules.</p>

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		<p>All but the rule for M is the same as our school's SMART Rules)</p> <p>SMART Rules - Know that not all information online is RELIABLE and true. Ask an adult if you are unsure.</p> <p>SMART Rule - Keep passwords and other special information SAFE</p>	
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