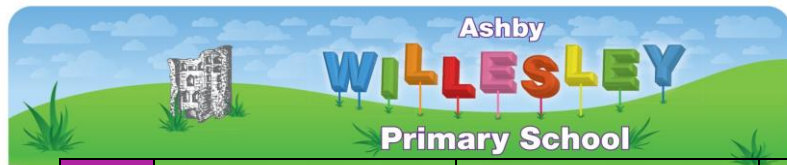




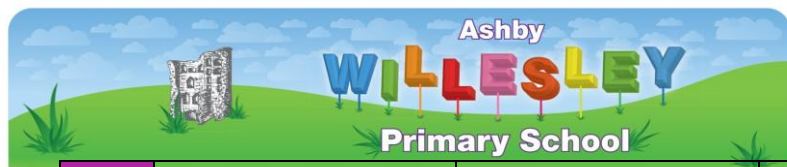
## Long Term Plan: Computing

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<b>Data Handling/ Multimedia</b> Use technology to collect information including photos/video/sound IWB – drag/drop/click	<b>Data Handling/ Multimedia</b> Use laptop/mouse Use laptop numbers/keyboard IWB – letter formation	<b>Programming Skills</b> Give and follow instructions in order to move around Describe what happens when I press buttons in a robot ( <b>Beebots</b> ) Press buttons in the correct order to make my robot do what I want  <b>Multimedia</b> Use of appropriate apps linked to literacy and numeracy skills	<b>Multimedia</b> Sound/letter recognition on keyboard	<b>Data Handling/ Multimedia</b> Use technology to collect information including photos/video/sound	
	<b>E-safety</b> Don't buy anything without adult consent      Only play games/watch what an adult has agreed to      Always show your grown-up what you are doing.					
Year 1	<b>Data Handling</b> Use technology to collect information including photos/video/sound Discuss ways in which information can be shown?  <b>Technology in our Lives</b> Recognise the ways technology is used in our classroom/community and home, and its benefits  <b>Multimedia</b> Be creative with different technology tools Use technology to create and present my idea ( <b>Tux Paint</b> )	<b>Data Handling</b> Add information to a pictograph -talk to you about what I have found out ( <a href="#">linked to Maths</a> ) Discuss different ways in which information can be shown  <b>Technology in our Lives</b> Recognise the ways technology is used in our classroom/community and home, and its benefits  <b>Multimedia</b> Use the keyboard or a word bank on my device to enter text ( <b>lpad/Laptop</b> ) Save information in a special place and retrieve it again	<b>Data Handling</b> Add information to a pictograph -talk to you about what I have found out ( <a href="#">linked to Maths</a> ) Discuss different ways in which information can be shown  <b>Technology in our Lives</b> Recognise the ways technology is used in our classroom/community and home, and its benefits  <b>Multimedia</b> Use the keyboard or a word bank on my device to enter text ( <b>lpad/Laptop</b> ) Save information in a special place and retrieve it again	<b>Data Handling</b> Sort different kinds of information and present to others? ( <a href="#">linked to Maths</a> ) Discuss different ways in which information can be shown?  <b>Programming Skills</b> Give and follow instructions in order to move around Describe what happens when I press buttons in a robot ( <b>Beebots</b> ) Press buttons in the correct order to make my robot do what I want Describe the actions that make something happen - begin to use the word algorithm Begin to predict what will happen for a short sequence of instructions Begin to use software/apps to create movement and patterns on a screen Use the word debug when I correct mistakes when I program  <b>Technology in our Lives</b> Recognise the ways technology is used in our classroom/community and home, and its benefits Use web links to find information		
	<b>E-safety</b> Keep my password private      Tell you what personal information is      Tell an adult when I see something unexpected or worrying online      Talk about why it's important to be kind and polite Recognise an age appropriate website      Agree and follow sensible e-safety rules					



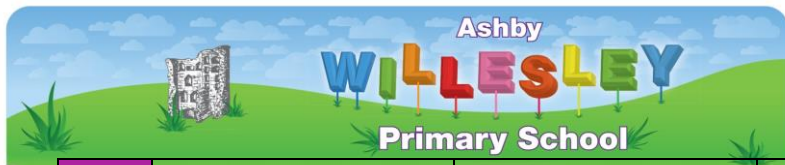
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Year 2	<p><b>Multimedia</b> Use technology to organise and present ideas in different ways Review an online tool that will help me to share ideas with other people</p>	<p><b>Technology in our Lives</b> Explain why I use technology in the classroom Explain why I use technology in my home and community Understand that other people have created the information I use Identify benefits of using technology including finding information, creating and communicating Discuss the differences between the Internet and things in the physical world</p>	<p><b>Programming Skills</b> Instruct a friend (using forward, backward and turn) and physically follow their instructions Discuss the order I need to do things to make something happen and talk about this as an algorithm Program a robot or software to do a particular task  Verbal instructions <b>Bee-Bots and Blue-Bots Spheros</b></p>	<p><b>Programming Skills</b> Review a friend's program and explain what will happen Use programming software to make objects move Observe a program execute and spot where it goes wrong so that I can debug it  Verbal instructions <b>Bee-Bots and Blue-Bots Spheros</b></p>	<p><b>Data Handling</b> Discuss the different ways technology can be used to collect information, including a camera, microscope or sound recorder Create and save a chart or graph using the data I collect Discuss the data that is shown in my chart or graph Begin to understand a branching database Explain what kind of information I could use to help me investigate a question</p>	<p><b>Multimedia</b> Use technology to organise and present ideas in different ways Use the keyboard on a device to add, delete and space text for others to read Explain about an online tool that will help me to share ideas with other people Save and open files on a device</p>
	<p><b>E-safety</b> Keep my password private      Tell you what personal information is      Tell an adult when I see something unexpected or worrying online      Talk about why it's important to be kind and polite Recognise an age appropriate website      Agree and follow sensible e-safety rules</p>					
Year 3	<p><b>Multimedia</b> <b>Word Processing</b> Use the shift, enter, backspace and arrow keys Use the bold, underline and italics features Use copy and paste to insert an image; text alignment  <b>E-safety:</b> secure passwords and why they're important</p>	<p><b>Technology in our Lives</b> <b>Internet searches and Web Browsing</b> What are search engines and how they work Use a search engine to find and use appropriate websites; online communication  <b>Data handling</b> Collect data to answer questions, add to a database, make a branching database – taught through Science unit on rocks  <b>E-safety:</b> Protect personal information online, recognise websites and games appropriate for my age, discuss benefits and risks of online communication, use safety features of websites, report concerns to an adult</p>	<p><b>Programming Skills</b> <b>Spheros</b> Program commands into a sequence to achieve a specific outcome Test programs and recognise when they need to be debugged Use repeat commands Describe algorithms needed for simple tasks Detect problems in algorithms which could result in unsuccessful programming</p>	<p><b>Multimedia</b> <b>Technology in our Lives</b> <b>Presentation skills</b> Saving images from the internet and inserting/formatting into a <b>Powerpoint</b> document Create presentations using animations Insert hyperlinks Use the spellchecker + recap of all skills taught during Autumn 1 multimedia unit).  <b>E-safety:</b> secure passwords and why they're important, asking an adult before downloading files and games from the internet</p>	<p><b>Programming Skills</b> <b>Spheros</b> Program commands into a sequence to achieve a specific outcome Testing programs and recognising when they need to be debugged Use repeat commands Describe algorithms needed for simple tasks Detect problems in algorithms which could result in unsuccessful programming  + make links with maths work on 2D shapes, length and perimeter</p>	<p><b>Multimedia</b> <b>Drawing and desktop publishing</b> Photo and photo editing <b>Book creator</b> Bring hand drawn pictures and text to life in a digital format  -link to Egyptian Cinderella  <b>E-safety:</b> making good choices about how long to spend online</p>



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<p><b>Year 4</b></p>	<p><b>Multimedia</b>  <b>Word Processing Skills -</b>            Understand the task bars on Word.            Change texts - change font and colour            Insert images/format image            Use the school network.    <b>E'Safety</b> – protect myself, being secure and making good choices.            Relevant homework set via Teams.</p>	<p><b>Programming Skills</b>  <b>Spheros</b> –            Understand efficient procedures in sequencing actions (algorithms)            Recognise errors and debug.  <b>Link to maths - measuring of length and perimeter.</b>    <b>E'Safety</b> – choose age-appropriate websites and games. Advise friends on choices            Relevant homework set via Teams.</p>	<p><b>Technology in our lives</b>  <b>Understanding copyright</b> for images online.    <b>E'Safety</b> – report concerns to a trusted adult. Using safety features of websites            Relevant homework set via Teams.  <b>E'Safety</b> Day</p>	<p><b>Multimedia</b>  <b>Powerpoint Skills</b> –            Create presentations            Use animation, photos, videos/ sound, inc a hyperlink.  <b>Link to Science and digestive system – teeth</b>  <b>E'Safety</b> - searching safely on the WWW            Relevant homework set via Teams.</p>	<p><b>Data Handling</b>  <b>Ipads and Laptops</b>            (inc introduction to Excel) – <b>Cross-curricular work to record and handle data (Maths/ Science)</b>            Relevant homework set via Teams.  <b>E'Safety</b> – consolidation of learning and understanding            Relevant homework set via Teams.</p>	<p><b>Programming Skills</b>  <b>Spheros</b>  <b>Link to maths measurement (time).</b>            Further understand sequencing and selecting actions to change within programs.    <b>E'Safety</b> – Present (using/ consolidating <b>PowerPoint</b> or <b>Word</b> skills) to another year group the learning around <b>E'Safety</b>.            Relevant homework set via Teams.</p>
<p><b>Year 5</b></p>	<p><b>Technology in our Lives and Multimedia</b>  <b>Garage Band</b>            Use text, photo and video editing tools            Use skills to create content, utilising unfamiliar technology            Combine appropriate technology tools to create effects that will impact on others            Review and improve work    <b>E Safety</b> – Following rules and creating strong passwords.            Homework on teams</p>	<p><b>Programming Skills</b>  <b>Spheros</b>            Create a program and decompose problems into smaller parts.            Design an algorithm for a specific outcome            Refine a procedure using repeat commands to improve it            Use a variable to increase programming possibilities            Change a program input to achieve a different output            Use 'if' and 'then' commands to select an action            Debug mistakes and extend programs    <b>E Safety</b> – Knowing and understanding that photos can be edited for online use. Homework on Teams</p>	<p><b>Programming Skills</b>  <b>Spheros</b>            Bridges project – <b>link to DT</b> and using spheros knowledge    <b>E Safety</b> – Identifying spam and understanding how to deal with it.            Homework on Teams</p>	<p><b>Technology in our Lives and Multimedia</b>  <b>Websites</b>            Select appropriate online or offline tools to create and share ideas            Describe webpage parts            Find out who information on webpages belongs to    <b>E Safety</b> – Understanding website citations. Homework on Teams</p>	<p><b>Technology in our Lives and Multimedia</b>  <b>Websites</b>            Ongoing – find out who information on webpages belongs to    <b>E Safety</b> – Consolidate <b>E'Safety</b> understanding – apply safety rules to real life scenarios. Homework on Teams.</p>	<p><b>Data Handling</b>  <b>Excel</b>  <b>Linked to science:</b> baby growth            Create and use a spreadsheet            Review data            Use search engines    <b>E Safety</b> – Consolidate <b>E'Safety</b> understanding – apply safety rules to real life scenarios. Homework on Teams.</p>
<p><b>Year 6</b></p>	<p><b>Data Handling</b>  <b>Excel Spreadsheets</b>            Outcome: <i>To create a range of spreadsheets recording data and use different graphs.</i>              Plan the process needed to investigate the world around me</p>	<p><b>Programming Skills</b>  <b>Spheros</b>            Outcome: <i>To control a device around a series of obstacles.</i>              Deconstruct a problem into smaller steps, recognising similarities to solutions used before</p>	<p><b>Multimedia</b>  <b>PowerPoint</b>            Outcome: <i>To create a presentation about the Stone Age.</i>              Talk about audience, atmosphere and structure when planning a particular outcome</p>	<p><b>Programming Skills</b>  <b>Scratch</b>            Outcome: <i>To create appropriate animations for a story scene.</i>              Deconstruct a problem into smaller steps, recognising similarities to solutions used before</p>	<p><b>Multimedia</b>  <b>Green Screen</b>            Outcome: <i>To create a video about a chosen topic.</i>              Confidently identify the potential of unfamiliar technology to increase my creativity?</p>	<p><b>E-Safety</b>            Outcome: <i>To look at and be aware of media perceptions and stereotypes in the media.</i>            (Digital Literacy &amp; Citizenship scheme)    <b>Technology in our Lives</b>            Select an appropriate tool to communicate and collaborate online</p>



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<p>Select the most effective tool to collect data for an investigation Check data for accuracy and plausibility Interpret data Present data I in an appropriate way Use the skills I have developed to interrogate a database</p> <p>E Safety – Identification of and dealing with cyberbullying. Homework on Teams</p>	<p>Explain and program each of the steps in my algorithm Evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm Recognise when to use a variable to achieve a required output Use a variable and operators to stop a program Use different inputs (including sensors) to control a device or onscreen action and predict what will happen Use logical reasoning to detect and correct errors in algorithms and programs</p> <p>E Safety – Online relationships. Homework on Teams.</p>	<p>Combine a range of media, recognising the contribution of each to achieve a particular outcome</p> <p><b>Thinglink</b> Outcome: <i>To create a timeline for the Stone Age period</i> using Thinglink. Explain why I select a particular online tool for a specific purpose</p> <p><b>Technology in our Lives</b> Discuss the way search results are selected and ranked. Check the reliability of a website Discuss copyright and acknowledge sources of online information</p> <p>E Safety – Homework on Teams. Visit Warning Zone Internet Safety Day and Year 6 Survey</p>	<p>Explain and program each of the steps in an algorithm Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming of that algorithm Recognise when I need to use a variable to achieve a required output Use a variable and operators to stop a program Use different inputs (including sensors) to control a device or onscreen action and predict what will happen Use logical reasoning to detect and correct errors in algorithms and programs</p> <p>E Safety – Website security. Homework on Teams.</p>	<p>Be digitally discerning when evaluating the effectiveness of my work and the work of others</p> <p>E Safety – Homework on Teams.</p>	<p>Explain the Internet services I need to use for different purposes Describe how information is transported on the Internet</p>
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