



# Usworth Colliery Primary School

## ICT Medium Term Plan - Year 4 - Spring



National Curriculum 2014 Attainment Target	Lesson Outcomes	Topic Overview	Useful Resources and Links	Links to Year Group Medium Term Planning	Completion Notes
<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p> <p>Recognise common uses of information technology beyond school (Key Stage 1 objective carried into Key Stage 2).</p> <p><u>Pupil Asset Objectives</u></p> <p>Designs and creates programs to accomplish a variety of goals.</p> <p>Debugs programs that accomplish a variety of goals.</p> <p>Uses repetition in programs</p> <p>Uses logical reasoning to detect</p>	<p>I can predict the outcome of my instructions and programs.</p> <p>I can use inputs and outputs when writing simple programs.</p> <p>I can use a loop within my programs.</p> <p>I can write programs to create animations, games and/or simulations.</p> <p>I can reformat text boxes and images to make them fit for purpose (square, tight, in front, behind) and allow overlapping and rotation.</p> <p>I can organise my files and folders by moving and renaming them.</p>	<p><b><u>Computer Programming using Flow Charts (FlowGrid)</u></b></p> <p>Enter to The Gossip – Standing in the way of Control – 1 volunteer guides another around the room using simple instructions.</p> <p>Introduce key terms – input (the instructions) and output (the movement).</p> <p><i>Key Question – What is control?</i> Explore real-world examples of control technology using the magic of control video.</p> <p>Link with the use of flow charts to show each step.</p> <p>Program the lighthouse mimic as a class.</p> <p>Explore programming the input (sun) and various outputs.</p> <p>Predict the outcome of the program using key terms (input and output).</p> <p>Higher ability to add in process symbol (in the form of a delay).</p> <p><i>Key Question – What is a loop?</i> – Link with circuits topic covered in Y3 science.</p> <p>Introduce the need for loop and how to physically create a loop with higher ability.</p> <p>Test completed programs to explore if their prediction was correct.</p> <p>Print screen completed flow charts paste into word and reformat (in front of text) and crop. Annotate identifying the input, output, delay and loop.</p> <p>Use video on the Shared Drive to plan out the sequence of a traffic light.</p>	<p>Lesson PowerPoint</p> <p>Microsoft Word</p> <p>FlowGrid</p> <p>LighthousePrediction.ppt</p> <p>The Magic of Control.wmv</p> <p>Traffic Lights Sequence - <a href="http://www.shutterstock.com/video/clip-2610602-stock-footage-uk-style-traffic-lights-the-lights-show-the-correct-sequence-plus-two-impossible-states-all-on.html">http://www.shutterstock.com/video/clip-2610602-stock-footage-uk-style-traffic-lights-the-lights-show-the-correct-sequence-plus-two-impossible-states-all-on.html</a></p> <p>Planning our Traffic Light Sequence.docx</p> <p>TrafficLight/ZebraCrossingHelpSheet.docx</p>	<p>N/A</p>	



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<p>and correct errors in programs</p> <p>Uses sequence in programs.</p> <p>Works with various forms of input and output.</p> <p>Uses and combines a variety of software to accomplish given goals and appeal to a familiar audience.</p> <p>Presents digital content in a variety of ways.</p> <p>Recognises some advantages of using ICT both inside and outside of school.</p>	<p>I can copy and paste and save pictures and text using right click (print screen).</p>	<p>Stress the need to include the number of seconds for each stage – Use to introduce delays.</p> <p>Application of understanding following lighthouse task - independently use plans to program the traffic lights mimic.</p> <p>Alternative simpler mimic (zebra crossing) available for lower ability.</p> <p>Help sheets also available with deliberate mistakes to debug.</p> <p><i>Key Question: How can we speed up the mimic?</i></p>			
<p>Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.</p> <p>Recognise common uses of information technology beyond school (Key Stage 1 objective carried into Key Stage 2).</p> <p><u>Pupil Asset Objectives</u></p> <p>Understands how computer networks can provide multiple services, such as the World Wide Web.</p>	<p>I can capture images using a variety of methods (webcams, screen capture, scanning, visualiser and the internet).</p> <p>I can create a multimedia presentation that teaches others something that I have learnt.</p> <p>I can review and delete unwanted images.</p> <p>I can use a search engine to find a</p>	<p><b><u>Exploring Google Earth (on the PC and iPad)</u></b></p> <p><b>Linked to Geography topic – Famous Landmarks/Locations (Atlas Work)</b></p> <p>Using Ranger Remote, teacher to demo of how to search using key terms, how to add pins to save a location and how to copy and paste images.</p> <p>Discussion – introduce the idea of searching for related keywords e.g. bridge.</p> <p><i>Key Question: What is longitude and latitude?</i> Discuss learning from topic lessons. Refresh/reinforce using social studies for kids website</p> <p>Using Ranger Remote, teacher to demo how to add a place mark and locate the longitude and latitude coordinates of it.</p> <p>Collect the coordinates and images of a number of famous landmarks throughout the world and record into a pre-prepared PowerPoint (Exploring with Indie and Roundhouse).</p> <p>Find the school using the postcode (introduce another way to search) and record its</p>	<p>Lesson PowerPoint</p> <p>Google Earth</p> <p>Exploring the UK with Indie.ppt</p> <p>Social Studies for kids</p> <p>-</p> <p><a href="http://www.socialstudiesforkids.com/articles/geography/latitudelongitude.htm">http://www.socialstudiesforkids.com/articles/geography/latitudelongitude.htm</a></p> <p>Exploring with Indie and Roundhouse.ppt</p>	<p>Learning Challenge 1: What are the common features you notice when locating Britain's biggest cities?</p> <p>Learning Challenge 2: Why do you think rivers were important to the location of major cities?</p> <p>Learning Challenge 3: Can you locate many of the important features on a map of a city?</p>	



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<p>Uses and combines a variety of software to accomplish given goals and appeal to a familiar audience.</p> <p>Selects, uses and combines internet services.</p> <p>Uses technology purposefully to collect, organise, sort, search and present digital content and data.</p> <p>Presents digital content in a variety of ways.</p> <p>Recognises some advantages of using ICT both inside and outside of school.</p>	<p>monument.</p>	<p>coordinates.</p>		<p>Learning Challenge 5: Can you choose a major European city and create a brochure to encourage someone to visit?</p>	
<p>Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration.</p> <p>Use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p> <p><u>Pupil Asset Objectives</u></p> <p>Presents digital content in a variety of ways.</p> <p>Uses ICT to communicate with multiple recipients.</p> <p>Identifies a range of ways to report concerns about content</p> <p>Recognises acceptable/unacceptable</p>	<p>I understand the need to keep personal information and recognise that everything I put online can be seen and used by others and cannot be deleted.</p> <p>I understand the need for caution and what to do if I find something bad.</p> <p>I understand the benefits of developing a 'nickname' for online use.</p>	<p><b><u>Aspirations Week Blog/E-Safety</u></b></p> <p><i>Key Question: What would you do if you found something you weren't comfortable with online?</i> Refresh understanding of previous E-Safety Topic</p> <p><i>Key Question: What is a blog?</i> Revisit discussion from Autumn Outdoor Learning Week.</p> <p>Lead discussion onto the need to be careful what we share – include the use of nicknames.</p> <p>Discuss how communication differs in school from at home.</p> <p>Watch Jigsaw video (CEOP) to reiterate the need to keep details private – <i>Key Question: What kind of things did she share?</i></p> <p>Write a blog about what happened in Aspirations Week.</p> <p>Add a signature using a nickname.</p>	<p>Lesson PowerPoint</p> <p>UCPS Primary Blogger Account</p> <p>Microsoft Word</p> <p>Jigsaw.wmv</p>	<p>PSHE: Staying Safe</p>	



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<p>behaviour and share tips and advice in order to stay safe.</p> <p>Recognises some advantages of using ICT both inside and outside of school.</p>	<p>I can contribute to a class blog.</p>				
<p>Create a strong password and understand who I must and mustn't share it with.</p> <p>Understand the need for rules to keep me safe when using technology.</p> <p>Understand the need to keep personal information secret.</p> <p><u>Pupil Asset Objectives</u></p> <p>Recognises some advantages of using ICT both inside and outside of school. (IT4.3d)</p>	<p>I can create a strong password and understand who I must and mustn't share it with.</p> <p>I understand the need for rules to keep me safe when using technology of when online and can follow my own and the school's rules.</p> <p>I understand the need to keep personal information and recognise that everything I put online can be seen and used by others and cannot be deleted.</p>	<p><b><u>Creating a Strong Password</u></b></p> <p>Watch clip of Jimmy Kimmel Live.</p> <p><i>Key Question: What makes a good password?</i> Discuss what makes a good password and mind map on the whiteboard.</p> <p>Discuss who we should share our password with, why it is important to keep it safe.</p> <p>For higher ability and upper key stage 2 link with E-Threats. Key terms– Hacking, Spyware, Key Stroke Loggers, Fraud.</p> <p>Linked to use of school email – discuss good practice when using email/e-communication.</p>	<p>Office360 email addresses</p> <p>Lesson PowerPoint</p> <p>Microsoft PowerPoint</p> <p><a href="https://www.youtube.com/watch?v=opRMrEfAlil">https://www.youtube.com/watch?v=opRMrEfAlil</a></p>	<p>N/A</p>	