

Computer Science	Year 5 Learning Expectations	Resources/ Activity Ideas
<ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems;</li> <li>solve problems by decomposing them into smaller parts</li> <li>use sequence, selection, and repetition in programs;</li> <li>work with variables and various forms of input and output</li> <li>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li> </ul> <p>understand <b>computer networks including the internet</b>; how they can provide multiple services, such as the world wide web</p>	<ul style="list-style-type: none"> <li>Able to independently deconstruct code to predict their action and errors. Fix the errors.</li> <li>Use IF code to alter rotation of an object.</li> <li>Begin to change the position of an object considering the look it gives their programme.</li> <li>Combine pen and movement to add interesting effects.</li> <li>Use broadcasted text to trigger different events.</li> <li>Use IF, THEN, ELSE conditions to control events.</li> <li>Use a range of sensing tools ( proximity /mouse position) to control events.</li> <li>Use a list to create a set of variables.</li> </ul> <p>Be able to use the following:-  () &lt; ()  () = ()  () &gt; ()  () and ()  () or ()  Not ()</p> <ul style="list-style-type: none"> <li>Can understand how data routing works on the internet.</li> </ul>	<p>Oct 8<sup>th</sup>- Jan 28<sup>th</sup> Maze/Angle pattern project ( UCL maths) or equivalent to cover objectives</p> <p>In 5.4 and 5.5, (understand how web pages are routed on the internet.)</p> <p>Understand how web pages are routed on the internet. Cover in web page project</p>

Multimedia and Data Handling	Year 5 Expectations	Resources/Suggested Activity Ideas
<ul style="list-style-type: none"> <li>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> <li>Select, use and combine a variety of software (including internet services) on a range of digital devices to Design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</li> </ul>	<ul style="list-style-type: none"> <li>Can use and combine a range of programs on multiple devices.</li> <li>Can independently select, use and combine a variety of software to accomplish given goals, including collecting, presenting data and information.</li> <li>Able to design and create programs on a computer in response to a given goal.</li> <li>Can analyse and evaluate information. Select appropriate applications to devise, construct and manipulate data. Carry out searches using &lt;/&gt;. Solve problems and answers using data tools.</li> <li>The child can use filters to make more effective use of a standard search engine.</li> <li>Can understand that search engines use a cached copy of the crawled web to select and rank results.</li> <li>Able to talk about different elements on a web page.</li> </ul>	<p><b>5.6 We Are Architects</b> ( Use pictures from art books- Tudors/Puppets/Space use in Sketch Up ) May 20<sup>th</sup> – July 8<sup>th</sup> Potentially use a Thursday am session for pupils to take pictures from art book and download into files.</p> <p><b>5.4 We Are Web Developers</b> 4<sup>th</sup> Feb- March 25<sup>th</sup> How We Search , 2Publish Plus: Blank Web Page ( Cyber Safety- to include objectives of digital literacy )  <a href="http://www.purplemash.com/#pup/howwesearch">www.purplemash.com/#pup/howwesearch</a></p> <ul style="list-style-type: none"> <li>Explore how to search effectively online using this writing template <a href="http://www.purplemash.com/#app/pup/Blank_webpage">www.purplemash.com/#app/pup/Blank_webpage</a></li> </ul> <p>Design your webpage using this template (you can also print and use offline)  <b>In 5.4 and 5.5</b>, combine local media, including that captured using portable technology, with a web-based content management system. In 5.6, use digital photographs and other media in a virtual art gallery  <b>Any Purple Mash use of 'Tools' will cover this.</b></p> <p><b>In 5.1</b>, design and create a computer game in response to a given brief. <b>In 5.3</b>, design and create a geometric pattern using turtle graphics in response to a given brief or UCL Scratch maths</p> <p><b>In 5.4</b>, evaluate the quality of the information on which they are drawing. Analyse this to provide a clear and coherent summary on their own page.)  <b>Science/Maths- graphs and charts?</b></p> <p><b>5.4 We Are Web Developers</b></p> <p><b>5.4 We Are Web Developers</b></p>

(Understand that Google uses a cached copy of the crawlable web to generate search results, using the links between the pages in the cache to determine the rank order in which results are displayed.)

Digital Literacy	Year 5 Objectives	Resources/ Suggested Activity Ideas
<p>Use technology safely, respectfully and responsibly; recognise acceptable /unacceptable behaviour; Identify a range of ways to report concerns about content and contact.</p> <p>Understand the opportunities networks offer for communication and collaboration.</p> <p>Be discerning in evaluating digital content.</p>	<ul style="list-style-type: none"> <li>• To understand the importance of keeping personal information safe. ( chapter 3 Smartcrew)</li> <li>• The child can demonstrate that they can act responsibly when using the internet. ( Band Runner)</li> <li>• Understand use of strong passwords to protect identity online.</li> <li>• Able to discuss the consequences of behaviours when using digital technology. ( Band Runner)</li> <li>• Know how to report concerns and inappropriate behaviour in a range of contexts. ( Band Runner and (chapter4 Smartcrew)</li> <li>•Able to decide whether digital content is reliable and unbiased.</li> <li>• Choose appropriate tools for communication and collaboration (blogging)</li> </ul>	<p>Teachers - <a href="https://www.thinkuknow.co.uk/">https://www.thinkuknow.co.uk/</a> See ages 8-10 for resources + video ( This covers posted pictures and private information)</p> <p>AG to cover with SMARTCREW Video Autumn term with additional quiz. Pupils to then use this info to create a comic strip 10<sup>th</sup> Sept- 1<sup>st</sup> Oct 4 sessions</p> <p>Unit 5.2 Purple Mash</p> <p><a href="https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/watch-full-movie">https://www.childnet.com/resources/the-adventures-of-kara-winston-and-the-smart-crew/watch-full-movie</a></p> <p><a href="https://www.purplemash.com/#app/pup/Blank_comicbook">https://www.purplemash.com/#app/pup/Blank_comicbook</a></p> <p>Units 5.4 and 5.5, act responsibly when creating, editing or commenting on pages or blog posts.</p> <p><a href="https://howsecureismypassword.net/">https://howsecureismypassword.net/</a> ( cover in We Are Web Developers)</p> <p>Poor passwords, length of time on devices, politeness etc</p> <p>Trusted adult, parent, teacher. Report by discussion with trusted adult, report inappropriate behaviour to those running websites which they regularly use, and to ChildLine, CEOP or to the police. AG to cover in comic strip activity.</p> <p>Teachers see Purple Mash Internet Safety Quiz . Teachers to recap knowledge - Safer Internet Day Tuesday February 5<sup>th</sup> + summer term – use topic as class assembly for parents?</p> <p><a href="http://www.bbc.co.uk/schools/gcsebitesize/dida/using_ict/webresearch_rev7.shtml">http://www.bbc.co.uk/schools/gcsebitesize/dida/using_ict/webresearch_rev7.shtml</a> With AG before create website.</p> <p>Cover in 5.4 and 5.5 (such as a web page, other children's pages or blog posts) is reliable and whether it has been written from a neutral point of view. They should be able to spot some examples of bias in digital content.</p>

Covered in 5.4 We Are Web Developers and 5.5 Unit We Are Bloggers

Purple Mash March 25<sup>th</sup>- 13<sup>th</sup> May 6 weeks (linked to topic in class so that pupils can continue blog in class using iPads)

[www.purplemash.com/#app/jsapps/write](http://www.purplemash.com/#app/jsapps/write)

[www.purplemash.com/#app/tools/2Connect](http://www.purplemash.com/#app/tools/2Connect)

- Use the collaborative functionality of 2 write and/or 2Connect to brainstorm and share ideas to plan your blog

[www.purplemash.com/#app/link/2blog](http://www.purplemash.com/#app/link/2blog)

- Teachers create a class blog, decide who can see, post or comment
- Pupils can create individual blogs that are private
- Share your blog with other classes and/or friends/family • Create a blog post, add images, comment on posts • How to use 2Blog:

[https://www.purplemash.com/#app/guides/2Blog\\_pdf\\_Guide](https://www.purplemash.com/#app/guides/2Blog_pdf_Guide)

The blog can be on any topic. Blog of a Tudor- what it is like living in these times?