

Penbridge School Computing Curriculum



Unit: Search

NC Link:

(KS1) Use technology purposefully to retrieve digital content

(KS2) Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Search Tools

Every word matters. Generally, all the words you put in the query will be used. Search is always case insensitive. A search for [new york times] is the same as a search for [New York Times].

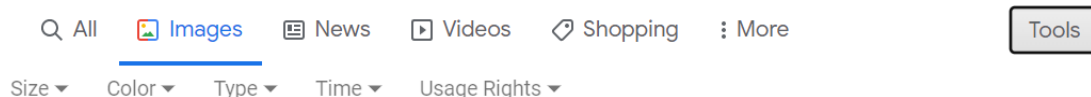
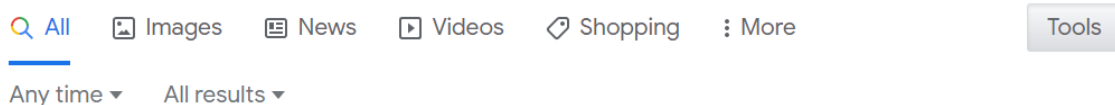
Generally, punctuation is ignored, including @\$%^&*()=+[]\ and other special characters.

Keep it simple. If you're looking for a particular company, just enter its name, or as much of its name as you can recall. If you're looking for a particular concept, place, or product, start with its name. If you're looking for a pizza restaurant, just enter pizza and the name of your town or your zip code. Most queries do not require advanced operators or unusual syntax. Simple is good.

Think how the page you are looking for will be written. A search engine is not a human, it is a program that matches the words you give to pages on the web. Use the words that are most likely to appear on the page. For example, instead of saying [my head hurts], say [headache], because that's the term a medical page will use.

The more unique the word is the more likely you are to get relevant results. Words that are not very descriptive, like 'document,' 'website,' 'company,' or 'info,' are usually not needed. Keep in mind, however, that even if the word has the correct meaning but it is not the one most people use, it may not match the pages you need. For example, [celebrity ringtones] is more descriptive and specific than [celebrity sounds].

Google Tools



Tips for better searches

Phrase search ("")

By putting double quotes around a set of words, you are telling Google to consider the exact words in that exact order without any change. Google already uses the order and the fact that the words are together as a very strong signal and will stray from it only for a good reason, so quotes are usually unnecessary. By insisting on phrase search you might be missing good results accidentally. For example, a search for ["Alexander Bell"] (with quotes) will miss the pages that refer to Alexander G. Bell.

Search within a specific website (site:)

Google allows you to specify that your search results must come from a given website. For example, the query [football site:skysports.com] will return pages about Football but only from skysports.com.

Terms you want to exclude (-)

Attaching a minus sign immediately before a word indicates that you do not want pages that contain this word to appear in your results. The minus sign should appear immediately before the word and should be preceded with a space. You can exclude as many words as you want by using the - sign in front of all of them, for example [jaguar -cars].

Fill in the blanks (*)

The *, or wildcard, is a little-known feature that can be very powerful. If you include * within a query, it tells Google to try to treat the star as a placeholder for any unknown term(s) and then find the best matches. For example, the search [Google *] will give you results about many of Google's products (go to next page and next page -- we have many products). The query [Obama voted * on the * bill] will give you stories about different votes on different bills. Note that the * operator works only on whole words, not parts of words.

Search exactly as is (+)

Sometimes Google helps out a little too much and gives you a results you don't really want. Adding a + immediately before a word (remember, don't add a space after the +), you are telling Google to match that word precisely as you typed it. Putting double quotes around a single word will do the same thing.

- The OR operator

Google's default behaviour is to consider all the words in a search. If you want to specifically allow *either* one of several words, you can use the OR operator (note that you have to type 'OR' in CAPS). For example, [San Francisco Giants 2004 OR 2005] will give you results about either one of these years.

Success Criteria Progression:

Year 1	N/A
Year 2	Children will be able to search for and save images
Year 3	Children will be able to explain the difference between a website, a browser and a search engine. Children will be able to list different search engines. Children will be able to type in accurate searches into a search engine. Children will be able to explain why it is important to be accurate when using search engines.
Year 4	Children will be able to refine their searches. Children will be able to explain how search engines select and rank their results. Children will be able to find the answer to a question using a webpage.
Year 5	Children will be able to explain why some results aren't accurate or trustworthy. Children will be able to use advanced search tools to refine their searches. Children will be able to pick out key information from a web page.
Year 6	Children will be able to independently choose when to use a search engine during research. Children will be able to independently choose to use search tools and filters. Children should be aware that not all questions can be answered using search engines. They should be able to give examples of 'ungoogleable' questions. Children will be able to use multiple websites to ensure accuracy.

Year 2

Lesson 1	Lesson 2
<u>LO: To search for images.</u>	<u>LO: To save an image from google.</u>

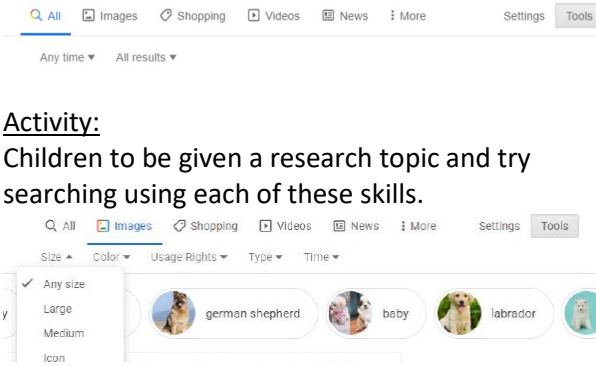
Year 3

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5																				
<p><u>L.O: To show how to use websites</u></p> <p><u>Starter:</u> How do you research things? If you were told to find out facts about XXXX, what would you do?</p> <p>KS1 retrieval – what makes the internet amazing?</p> <p><u>Input:</u> Put key words on the board. Prediction key: what do they mean? (bookmark, favourite, reload, tab, new tab, home page, downloads, history, web address) Children to label a web page to explain the different features as you teach them about each part.</p> <p><u>Activity:</u> Children to research a topic and use this time to learn about how to use a website.</p> <ol style="list-style-type: none"> Show children how to go back and forwards between web pages –ch have a go Show children how to reload a web page –ch try Show children how to bookmark/favourite page –ch to choose a webpage that links to the topic to bookmark. <p><u>Less Able:</u></p> <p><u>More Able:</u></p> <p><u>Plenary:</u> Blue hat -Why is bookmarking and favouriting a page useful?</p>	<p><u>L.O: To describe the difference between a website, a browser and a search engine.</u></p> <p><u>Starter:</u> Prediction key: What is the difference between a website, a browser and a search engine?</p> <p>KS1 retrieval – what could make the internet unsafe?</p> <p><u>Input:</u> Introduce the three things. Create a tree map with names of websites, browsers and search engines the children can think of. Discuss why each one is useful. Add other examples – discuss if they’ve heard of it before. Fill in table as a class as an example.</p> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th></th> <th>Website</th> <th>Web Browser</th> <th>Search Engine</th> </tr> </thead> <tbody> <tr> <td></td> <td>YouTube™</td> <td>Mozilla Firefox® Browser</td> <td>Google™ Search Engine</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><u>Activity:</u> Match the definitions and then fill in table.</p> <p><u>Less Able:</u></p> <p><u>More Able:</u> Can you use more than one web browser or search engine?</p>		Website	Web Browser	Search Engine		YouTube™	Mozilla Firefox® Browser	Google™ Search Engine	1				2				3				<p><u>L.O: To use different search engine.</u></p> <p><u>Starter:</u> Complete Forms quiz on the difference between a website, a browser and a search engine.</p> <p>KS1 retrieval – what</p> <p><u>Input:</u> Re-cap what a search engine is. How many different search engines can you think of?</p> <p><u>Activity:</u> Children to work in groups to use different search engines to research.</p> <p><u>Less Able/More Able: Mixed ability teams</u></p> <p><u>Plenary:</u> Complete search engine reflection</p>	<p><u>L.O: To recognise accurate searches to complete research.</u></p> <p><u>Starter:</u> What is a search engine? How many search engines can you name?</p> <p><u>Input:</u> Re-cap website skills from last time. Show children a research project –what should I type into google to help me? Demonstrate typing in vague and inaccurate searches. Look at different searches used to find the answer to a question and discuss if it is an accurate search.</p> <p>Create steps to success for accurate searches.</p> <p><u>Activity:</u> Children to sort searches onto a continuum line from accurate to vague.</p> <p><u>Less Able:</u> Guided group or mixed grouping <u>More Able:</u> Give scenarios of searches and children discuss if they would be effective and how to improve it.</p> <p><u>Plenary:</u> Why is it important to type accurate searches?</p>	<p><u>L.O: To use accurate searches to complete research.</u></p> <p><u>Starter:</u> How can you make sure your searches are accurate?</p> <p><u>Input:</u> Re-cap steps to success.</p> <p><u>Input:</u> Discuss why using accurate searches is important? How does it help us?</p> <p>Class game: Give class a research question. Children to work in teams to come up with what they would search to answer this question. Best response earns a point. Repeat.</p> <p><u>Activity:</u> Children to complete research using the skills. Record what they searched into google and why they chose that. Then, answer the research questions.</p> <p><u>Less Able:</u> Give options for searches and children choose the one they think is most accurate. <u>More Able:</u> Differentiate research activity <u>Plenary:</u> 2 glows and a grow for the accuracy of your searches today.</p>
	Website	Web Browser	Search Engine																					
	YouTube™	Mozilla Firefox® Browser	Google™ Search Engine																					
1																								
2																								
3																								

Plenary: Go back to your prediction key from the starter and re-answer the question.

Laptops/iPads
















Year 4

Lesson 1	Lesson 2	Lesson 3
<p><u>L.O:</u> To explain how search engines rank their results.</p> <p><u>Starter:</u> What is a search engine? Why are accurate searches important?</p> <p><u>Input:</u> https://www.youtube.com/watch?v=BNHR6IQJGZs</p> <p>Model searching, using 2 –3 words, and show what pages come up. State how in the short blurb under each result there has words in bold. These are the words used to search.</p> <p>Model answering the following questions:</p> <ol style="list-style-type: none">1. How many times does the page contain your words?2. Do the words appear in the title, address (URL) or directly next to each other?3. Are the words in a quality website, or a low quality website?4. What is the page’s PageRank (model clicking on page rank button so children understand how to find this score)? <p><u>Activity:</u> Children make searches using 2 –3 key words. Use the differentiated Order of Returned Results Activity Sheets (Twinkl),</p> <p><u>Less Able:</u></p>	<p><u>L.O:</u> To use refine searches on the internet.</p> <p><u>Starter:</u> How are results ranked on a search engine? What are the reasons Google ranks its results?</p> <p><u>Input:</u> What do you think is important when we search for something on google? How can we make sure our searches are accurate? Show children how to move between images, news, all etc. Discuss why this might be useful. Then show children how to change time of results –why might this be useful.</p>  <p><u>Activity:</u> Children to be given a research topic and try searching using each of these skills.</p> <p><u>Less Able:</u></p> <p><u>More Able:</u> Look and use the different refining tools on google images.</p> <p><u>Plenary:</u> Why can refining your search be useful?</p>	<p><u>L.O:</u> To find the answer to a question using a webpage.</p> <p><u>Starter:</u> Give children the table from last lesson and get them to fill it in from memory.</p> <p><u>Input:</u> Model to children using google to answer a questions. Discuss skimming and scanning a webpage. Show children how to use the find tool on a webpage to help them.</p> <p><u>Activity:</u> Children to work in pairs or independently to use webpages to answer a set of questions linked to their topic.</p> <p><u>Less Able:</u> Multiple Choice questions. Answers from just one website.</p> <p><u>More Able:</u> Can their information be verified from another source?</p> <p><u>Plenary:</u> Share answers with class –did you all find the same thing? What did you find easy about the research? What did you find difficult?</p>

More Able: Challenge them to find a page with a page rank of 6. What page did you reach before you found this? How about a page rank of 3?

Plenary: White hat –what have you learnt about how search engines rank their results.

Year 5

Lesson 1	Lesson 2	Lesson 3																												
<p><u>LO: To use refine searches on the internet.</u></p> <p><u>Starter:</u> What is a search engine? What top tips/search tools for refining searches can you remember from year 4?</p> <p><u>Input:</u> What do you think is important when we search for something on google? How can we make sure our searches are accurate? Go through the searching online section of this website as a class to look at different ways to improve searches. https://www.w2tw.uk/ Fill in this grid as a class as you go. (available on the website)</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <small>2) Describe each searching tip in the spaces below.</small> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 100px;"></td> <td style="width: 100px;"></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table> </div> <p><u>Activity:</u> Children to be given a research topic and try searching using each of these skills.</p> <p><u>Less Able:</u></p> <p><u>Most Able:</u></p> <p><u>Plenary:</u> Which searching tip did you find most useful? Why?</p>											<p><u>LO: To pick out key information.</u></p> <p><u>Starter:</u> Model picking out key information from a website and how to take notes.</p> <p><u>Input:</u> Model picking out key information from a website and how to take notes.</p> <p><u>Activity:</u> Children to have a website linked to their topic. Give them 10/15 minutes to make notes of the key information. Compare notes with a partner – Did you pick out the same information? Did you write down any information that isn't actual important? What did you find hard? What could you do better next time? Give children a different website to repeat the activity. Teacher to also complete activity. Compare results as a class – was everyone only picking out key information?</p> <p><u>Less Able:</u></p> <p><u>Most Able:</u></p> <p><u>Plenary:</u> Thinking hat analysis linked to picking out key information.</p>	<p><u>LO: To explain if a website is accurate and reliable.</u></p> <p><u>Starter:</u> How can we check if a website is accurate and reliable?</p> <p><u>Input:</u> https://www.bbc.co.uk/bitesize/clips/zw8mtfr Get children to work in pairs to use this website to create top tips for evaluating a website. https://www.bbc.co.uk/bitesize/topics/zd92fg8/articles/zt9thvc</p> <p><u>Activity:</u> Children to complete research based on their topic – for each website they use they must rate its reliability and explain their reasoning. This could be done by using their top tips and recording the information.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%;">Website:</th> <th style="width: 35%;">Website:</th> </tr> </thead> <tbody> <tr> <td>Publication date</td> <td>2011</td> <td></td> </tr> <tr> <td>Check the domain name</td> <td>.gov</td> <td></td> </tr> <tr> <td>Use a top link</td> <td>3rd link down</td> <td></td> </tr> <tr> <td>Check whether the author might be biased</td> <td>Government author – used lots of research in document so probable less bias</td> <td></td> </tr> <tr> <td>OVERALL RATING</td> <td>4/5</td> <td></td> </tr> </tbody> </table> <p><u>Less Able:</u></p>		Website:	Website:	Publication date	2011		Check the domain name	.gov		Use a top link	3 rd link down		Check whether the author might be biased	Government author – used lots of research in document so probable less bias		OVERALL RATING	4/5	
																														
																														
																														
																														
																														
	Website:	Website:																												
Publication date	2011																													
Check the domain name	.gov																													
Use a top link	3 rd link down																													
Check whether the author might be biased	Government author – used lots of research in document so probable less bias																													
OVERALL RATING	4/5																													

		<p><u>Most Able:</u></p> <p><u>Plenary:</u> Thinking hat analysis linked to picking out key information.</p>
--	--	--

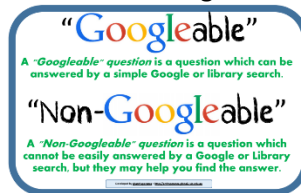
Year 6

Lesson 1	Lesson 2	Lesson 3
-----------------	-----------------	-----------------

L.O: To recognise questions that cannot be easily answered by Google.

Starter: What can you remember about search engines and search tools?
Class circle map – discuss different search tools and recap the different ways to refine your searches

Input: When do we use Google? Why do we use google? What have you typed into google recently?
Class debate: Can google answer all questions? Get children to try and include examples to back up their ideas.
Introduce the difference between Googleable and Non-Googleable.



Activity: Children to work in pairs to generate questions and sort them into the two categories.
Are all of the questions easy to sort? Is there a pattern on types of questions that cant be googled?

Less Able/More Able: Mixed ability pairings

Plenary: What makes a question non-googleable?

L.O: To use sources to recognise accurate information.

Starter: Why might a question be non-googable?

Input: What is reliable information? How can you check that your information is reliable?

Talk about using multiple websites and sources to determine whether information is accurate or if it could be fake news.

Activity: Children to check the headlines with other websites (sources) before deciding whether it is true or fake. If they think it is true then they must prove it with two different links to reliable websites.

Less Able: Give different sources they can use to prove/disprove headlines. Work as a group.

More Able: Evaluate the reliability of the website s you are using to prove your headline.

Plenary: Check your partner's responses. Do you agree with them? Could a different answer be accurate?

L.O: To independently use search tools on a search engine.

Starter: As a class go through all the different search and refine tools and top tips for using google.

Input: Write a steps to success for successful and accurate research.

Activity: Children to work in pairs or groups to complete research based on a given topic.
Children must record the websites they use and any search tools they use

CH:

Less Able:

Plenary: Why was your research successful? Are there any things you would change about your searches next time?