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USING GOOGLE™

and Google™ Tools in the Classroom

Grades 5 & Up

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Search Tools by Google

To search or to browse; that's the question! With the Web so easy to navigate and filled with more than just static text, people everywhere spend an amazing part of their days clicking from one Web address to the next. But is that an efficient way to find what you are looking for? If you answered "probably not," you were correct. Most users, including educators, have their favorite websites saved to their browsers, and rely mostly on their content. Over time, websites disappear or new curriculum content must be found and this is when educators realize that they need to learn effective search techniques.

The first step in learning to search is knowing the difference between browsing and searching. Browsing is useful if you are familiar with a topic and want to see what other topics might be related or of interest to yours. For this, a subject directory is a good place to start. A subject directory is an organized and usually annotated list of links placed together in a thematic or subject specific manner. An analogy to a subject directory is that it is like a library; purposefully organized by people for easy location of materials. Librarians organize the books so that you can walk to a subject and find a book easily and browse around looking for others on the same topic. In this way, Google's Directory is similar as the links there are selected and organized by people. A directory helps you narrow down your search from a broad topic.

Educators rely on Kathy Schrock's Guide for Educators (<http://school.discoveryeducation.com/schrockguide>) as the most popular researched and evaluated educational directory on the Web. Teachers with minimal time available to them should look here first to see if Kathy has already included sources on their chosen topic.

A Google Account and a Gmail webmail service account are not required to use Google's Directory.

Windows and Macintosh users will need:

- Internet access and the use of a web browser (such as *Internet Explorer* or *Firefox*)

Browsing the Directory

Google search term:

Google Directory [or point your browser to <http://directory.google.com>]

Google Directory Help:

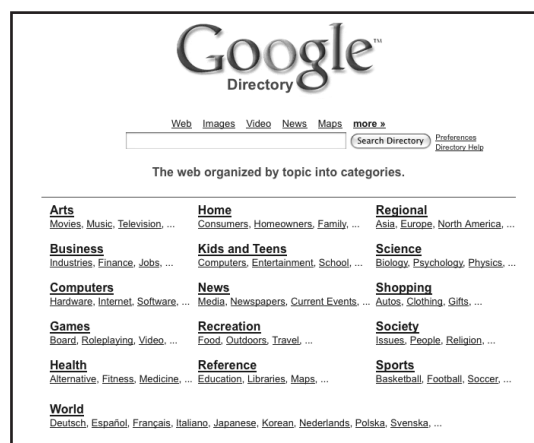
<http://www.google.com/dirhelp.html>

Google Guide: Directory: Category of Topics

<http://www.googleguide.com/directory.html>

Search Tools by Google (cont.)

Examining the webpage for Google Directory™ web directory, you will see a search box where you can enter keywords and then click the “Search Directory” button. Notice that this button reads “Search Directory” as opposed to the button on Google’s main page that reads “Search.” It must be emphasized here that Google Directory™ web directory ONLY searches the directory and not the whole Web. Underneath the search box, there is a list of categories of topics and underneath that there are subheadings. The subheadings are there to help you locate a more specific topic within that category.



Practice by choosing a category such as “Reference.” When you click on it, the page displays all the topics. In alphabetical order, these subcategories are shown with a number in parentheses. For example, click on “Books” and then “E-Books” to see categories of books in electronic format. From there, clicking on “Titles” will bring up more categories of e-books. This process is time-consuming but it does show you the subdivision of materials in the electronic book topics. You may have thought that e-books were something you read on a handheld device but didn’t know that many websites contain selected chapters, excerpts, or whole books as an online reading experience.

The Google Directory™ web directory Help page offers more information on how to use the directory. On that page is an explanation of the category “World.” This special category in Google Directory™ web directory brings you to directory content in languages other than English. This is useful for teachers of foreign languages and for locating webpages that have been written in another language (not ones translated by the Google™ Language Tools).

Working with Students

Experts agree that students under grade five should only be working with websites that have been specifically identified and evaluated by their teachers. They should not search the Web alone. After this age, student searching techniques should be taught with examples, and results discussed in class. Student evaluation of content of websites should begin as soon as the search techniques lessons are complete. Searching and evaluating are linked without question whether by students or by adults. Teachers need to be skilled in both areas and be knowledgeable about their school district’s acceptable use (AUP) policies.

SafeSearch

Google offers a “safe search” feature on its preferences page. For filtering out sexual content, there are two choices available—“strict” and “moderate.” “Strict” offers the most control as it filters both text and images while “moderate” filters images only. Click on the link “Preferences” and look for “SafeSearch Filtering.” No filtering tool is 100% accurate.

Search Tools by Google *(cont.)*

Searching the Web

Google offers two distinctly different pages for general searching of the vast resources of the Web: “Basic Search” and “Advanced Search.” As you learn more about search techniques, you will find yourself using the advanced page more and more as it offers a fast and comprehensive way to find what you are seeking. Taking the time to learn this is essential for all educators and their students. But since many users don’t know that the Advanced Search page exists, it is important to look at the Basic Search page first as a place to start thinking about keywords and search terms. To do that you need to know a little bit more about why searching and browsing are different.

Spiders, Crawlers, and Bots

Human beings (that’s you!) place the links in the subject directory like Google Directory™ web directory, but they do not place or organize the links that you see when you are using a search engine. Instead, humans write a special mathematical algorithm (or set of rules) that is sent out to the Web to find and bring back information to be stored in the servers at Google. Because this process is ongoing, results can differ each time you enter a search at Google Web Search™ features. This process of entering keywords and terms is called a *query* (like a question). To understand more about this, take a look at the picture on the following webpage.

How Does a Search Engine Work?

http://www.midgefrazel.net/search_slide.htm

Keywords and Search Terms

All searches must begin with thinking about the words that you type into the search box. A single word or group of words typed in will result in “hits,” which are the results you see in the listing. Just like asking the right questions to find out information from another human being, your search results will be better if you think beforehand about what information you expect to find. Search engine queries have been getting better and easier over the years but, like your third grade teacher informed you, “Spelling counts!” as many words in the English language have different spellings for different meanings.

Also, important to know is that Google’s results are not case-sensitive so you never need to bother to capitalize any words. But if you do, that’s okay as the results will not be different. It will be harder for students to “unlearn” noncapitalization if they don’t use capitalization rules every day.

Brainstorming for appropriate keywords and search terms with students is important as they will almost always tell you that the first result at the top of the page is the one you want. They have probably investigated the “I’m Feeling Lucky” link and decided that they have spent enough time searching and this one result will satisfy their quest for answers to their homework assignment. Many times this top link will lead students to Wikipedia, the online encyclopedia which is created completely by users and may not contain correct information as it is not like a print encyclopedia in which the content is edited by experts. Don’t believe everything you read on the Web!

Search Tools by Google (cont.)

To learn more about keywords, read the information at this website:

The Spider's Apprentice
<http://www.monash.com/spidap.html>



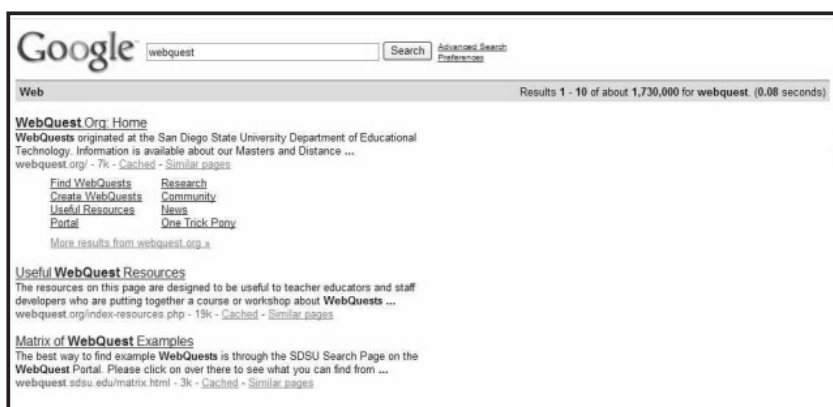
Google™ Basic Search

Google's Basic Search page is uncluttered and simple to use. It contains a search box where you can type in a word or few words before you click the Google Search Button or press the Enter or the Return key on your keyboard.

Google search term:

Google [or point your browser to <http://www.google.com>]

Let's imagine you have seen or read something about WebQuests, which are a popular critical-thinking Web based project created by teachers for students, but you don't know how to find out more about them. Using Google's Basic Search page, type the keyword "webquest" into the search box and click the Google Search button.



Examine the results. The information bar just above the hits tells us that Google has found over a million webpages that contain the single word "webquest" and is displaying them ten links at a time. It would take quite a while to go through these results. In this case, the first result is the one you would want to use to begin learning about this valuable classroom project. Google results give you valuable information about the "hit" even before you click on the link to move to that webpage.

Below the "hit" link, is a partial description of the webpage, usually written by the person who authored this particular webpage. This information is followed by another line with the web address (in this case webquest.org), the size of the page, and a link to the cached page and pages similar to the one you have located. A cached page is a "snapshot in time" of that page. This is useful if there is a problem with that page at the given moment you would like to view it, as perhaps the server holding that page is down for repair. You can at least examine the cached page to see if you need to return to it later. The Similar Pages link produces a list of pages that you may find of interest, mainly ones that have the same keyword.

Search Tools by Google *(cont.)*

Google™ Basic Search *(cont.)*

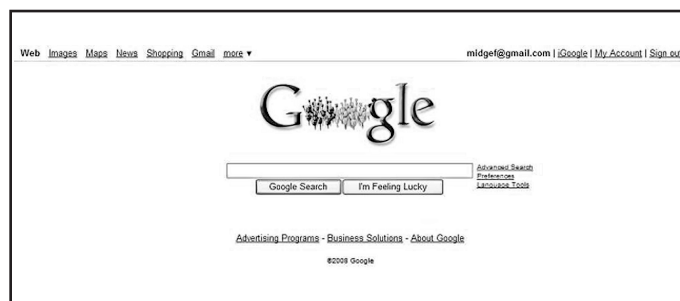
You may notice that several hit pages include sponsored links, which are paid advertising offered by Google's Ad Words business side. People pay for Google to post these links at the top or the side of the hit results. This is one way that Google gets paid for providing their search services and applications for free.

Google's Basic Search Help
<http://www.google.com/help/basics.html>

Sometimes Google's Basic Search page will look a bit different. Google's official artist, Dennis Hwang, designs special Google Logos for different occasions, and the people at Google set a link for that particular event (usually a day) with a keyword or set of keywords. The logos for these events have been archived from 1999 to the present.

It's Spring!

People are naturally curious about this interesting feature of Google Search and the people at Google have a webpage or two set aside to display these creations. Recently, Google held a design contest for students in schools in the United States so they could join the creative fun in designing their own Google Logos. Even if the contest is over, you can access the information and lessons offered by the education staff for this event.



Google Holiday Logos
<http://www.google.com/holidaylogos.html>

Google Fan Logos (created by other artists)
<http://www.google.com/customlogos.html>

Doodle 4 Google
<http://www.google.com/doodle4google/>

