

# Google Search Engine

## What is Google?

Google is a program used to **search and surf the Internet/WWW**. The **Internet** is a loose term for all the local and wide-area networks that connect together via the Internet. The **WWW (World Wide Web)** is text and graphic pages designed to look good on the Internet.

Here is what Google's "home page" looks like most days of the year:



## What's with the funny name?

Google is found at **www.Google.com**:

- ✱ **www** tells us that it is a pretty page designed for the Web. Two young Stanford mathematicians created the Google search algorithm in 1997 and put it on the Web. Google has made them wealthy and will "go public" this year.
- ✱ **Google** is a play on words for the math term, "googol", which means  $1 \times 10$  to the 100th power, or 1 with 100 zeros after it. This giant number suggests the volume of information Google indexes.
- ✱ **.com** tells us that Google is a "for-profit" company, but it doesn't cost users anything, just advertisers.

## Why go there?

Google is the **most widely used** search engine in the world, and is the fourth most-often-used website.

The world's **most comprehensive** search engine, it indexes over 2.4 billion Web pages.

Best of all, Google ranks your search results from most-often-linked to by other websites to least-often. Your first page or two of results should be the most useful to you.

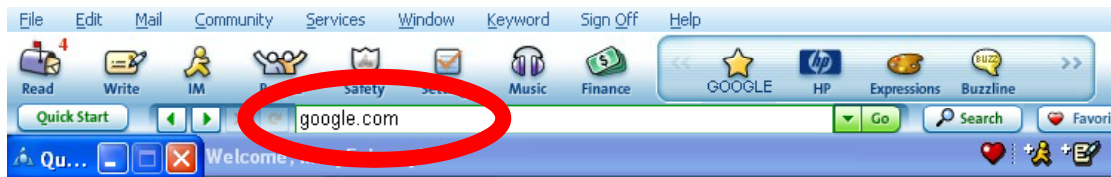
It also lets you search the Web for "Images" (pictures) you might want, "Groups" of people interested in the same information you are, "News" always up to the minute, "Froogle" for frugal shopping, and some other useful search areas.

## Okay, I'm convinced. How do I get to Google?

You can go to Google's home page by entering any one of the following web addresses into your web browser or into your Internet Service Provider's home page:

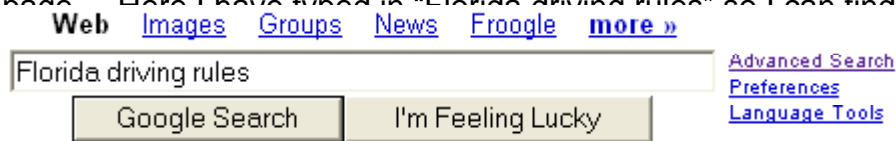
- <http://www.google.com/> (the full web address for Google)
- [www.google.com](http://www.google.com) (a common abbreviation for Google's web address)
- [google.com](http://google.com) (for lazy typists)
- [google](http://google) (works on some web browsers for the laziest of typists)

What's a **web browser**? Your Internet Explorer or Netscape Navigator program. Web browsers get you onto the Internet; search engines search for things on the 'net. Your Internet Service Provider home page may look something like mine:

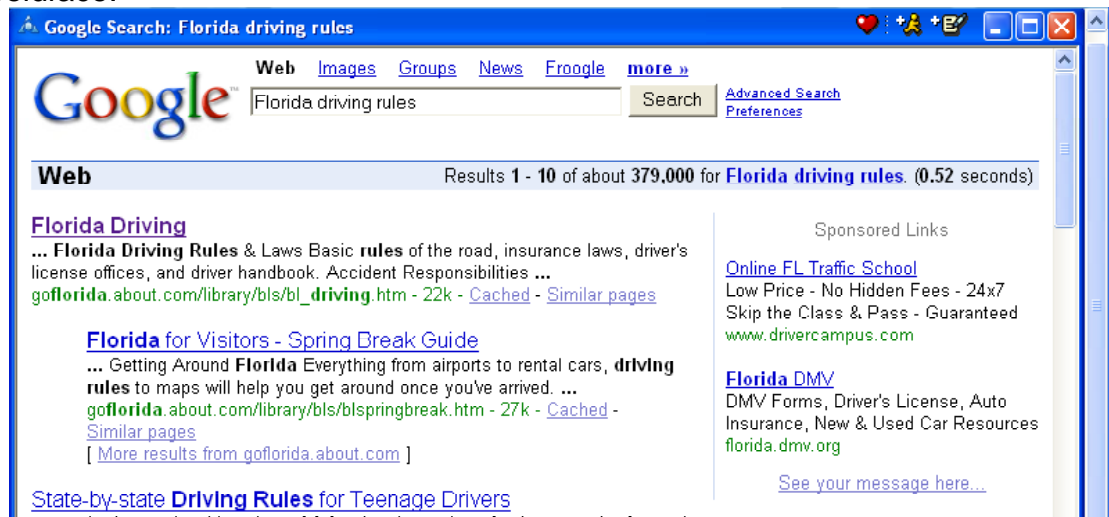


## How do I search for something on Google?

To start a Google search, type a word or phrase into Google's search box. You can use either the search box on Google's home page (shown on pg. 1) or the search box that appears at the top of each Google results page. Here I have typed in "Florida driving rules" so I can find the latest rules before I drive or



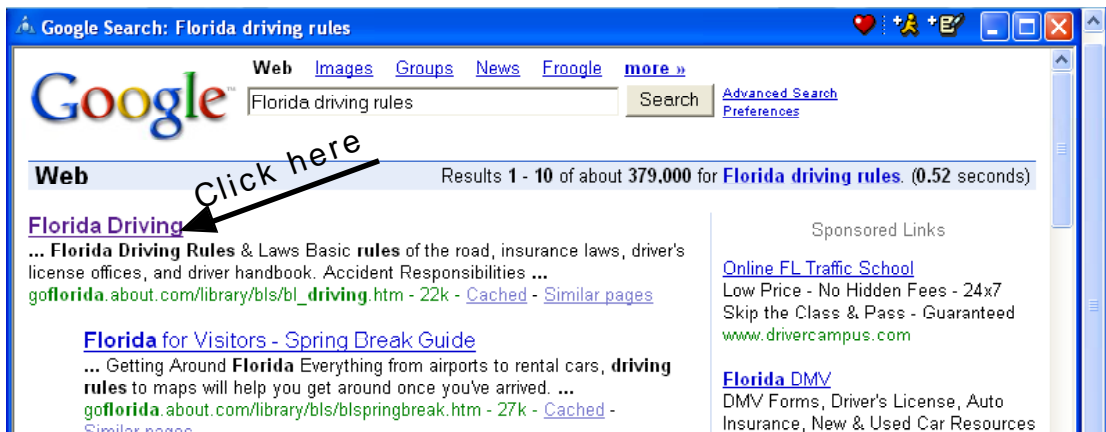
Next press the ENTER key or click the "Google Search" button to view your search results, which include links to pages that match your query along with relevant snippets (excerpts) with your search terms in a boldface.



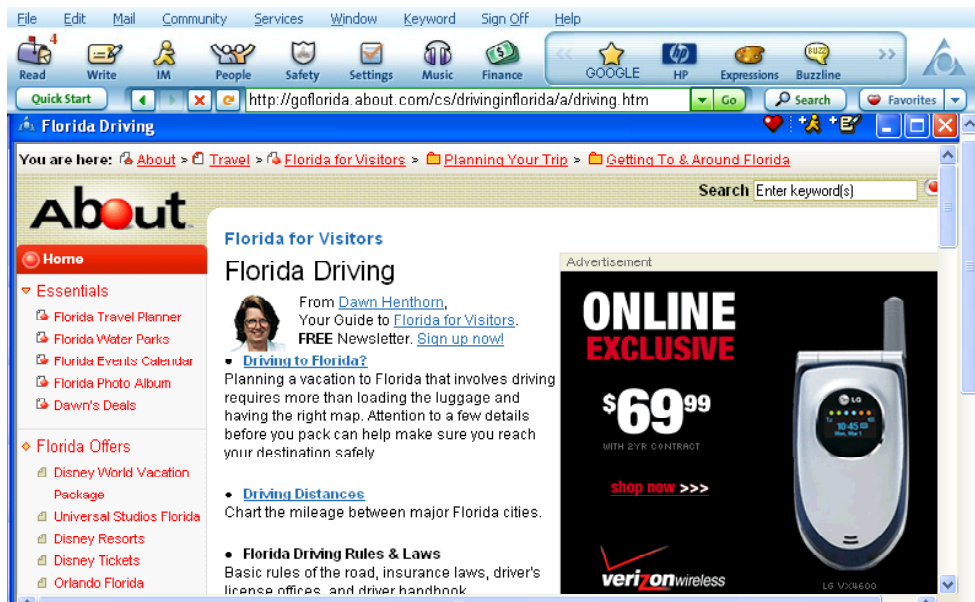
Google shows **results most relevant to your request on the left** (Florida Driving, Florida for Visitors, etc. in this screen shot). However, listings on the right (Online Florida Traffic School etc.) are **sponsored links, which are paid advertisements**.

## Now What Do I Do?

To view a page listed in your search results, click on the the first line in a result. Any of your question words that appear in the title will be in boldface, and the title will be underlined because it's a link to the web page. Under the title will be excerpts that include one or more of your question words, which will be in boldface. These excerpts are known as **snippets**.



Your results for a search on “Florida driving rules” may be different from what you see here since Google is **constantly searching the Web for new pages and adjusting its results algorithms**.



## Directly to the First Result

The ***I'm Feeling Lucky*** button will send you to the **most relevant result that is not a paid advertisement**. For example, if you enter the question [ Florida driving rules ] and click the *I'm Feeling Lucky* button, Google will send you to the home page of Dawn Hamilton's wonderful Florida driving guide.

The *I'm Feeling Lucky* button can save you the time it takes to review your results and then click on the first one. Use it when you're confident the page you want is the best fit for your query, which is usually the case when you're seeking very popular pages. For example, an “*I'm Feeling Lucky*” search for [ Tony Bennett ] will send you to his home page [www.tonybennett.net](http://www.tonybennett.net). There you can hear his songs, order his albums, see his many images, and read about his awards.

# Selecting Terms for Google Searches

## Choosing Keywords

Choose your keywords wisely. Keep these tips in mind:

- Try the obvious first.** If you're looking for information on Picasso, enter "Picasso" rather than "painters".
- Use only a few words** likely to appear on a site with the information you want. "Luxury hotel Dubuque" gets better results than "really nice places to spend the night in Dubuque".
- Make keywords as specific as possible.** "Antique lead soldiers" gets more relevant results than "old metal toys."
- Narrow your search **by adding more words** to the search terms you have already entered.

## Automatic "AND" Queries

By default, Google only returns pages that include **all of your search terms**. There is no need to include "AND" between terms. Keep in mind that the order in which the terms are typed will affect the search results. To restrict a search further, just include more terms. For example, to plan a vacation to Hawaii, simply type:

vacation hawaii	Google Search
-----------------	---------------

## Automatic Exclusion of Common Words

When Google detects very common words such as *where*, *how*, *do*, *I*, *for*, and *a*, known as stop words, it ignores them because they tend to slow down your search without improving the results. If you're seeking pages that include a stop word, e.g., "how the west was won," put quotation marks around the phrase to force Google to search for the **complete phrase**.

"Star Wars Episode I"	Google Search
-----------------------	---------------

## Capitalization

Google searches are **NOT** case sensitive. All letters, regardless of how you type them, will be understood as lower case. For example, searches for "george washington", "George Washington", and "gEoRgE wAsHiNgToN" will all return the same results.

## Use words likely to appear on the pages you want

- [ Picasso prints ]
- [ sciatica ]
- [ window treatments ]

## Avoid using a question as a query.

For example, the question, [ where do I apply for a passport in New Zealand ], instructs Google to find pages containing all the terms. Such a query won't necessarily find pages answering your question. A better query might be [ passport apply New Zealand ].

USE [ passport apply New Zealand ]

NOT [ where do I apply for a passport in New Zealand ]

## How can you come up with more specific search terms?

### Use more words to narrow your results.

Consider the query [ java ]. What do you suppose Google includes in the first page of results?

- A. An island in Indonesia?
- B. A beverage consisting of an infusion of ground coffee beans?
- C. A computer network-oriented, platform-independent, programming language developed by Sun Microsystems?

USE [ Java Indonesia ], or [ java coffee ], or [ java programming language ] NOT [ JAVA ]

USE [ baby development ] or [ baby milestones ] NOT [ BABIES ]

### Be brief.

While Google limits queries to 10 words, for best results, use just a few precise words.

USE [ quit smoking program ]

NOT [ program on quitting tobacco and cigarette smoking addiction ]

### You don't have to correct your spelling.

There's a good chance that Google will recognize your mistakes and suggest an alternative more common spelling, usually faster than you can look up the term in an online dictionary. Before clicking on Google's suggested spelling consider whether it's what you want. Spelling checkers, like people, make mistakes.

When you enter: [ Anna Kornikova tennis ]

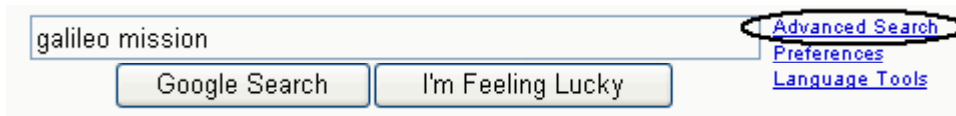
Google responds: Did you mean: Anna **Kournikova** tennis

### Note: Google **keeps a copy in its server computers of each web page it indexes.**

The newest version replaces any previous cached versions of the page. These old webpages are available to you from Google's Cache if a current version of the page you request is not available, or if you ask to see the previous version of a web page.

# Sharpening Your Query by using Google's Advanced Search Form

When you don't find what you're seeking, consider specifying more precisely what you want by using Google's Advanced Search feature. Don't be frightened by the name "Advanced Search"; it's easy to use, and it allows you to select or exclude pages with more precision than Google's standard search box. Click on the [Advanced Search](#) link, which is located to the right of Google's search box



Filling in the top portion of the Advanced Search form is an easy way to write restricted queries without having to use the “ , ” +, -, OR notation.

 A screenshot of the Google Advanced Search form. The form is titled "Google Advanced Search" and includes links for "Advanced Search Tips" and "About Google". The form is divided into several sections:
 

- Find results:** Four radio buttons for "with all of the words", "with the exact phrase", "with at least one of the words", and "without the words". Each has an associated input field. A "100 results" dropdown and a "Google Search" button are also present.
- Language:** "Return pages written in" with a dropdown menu set to "any language".
- File Format:** "Only" dropdown followed by "return results of the file format" and a dropdown menu set to "any format".
- Date:** "Return web pages updated in the" with a dropdown menu set to "anytime".
- Numeric Range:** "Return web pages containing numbers between" with two input fields and an "and" separator.
- Occurrences:** "Return results where my terms occur" with a dropdown menu set to "anywhere in the page".
- Domain:** "Only" dropdown followed by "return results from the site or domain" and an input field. Below the field is the text "e.g. google.com, .org" and a "More info" link.
- SafeSearch:** Two radio buttons: "No filtering" (selected) and "Filter using SafeSearch".

To find tutorial introductions to Google, specify [ google ] in the top field, and [ tutorial guide intro introduction ] in the third field (find results with **at least one** of the words).

 A screenshot of the Google Advanced Search form with specific search criteria entered. The "Find results" section has the following inputs:
 

- "with all of the words": google
- "with the exact phrase": (empty)
- "with at least one of the words": tutorial guide intro introduction
- "without the words": (empty)

 The "100 results" dropdown is set to "10 results" and the "Google Search" button is visible.

*Note:* Instead of specifying your own synonyms for tutorial, you can instruct Google to suggest its own by using the tilde operator, [ [google ~tutorial](#) ] or [ [google ~guide](#) ]. Here are the options on the Advanced Search Form:

**Language:** limit results to pages written in a specific language. For example, find pages in Spanish with recommendations for hotels in Andalucía, Spain.

**File Format:** restrict your results to a particular file format, or exclude a format from your results. Choices include:

File Format	Suffix	Description
Adobe Acrobat PDF	.pdf	A publishing format commonly used for product manuals and documents of all sorts
Adobe PostScript	.ps	A printing format often used for academic papers.
Microsoft Word	.doc	A common word processing format.
Microsoft Powerpoint	.ppt	A format for presentations and slides.
Rich Text Format Word	.rtf	A format used to exchange documents between Microsoft and other formats.

**Date:** restrict your results to pages updated in the past three, six, or twelve months. This option is useful when searching for timely information such as annual events, specifications for a new model of car or appliance, or what people have been doing lately.

**Numeric Range:** when you want pages containing numbers in a specified range. (price \$500-\$1000)

**Occurrences:** specify where your search terms **must** occur on the page. Choices are anywhere on the page, in the title, in the text, in the URL, or in links to the page.

**Domain:** search only a specific website (e.g., www.eff.org) or domain (e.g., .org) or exclude that site or domain completely from your search.

**SafeSearch:** specify whether to filter out sites that contain pornography or explicit sexual content and eliminate them from search results. Be aware that Google's automated filtering doesn't guarantee that you won't be shown offensive content.

The image shows a screenshot of the Google search interface with various filters. The search box contains the text "breast cancer treatment". Below the search box, there are four radio button options for finding results: "with all of the words" (selected), "with the exact phrase", "with at least one of the words", and "without the words". To the right of these options is a dropdown menu set to "10 results" and a "Google Search" button. Below this, there are several filter sections: "Language" (Return pages written in "any language"), "File Format" (Only return results of the file format "any format"), "Date" (Return web pages updated in the "anytime"), "Occurrences" (Return results where my terms occur "anywhere in the page"), "Domain" (Only return results from the site or domain, with a text input field and examples "e.g. google.com, .org" and a "More info" link), and "SafeSearch" (No filtering selected, with an option to "Filter using SafeSearch").

When you turn off SafeSearch filtering and search for non-pornographic content, Google will order your results in a way that adult sites won't be listed prominently. So while searching for [ breast cancer treatment ] with SafeSearch turned off, you're unlikely to see provocative breast images.

However, In an effort to return as many useful results as possible, SafeSearch doesn't currently filter out hate speech, anarchy, criminal activity, crude and tasteless material, illegal weapons, bomb making, etc., content that other filtering systems attempt to exclude.