

## Search Strategies

Use the following strategies to help narrow your search results and push the most relevant pages to the top of the results list.

### Identify Specific Keywords

To prepare for your search, you need to have a clear understanding of what information you are looking for. To identify keywords:

1. In one or two sentences, simply state what information you want to find:  
*I want to find information on methods of generating electricity.*
2. Identify the main ideas from each sentence:  
*I want to find information on methods of generating electricity.*
3. List synonyms and variant word forms of each keyword:  
methods (*method ways way techniques technique*)  
generating (*creating making producing*)  
electricity (*power energy current voltage*)
4. Combine synonyms, keywords, and variant word forms to produce more accurate search results.



(method\* OR way\* OR technique\*) AND (generating OR creating OR making OR producing) AND (electricity OR power OR energy OR current OR voltage)

### Boolean Search Parameters

Boolean searches (named after mathematician George Boole) allow you to limit, expand, or define your search using the words AND, OR, and NOT. Using these parameters in your search will return more accurate results with pertinent information.

#### AND

Tells the search engine to retrieve only Web pages containing **all** of the keywords. Web pages with just one or some of the keywords will not appear in the search results.



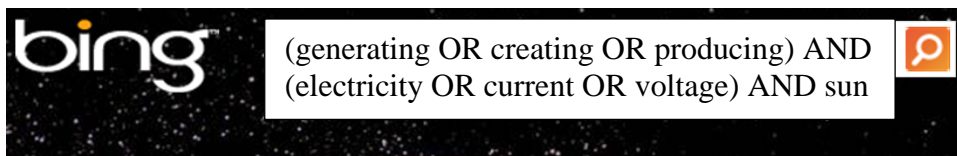
## OR

Tells the search engine to retrieve Web pages containing **any** of the keywords. This type of search is useful when you have common synonyms for a keyword. For best results, use parenthesis to surround OR statements.



## OR AND

To narrow results as much as possible, combine OR statements with AND statements.



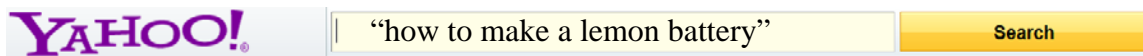
## AND NOT

Tells the search engine to retrieve Web pages containing one keyword but not the other. Use AND NOT to filter out undesired results when you have a keyword that has multiple meanings.



## Phrase Searching

Surround a group of words with double quotes to tell the search engine to only retrieve documents in which those words appear exactly as shown—next to each other and in the same order. Searching for a specific phrase can narrow Web page results considerably.



## Combine Phrase Searching and Boolean Parameters

To further refine search results, combine phrase searches with Boolean search terms. The following example will retrieve pages that contain both the phrase *electric current* and the word *circuit*.

## Word Variant Searches

The asterisk (\*) symbol tells a search engine to return alternate spellings for a keyword at the point where the asterisk appears. Using an asterisk can broaden your search results and return pertinent Web sites. For example, searching for *electric\** would return Web pages containing the words *electricity*, *electrical*, *electrician*

## Field Searching

Field searching is an effective technique for narrowing search results and getting the most relevant Web sites listed at the top of the results page. A Web page consists of a number of fields:

- Title
- Domain
- Host
- URL

Searching for keywords in specific fields can return narrow and focused results. For example, the following search string:

*TITLE: "Benjamin Franklin" AND electricity AND history*

instructs the search engine to return Web pages where the phrase *Benjamin Franklin* appears in the title and the words *electricity* and *history* appear somewhere on the page. Note that there is no space between the colon and the keyword.

A few other field search examples include:

*DOMAIN: edu AND electromagnetism*

Returns Web pages with an .edu domain and containing the keyword  
*electromagnetism*

*HOST: www.intel.com AND electromagnets*

Returns Web pages hosted by Intel.com and containing the keyword

*electromagnets*

*URL:electric AND TITLE:magnets*

Returns Web pages with the keyword *electric* in the URL address and the keyword *magnets* in the title.

## Link Searching

Link searches are useful when you want to know what Web sites are linked to a specific site you are interested in. For example, if you find an informational Web page about electric currents, you may wonder if anyone has put a link to this page on their Web site. This can lead to additional useful resources and is another strategy for effective information searches. For example:

*LINK:www.ElecticityIsFun.com*

Content adapted from Web Search Strategies, <http://www.learnwebskills.com/search/main.html>\*

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## Resources for Internet Search Strategies

### **About.com: The 10 Best Search Engines of 2012**

[http://netforbeginners.about.com/od/navigatingthenet/tp/top\\_10\\_search\\_engines\\_for\\_beginners.htm](http://netforbeginners.about.com/od/navigatingthenet/tp/top_10_search_engines_for_beginners.htm)\*

### ***Nuts and Bolts of Searching.* A collection of lesson plans from the CyberSmart! Curriculum, grades K–8.**

<http://cybersmartcurriculum.org/researchinfo/lessons>\*

### **NY Times: Helping Children Find What They Need on the Internet**

[www.nytimes.com/2009/12/26/technology/internet/26kidsearch.html?\\_r=1](http://www.nytimes.com/2009/12/26/technology/internet/26kidsearch.html?_r=1)\*

### **NY Times: Just Google It? Developing Internet Search Skills**

<http://learning.blogs.nytimes.com/2010/02/22/just-google-it-developing-internet-search-skills>\*

### **ReadWriteThink: *Wading through the Web: Teaching Internet Research Strategies***

[www.readwritethink.org/classroom-resources/lesson-plans/wading-through-teaching-internet-983.html](http://www.readwritethink.org/classroom-resources/lesson-plans/wading-through-teaching-internet-983.html)\*