Searching Web of Science

1. What subjects and publication types are included in the database?

   The three indices that make up Web of Science cover all subjects and journal articles only. No other publication type is indexed unless it appears in a journal. For the most part the journals indexed are in English not any other language.

2. What are the coverage dates?

   Science Citation Index is 1899 to the present.
   8,090 journals are indexed
   Social Science Citation Index is 1900 to the present.
   2,000 journals are indexed
   Arts & Humanities Citation Index is 1975 to the present.
   1,200 journals are indexed
   Conference Proceedings Citation Index is 1990 to the present.

3. What Boolean or Proximity operators are used by the database?

   1. NEAR/x  Use NEAR to find both concepts within x words of one another
   2. SAME  Works only when doing an Address search.
   3. NOT  Use NOT before the concept you want to eliminate
   4. AND  Use a space between key concepts.
     Example: aspirin blood
   5. OR  Use OR between synonyms and enclose them in parentheses.
     Example: aspirin (blood OR hemoglobin OR plasma)

4. If truncation is allowed then what symbols are used?

   a. Automatically finds variant word endings, plurals, & British spellings
   b. You can force truncation:
      Asterisk (*) – represents any group of characters, including no character.
      Dollar Sign ($) – represents zero (0) or one (1) character.
      Question mark (?) – represents any single (1) character.

5. If wildcards are allowed then what symbols are used?

   Same as in question 4.

6. How do you search for a phrase?

   To search for an exact phrase, enclose the phrase in quotation marks.

7. Is it possible to group words from the same concept?

   Yes. Use parentheses, example: (blood OR hemoglobin OR plasma).

8. Any unique features?

   You can do a cited reference search
   There are no stopwords.
From the Chemistry Library homepage (chemistry.library.nd.edu) click on the Web of Science link in the center column of the page.

For this practice:
- Be sure the **Web of Science** tab (at the top of the page) is selected.
- Be sure the **Search** link (under the tabs) is selected.
- Be sure the **Timespan**: is All years &
  **Current Limits**: includes the five databases mentioned above.

**SEARCH - Topic**

1. Circle the key concepts in the following sentence:
   
   *What is the effect of aspirin on blood clotting?*

2. Type the sentence from #1 into the topic search box. (don’t include ?)

   How many records are found? __________________________
   
   (You should get more than 0)

   In each record, the system identifies your search terms by highlighting them with a light yellow box. Look at a record and write the key concepts identified by WoS.

**Stopwords & Key Concepts:** WoS doesn’t identify any stopwords or key concepts.

3. Search for the key concepts. Type **aspirin blood clotting**

   How many records are found? __________________________
   
   (You should get more than 250)

**Implied AND:** WoS inserts the Boolean AND between each word of your search.

**Synonyms:** WoS does not look for synonyms nor does it identify synonyms. You must supply the synonyms by using the OR operator.

**Rule 1:** Put an OR between synonyms or related terms

- **Correct:** holiday* OR thanksgiving OR Christmas OR Easter
- **Incorrect:** holiday* thanksgiving Christmas Easter
**Phrases:** Use “quote marks” to tell WoS you are looking for a phrase

**Truncation:** WoS looks for variant endings of a word unless the word/phrase is within quotes. You can force the system to get variant endings by using the truncation symbols (* $ ?). The asterisk is the one you will use most frequently.

- * for any number of characters;
- $ for 0 or 1 characters;
- ? for exactly 1 character.

4. How many records contain aspirin or its synonyms salicylic acid and acetylsalicylic acid? Remember to consider variant endings and searching for phrases.
   (You should get between 57,000 and 57,600 records.)

5. How many records contain blood clotting or its synonyms coagulation and coagulopathy? Remember to consider variant endings and searching for phrases.
   (You should get 95,000 and 97,000 records.)

**SEARCH HISTORY**

Click the Search History link

You can combine previously created sets.

6. Combine the two sets you created in #4 and #5 using AND as the Boolean operator. How many records are found?
   (You should more than 1,100)

   How does this compare with your results in #3? More Same Less

Now you are ready to add another concept or use NEAR or limit to Reviews.
SEARCH - Topic

Rule 2: Put an OR operator between synonyms or related terms and if there is another Boolean operator then enclose them in parentheses.

\textit{correct:} \ tradition\$ AND \ (holiday\* OR thanksgiving OR Christmas OR Easter)  
\textit{incorrect:} \ tradition\$ AND holiday\* OR thanksgiving OR Christmas OR Easter

Using Parentheses: Use parentheses to group synonyms of a key concept or to group disparate concepts. Separate each word/phrase within the parentheses by the Boolean OR.

PROXIMITY Searching to get very focused results

Proximity of key concepts: Using AND does not mean the key concepts are close to one another – one key concept could be in the first sentence of the abstract and the other could be in the last sentence.

\textbf{NEAR/\textit{x}:} Use this to find key concepts within \textit{x} words of each other in either order. If you don’t specify an \textit{x} then the default is 15.

7. Combine the two sets you created in \#4 and \#5 using NEAR/\textit{x} as the proximity operator.
   1. Go to the Search History tab - Copy the search strategy (Topic=\ldots) for Q4. Click \textbf{Search} link and paste into the \textbf{Topic} box
   2. Type \textbf{NEAR/5}
   3. Copy the search strategy (Topic=\ldots) for Q5 and paste into the \textbf{Search} – \textbf{Topic} box
   4. The \textbf{NEAR/5} operator should be between the two concepts
   5. Delete “Topic=” then search.

A. How many records did you find using \textbf{NEAR/5} \__________________
B. How many records did you find using \textbf{NEAR/15} \__________________
C. Circle the answer set would you want to have
   \#2 (sentence) \quad \#3 (key concepts, implied AND, no phrase)
   \#6 (key concepts with related terms, OR, phrase, parentheses)
   \#7A (NEAR/5) \quad \#7B (NEAR/15)?

D. Why did you select that answer set?

The \textbf{Refine Results} (blue area on the left of the page) is a filtering mechanism for your current search.

8. From the Search History tab click the results of the set you circled in Q\#7C
   How many Review articles are there? \__________________
   (look for the Document Type filter)
CITED REFERENCE SEARCH – Cited Author & Cited Work

Cited Reference searching is the most important feature of Web of Science. It allows you to come forward in time with research.

For example, let’s say I have just written an article about Vitamin C and in my article I cite the book *Vitamin C and the Common Cold* by Linus Pauling. You have a copy of Linus Pauling’s book *Vitamin C and the Common Cold* published in 1970 and you want to find out who is doing current research on the topic of Pauling’s book. The first place you would go would be to a database that allows you to do cited reference searching such as WoS or SF. You would then discover that my article cited the Pauling book therefore my article might be of interest to you.

**Rule 3:** Cited references will include
1. pre-1900 records;
2. records to non-journal publication types (e.g. patents, conference proceedings, books, foreign language serials, etc.);
3. records to serials not indexed

Click the Cited Reference Search link.

9. Frank J. Castellino published an article in *Journal of Molecular Evolution*.
   a. How many times has it been cited?
      (Cited Work uses the journal abbreviation. Click journal abbreviation list to get the correct form of the name.)

   This article has been cited three different ways. One is correct and two are incorrect. The entry with the View Record link is the citation recorded when WoS indexed the article. As a result, it has the correct year, correct volume, and correct starting page.

   b. Record the year this article was most recently cited.
      (Select the desired citation(s) and click the Finish Search >> button.)

    a. What year was the article published?
ADVANCED SEARCH

For those that feel very confident about their understanding of Boolean operators and parentheses and don’t want to be constrained by the boxes on the General Search page then this is the page for you. The Advanced Search page does not permit you to do any Cited Reference searching.

Look at the advanced search page before doing the next four questions: There is a search box near the top of the page. Above the search box are two sample searches with a link to more sample searches. To the right of the search box is a box listing all the available the field tags and Booleans. Below the search box is the search history.

SAME: Use this proximity operator only when searching for an address.

11. How many articles are from your hometown?
   (Be sure to include the US state abbreviation or Canadian province abbreviation or country name. For example, Cambridge is a city in Australia, 2 Canadian provinces, England, New Zealand, and 25 US states.
   Help (upper right corner) -> Index (upper right corner) -> Abbreviations – States Or Abbreviations – Countries
   
   (Use ad=“notre dame in” instead of the ci and ps fields.)

   Write hometown and answer on the blackboard.

12. Revisit #7C – Ask your neighbor what answer set they selected for question #7C. If they selected something different than yourself, then arrive at a consensus choice by trying to convince them that your choice was the better choice. What answer set did you agree upon?

   #2 (sentence)  #3 (key concepts, implied AND, no phrase)
   #6 (key concepts with related terms, OR, phrase, parentheses)
   #7A (NEAR/5)  #7B (NEAR/15)?
13. How many articles were published in 2011 coming from the Notre Dame IN.

14. How many articles were published in 2011 coming from the Notre Dame zip code (46556).

15. Why are the answers different for #13 and #14? Use the power of the database: use the Boolean NOT, then look at the first three results to answer this question.

SEARCH - Author

Rule 4: Web of Science does not record first names or middle names just first initials and middle initials. WoS automatically truncates what is entered in the author field.

Incorrect: Kennedy, John F.
OK: Kennedy JF
Better: Kennedy J

16. How many articles have Paul M. Helquist as an author.
(You should get more than 180.)

Of course, you don’t know if you have Paul M. Helquist (a Notre Dame faculty member) or some other Paul or Peter or Phyllis or Patricia. There are two ways to limit your results by additional information.
Analyze Results (near the top of the page on the right side or at the bottom of the green area) is preferred because it performs an actual search that is recorded in the search history.

The Refine Results (green area on the left of the page) is a sorting/display mechanism for your current search. Results from using Refine Results are not recorded in the search history.

Choose Analyze Results to answer #17.

17. How many of those articles from #16 are written by someone associated with the University of Notre Dame?  
(You should get more than 125)

Click the check box for the Notre Dame results then click the View Records button before proceeding

Use Refine Results to answer #18 & #19.

18. Based on your answer in #17 – In which source does Paul Helquist most frequently publish?

19. Based on your answer in #17 – In which year did Paul Helquist have the greatest number of publications?

SEARCH – Author (multi-part last names)

Rule 5: Search multi-part last names with a $ truncation symbol between the parts.

Example:  van$buren m  is the way to search for Martin van Buren

20. Nancy J Miller-Ihli is a research chemist for the U.S. Dept. of Agriculture. She has been at the USDA for over 20 years. How many articles are indexed in WoS?  
(You should get more than 60 articles.)

Optional: If you want to test things then redo the search several different ways:

   Miller-Ihli NJ   Miller Ihli NJ   MillerIhli NJ