Outline for Today:

- Primary literature (in the sciences)
- Finding journal articles – Web of Science
- Managing & citing the articles – EndNote (basic version)
- The Assignment!
Introduction to how the journal literature in the sciences works

Practice:
  - Finding journal articles on a topic
  - Working with a reference/citation manager
PRIMARY LITERATURE IN THE SCIENCES
Primary Literature

- The first time original research results are published
- **In the sciences** this is *usually* peer-reviewed journal articles
- Journals are “serials”; libraries subscribe to them
- Other primary sources could be:
  - Patents
  - Conference proceedings
  - Chapters in edited books
The peer review process

Scientists study something.

Scientists write about their results.
Scientists study something.

Scientists write about their results.

Journal editor receives an article and sends it out for peer review.

Peer reviewers read the article and provide feedback to the editor.
Scientists study something.

Scientists write about their results.

Journal editor receives an article and sends it out for peer review.

Peer reviewers read the article and provide feedback to the editor.

Editor may send reviewer comments to the scientists who may then revise and resubmit the article for further review. If an article does not maintain sufficiently high scientific standards, it may be rejected at this point.

If an article finally meets editorial and peer standards it is published in a journal.
FINDING JOURNAL ARTICLES
What are databases?

- Also called indexes
- Index the contents of thousands of scholarly journals (library subscribes to ~60,000 ejournals)
- Library subscribes to many different databases (~500) – many very subject-specific, others multidisciplinary
- Why not just Google? (Or Google Scholar?)
- Databases have very powerful tools to help you refine your searches
Web of Science (WoS)

- Large multidisciplinary database, excellent coverage of the sciences
  - Comprehensive but not all-inclusive!
  - Also see Scopus – main competitor for WoS

- WoS indexes 12,000+ journals; updates added weekly

- Also known as a *citation index*
  - Helps you “go forward in time” since article’s publication
  - Tracks citations > provides metrics on *impact* of articles and journals
Database Search Tips

- What are the main concepts in your topic?
  Were dinosaurs warm-blooded?

- Think of synonyms and alternate spellings for these words
  
  **Dinosaurs:** Dinosauria
  
  **Warm-blooded:** endothermy, homeothermy, thermoregulation, etc.
  
  - “cold-blooded”, ectothermy
  - “body temperature”
Database Search Tips

**Boolean Operators: AND**

- Use for: combining different concepts

![Venn Diagram]

- **A**: dinosaurs
- **B**: warm-blooded
- **AND** narrows search
Database Search Tips

**Boolean Operators: OR**

- Use for: combining synonyms

![Venn diagram](image)

- endothermy
- warmblooded

OR

expands search
More Database Search Tips!

- Use * at the base of the word to search for all the possible endings of that word
  - Fossil*: fossil, fossils, fossilization

- Use “ ” to search for phrases
  - “mass extinction”

Web of Science only:

- Use NEAR/x to search for terms close together
  - Dinosaur* NEAR/10 warm-blooded
DEMONSTRATION – WEB OF SCIENCE
MANAGING & CITING ARTICLES
What are “citations” or “references”?

- The “references” listed at the end of an article or book (in the bibliography)
- Contain all the info needed for your readers to find the item
Citation Management Software

- Software that organizes all of the references/citations that you are working with
- Helps you create bibliographies in many different citation styles
- Saves time! BUT you still need to proofread

- Some popular examples:
  - EndNote (Basic is free; software is not!)
  - Other free (basic) options: Mendeley, Zotero
Assignment

- Due Fri Mar 29, in class
- 10%
- Two parts – please hand them in separately
Science Library

Need Help?

- DeDe Dawson dede.dawson@usask.ca
  Office 180.6 in Science Library
- Staff in the Science Library can help you too!
- A library guide to Geology resources:
  http://libguides.usask.ca/geology
  (Under “Course Pages” see tab: Geol247)