

# Vanier College Library Guide: Science

## Why the Library?

Scientific information is in constant flux and resources become out of date very quickly. In addition, more and more information found on the Web is not factual and can actually be harmful. There are scholarly and credible resources on the World Wide Web, but why use them or have to sift through a lot of disinformation when colleges and universities subscribe and pay for very expensive scientific resources for you?

The Vanier College Library includes many books, articles and films that you can access from home. This guide will demonstrate how to find them.

## Short Cut to Library Resources

To find books in the Vanier College Library, go to [our catalogue](#).

To find scholarly articles in the sciences as well as other topics, go to our [list of databases](#).

Image: <https://guides.loc.gov/einstein-annus-mirabilis/print-resources>

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### What's Included

- How to find Books.
- How to find scientific studies (databases).
- How to find open access journals.
- Useful Web pages.



## Search for Books in Print

Books in academic libraries are useful because an expert has completed extensive research about a topic. Books often include bibliographies for additional resources.

As well, the information in a scholarly book has been reviewed and edited by experts in the field (peer-reviewed).

Libraries continually update scientific material to assure accuracy and credibility.

Search the [library's catalogue](#).

Conduct an Advanced Search to have more options and to narrow your search.

Image: <https://ingeniumcanada.org/scitech/exhibitions/percival-collection>

“The image of women in scientific roles has to be normalised, and the role models should be heard to inspire younger generations and create a virtuous circle to counteract the silencing of women’s voices in science.” Samer, C., Lacombe, K. & Calmy, L. (2020). Cyber harassment of female scientists will not be the new norm. *The Lancet Infectious Diseases*.

### Science Book Titles with Call Numbers

The Madame Curie Complex: The Hidden History of Women in Science  
Q 141 D44

Quantum Computing for Everyone QA 76.889 B47

The Future of Humanity: Terraforming Mars, Interstellar Travel, Immortality and our Destiny Beyond Earth.  
QB 461 K343

Why Ecology Matters  
QH 541 K677

Life's Engines: How Microbes made Earth Inhabitable QR 13 F35

Lyme: The First Epidemic of climate Change RA 644 L94

## Library of Congress Classification System

The library uses the Library of Congress (LC) classification system with the letters A – Z representing subjects ([loc.gov/catdir/cpsol/lcco](http://loc.gov/catdir/cpsol/lcco)). When you search the catalog, your results will be contained in bibliographic records. The records include information about the book, including where it is located and if it is available. Every book in the library has an LC call number and you need it to find a book in the library.

Science books often begin with the following LC letters:

Q = General Science	QA Mathematics	QB Astronomy
QC = Physics	QD = Chemistry	QE = Geology
QH = Natural History (Biology)	QK Botany	QL Zoology
QM Human Biology	QP Physiology	QR = Microbiology
R = Medicine	RA = Nutrition	TX = Food

This classification system is also used in other academic libraries such as Concordia and McGill.



<https://images.nasa.gov/details-MSFC-202100035>

## Search for Scientific Articles (Databases)

The Vanier College Library subscribes to a variety of databases, but you may only have to use a few of them to complete your search.

These databases are recommended for research in the sciences:

**SCIENCE DIRECT:** Use their advanced search and plan your search strategy carefully. Science Direct provides encyclopedias, handbooks, books, scientific reviews and/or research results.

**EBSCO:** Search the individual databases or all of them at once to find your topic. Greenfile is better one for scientific information.

EBSCO includes an eBook database as another option for books.

**JSTOR** supplies historic information about topics in the sciences (biological sciences, zoology, ecology, etc.). Pamphlets, books and articles beginning in the 1800s until today are accessible. Scientific images (such as botanical) can also be found here.

### Library Guides

Library of Congress librarians created guides for Science and Technology. They can be found here: <https://guides.loc.gov/science-technology>

Topics include the following:

African American Studies

Agriculture & Horticulture

Architecture

Biology

Chemistry

Computer Science

Earth Sciences & Geology

Energy

Environment

Environmental Studies

Food & Nutrition

Gender & Women's Studies

Geography

Health & Medicine

History

Physics & Astronomy

More science guides can be found @: [www.loc.gov/rr/](http://www.loc.gov/rr/)

## GALE Opposing Viewpoints

This database (located under G) takes controversial topics and presents different viewpoints. Issues related to science are often under discussion. Scholarly articles, statistics, newspapers, videos, Web pages, etc. come as a “package” of information.

Scientific topics include:

Biofuels

Cloning

DNA

Evolution

Genetic Disorders

NASA

Nuclear safety

Oceans

Renewable Energy

Self-driving Cars

Space Exploration

Stem Cells

Vaccines

## GALE

Gale eBook platform (under G on the database list) includes a collection of scientific encyclopedias to help you find short, concise information. They can be used to find topics for your research, define terms you don't know, or determine keywords to use for your searches.

The online reference books can be searched individually or all together.

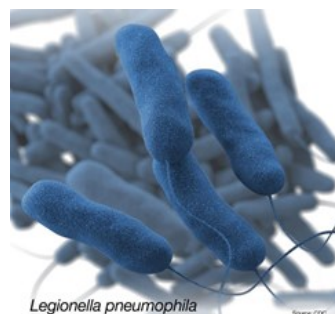


Image: <https://phil.cdc.gov/>

## Encyclopedia Britannica

The Encyclopedia Britannica e-version (see our [database list](#) under E) gives you access to articles, images, videos, and biographies. It includes primary sources and links you to Web pages outside of its content. You can choose a scientific discovery, a scientist from any century, or an idea. The articles can be very short or long. The videos demonstrate what you look up in a print encyclopedia. For instance, you can watch lava flow out of a volcano or hear the birds in an Arizona desert. Primary sources include speeches, letters, photographs and memoirs. Diagrams and additional readings are also provided. There are world maps and a dictionary.

## Government Documents

The Canadian government (<https://www.canada.ca/en>) offers extensive articles and reports in the sciences & technology, as well as statistics (<https://statcan.gc.ca>) about topics relevant to our society. Almost every publication is in French and English.

The United States government \* ([www.usa.gov](http://www.usa.gov)) also provides information about topics such as patents and technology.

\*Always check for bias.

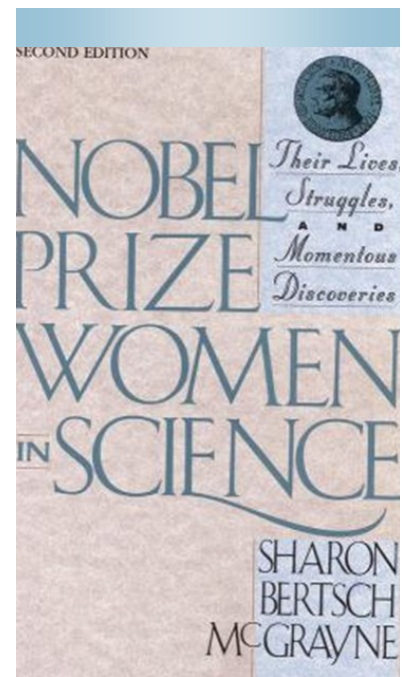
## Open Access Journals

“Open access (OA) refers to freely available, digital, online information. Open access scholarly literature is free of charge and often carries less restrictive copyright and licensing barriers than traditionally published works, for both the users and the authors. While OA is a newer form of scholarly publishing, many OA journals comply with well-established peer-review processes and maintain high publishing standards .”

Source: <https://guides.library.cornell.edu/openaccess>

The Vanier College library links to the Directory of Open Access Journals (DOAJ). It is an “Independent database with over 15,000 (worldwide) peer-reviewed open access journal titles.” The database includes science, technology and medicine, as well as other fields.

Image: <https://guides.loc.gov/women-in-science/introduction>



*“We must not forget that when radium was discovered, no one knew that it would prove useful in hospitals. The work was one of pure science...”*

Marie Curie’s lecture at Vassar College in Poughkeepsie, NY, May 14, 1921 <https://www.azquotes.com/quote/367277>

## The World Wide Web & Credible Sources

If you are going to use the WWW through the Internet (and you will) here is some important information to consider.

Who is the “author” of the page? Have they included contact information? Do they own the information? Is it an academic institution? Is it government sponsored? Is it a company?

Has it been updated? When?

Why is the information provided for free? Is it open access and peer-reviewed?

Is there a bibliography from which to discern where they obtained the information? If so, are the works cited up to date?

Is the information copyrighted and do you have permission to use the information? Are you using less than 10% of the entire work, so that you can claim fair dealing as a student or faculty member in an educational institution?

Does the site have trackers to follow your searches and use your data for profitable purposes? Is the site secure and locked?

Here are two great science Web sites. Research universities are also excellent resources such as MIT.edu.

UNESCO works to assist countries to invest in science, technology and innovation (STI), to develop national science policies, to reform their science systems and to build capacity to monitor and evaluate performance through STI indicators and statistics taking into account the broad range of country-specific contexts. <https://en.unesco.org/themes/science-sustainable-future>

PubMed Central is a free full-text archive of biomedical and life sciences journals. It comes from the United States National Institutes of Health’s National Library of Medicine. [www.ncbi.nlm.nih.gov/pmc/](http://www.ncbi.nlm.nih.gov/pmc/)

Image: Marie Skłodowska Curie, half-length portrait, seated, facing right]. [between 1890 and 1934]. Library of Congress Prints and Photographs Division. <https://guides.loc.gov/women-in-science>



The Vanier College Library is a part of the Learning Commons and provides students, faculty and staff with resources in the sciences. The library also provides study spaces (silent, quiet and group), study rooms for six students or less, laptops, iPads, headphones, and printers. There is also a small number of textbooks available on Reserve.

Please contact a librarian if you have questions about the resources ([Web page](#)).

## Citations

You must give credit to the scholars that helped you write your paper (Canadian copyright law). This is the reason you include a bibliography.

The original book from the American Psychological Association: **Publication Manual of the American Psychological Association** (Ref. BF 76.7 P83 2020) is located in the library.

The APA Web page has guides: <https://apastyle.apa.org/style-grammar-guidelines/references/examples>

**Databases provide citations:** Although all our databases provide citations to use within your papers and bibliographies, many of them are incorrect or need to be reformatted. Always consult the APA manual. Contact a librarian to ask questions and we will consult the books.

**The Purdue University Writing Lab** Purdue university librarians and writing specialists provide guides for their faculty and students. We have received permission to give you the link [https://owl.purdue.edu/owl/research\\_and\\_citation/apa\\_style/apa\\_style\\_introduction.html](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_style_introduction.html).

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[www.vaniercollege.qc.ca/learning-commons/library](http://www.vaniercollege.qc.ca/learning-commons/library)

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