STEM OER: Tips on the best open educational resources for science, technology, engineering, and mathematics

This document contains the content from the *Best OERs in STEM* presentation of July16,2020

# What is the difference amongst Open Science, OA (Open Access) and OER (Open Educational Resources)?

## Open Science

[Open Science](https://www.cos.io/) is the movement to make scientific research and data accessible to all.

It includes practices such as publishing open scientific research, including data and publishing research protocols. It also includes [open notebook science](https://en.wikipedia.org/wiki/Open_notebook_science), [citizen science](https://en.wikipedia.org/wiki/Citizen_science), and aspects of [open source software](https://en.wikipedia.org/wiki/Open-source_software) and crowdfunded research projects.

## Open Access (OA)

OA is free, immediate online availability of research articles, coupled with the rights to use these articles fully in the digital environment.

## Open Educational Resources

They are teaching and learning materials that are freely available online for everyone to use, whether you are an instructor, student or self-learner.

# Some OER sources

* LibreTexts
  + <https://libretexts.org/>
* NCBI bookshelf
  + <https://www.ncbi.nlm.nih.gov/books>
* MERLOT
  + <https://www.merlot.org/merlot/index.htm>
* B.C. Campus OpenEd
  + <https://open.bccampus.ca/browse-our-collection/>
* OER catalogue compiled by Waterloo Library
  + <https://uwaterloo.ca/open-scholarship/catalogs/where-find-oer>

# Your librarian by subject

* <https://uwaterloo.ca/library/services/librarians-subject>
* contact your librarian by subject for help on finding OER sources

# Open to your questions now ….

Presented by Kathy Szigeti, librarian for chemistry, chemical engineering and research data management