

Data Analysis Resources

Especially good for geography, math projects, sciences, social sciences, economics

**Last updated by Ms. Davidson November 2021. And thank you to those who sent me additional suggestions to add to this document - yay to crowdsourcing!*

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AI Tools

- *Do NOT use these tools to do the analysis for you, if your assignment is assessing your ability to analyze data,
- **ChatGPT and Google Gemini** are both able to analyze datasets in different ways, including providing visuals. Always double check the work though, as they make mistakes.
- **Copilot** in Excel is AI that can help you analyze data as well.
- **[Constellate](#)**: Teach, learn, and perform text analysis with scholarly and primary source content
- There are multiple other data analysis tools available, but most come at a cost. They often provide free trials, however.

Response Collection

- Peardeck (which we currently have integrated into our Google Docs)
- [Mentimeter](#)
- [Socrative](#)
- [Poll Everywhere](#)
- Google Forms

Infographic Tools

- [Infogr.am](#)
- [Piktochart](#)
- Google Charts and Tables

Data Analysis/Simulations Tools

Various Subjects

- **Tubric**: project-based driving question development tool.
- [Wolfram Alpha](#)
- [ExploreLearning](#)
- Google Sheets
- [Science Journal](#)
- [Google Experiments](#)

Geography

- [National Geographic Mapmaker tool](#)
- [ArcGis Online](#): ask your I&S teacher for student account access.

Sciences

- [Databasic.io](#): a suite of tools - includes activity guides

- [Algodo](#): engineering simulations
- **Science Journal** (free app): transforms your device into a pocket-size science tool that encourages students to explore their world. As they conduct eye-opening experiments, they'll record observations and make new, exciting discoveries.
- **PhET simulations**
- **Royal Society of Chemistry**: various grades levels
- **Chem Collective**: **virtual labs**, **simulations**, etc.
- **Science by Simulation**
- **Tracker**: video analysis and modeling tool
- **Virtual Labs**
- **Dual level app**
- **Sound-level meter app**
- **More online simulations ideas (My IB forum)**: only teachers have access to this.
- **More in this crowd-sourced IB document (physics)**
- **A list of chemistry simulations**
- **Data Classroom**: by subscription - free trial available
- **Phyphox** (free app): physical phone experiment apps - use sensors, export data, remote control, custom experiments.
- Flynn (free for COVID, some registration required)
 - teacher resources such as **completely web-based tools** where students can design, analyze, and simulate their designs, hundreds of times, from a web browser, and compete with other students throughout their district. Fully-Integrated Teacher LMS is included.
 - **digital dissection**
 - **At-home activities**: middle and high school, various STEM disciplines

Math

- **Math simulations - PhET**
- **Illuminations**: visual concepts
- **Create a Graph**
- **Middle-school math interactives**: requires Flash

Open Data Sources

(these are but a small sampling)

**Tip: look at the appendices and works-cited/references lists in journal articles for possible sources of raw data.*

Various

- [Our World in Data](#)
- [Kaggle](#)
- [Data Dryad](#): “Our mission is to provide the infrastructure for, and promote the re-use of, data underlying the scholarly literature.”
- [Dalhousie University libguides](#): links to data for business, economics, First Nations, health, income, housing, politics, transportation etc.
- [SFU libguides](#): links to global data and statistics
- [Amazon Web Services Public Datasets](#): e.g. human genome, infrared atlas of the galactic plane, climate data, Marvel universe social graph, petroleum public data set, etc. etc. etc.
- [Google Trends](#)
- [Google Public Data](#)
- [Google Dataset Search](#)
- [Research Data Australia](#)
- [Pew Research](#)
- [DATA.GOV](#): U.S. government’s open data
- [World Bank Open Data Catalog](#)

Sports and Sport Science

- [Kaggle Sports](#)
- Visual analysis video collections from [Stanford](#) and [Michigan State](#) (may also be useful for physics projects).
- [American Statistical Association Statistics in Sports](#)
- Human kinetics micro datasets (participation, injuries, economics, athletes etc.) via [The University of Windsor](#)

Sciences and Physical Geography

- UVIC's [Ocean Networks Canada](#): includes [educator resources](#) that incorporate selected data.
- [Data Nuggets](#): high-school sciences
- [CERN physics](#)
- [California State University chemistry data links](#)
- [US Cancer Data](#)
- [United States Environmental Protection Agency](#)
- [NIST scientific and technical data](#)

- [Knowledge Network for Biocomplexity](#)
- [Machine Learning Repository](#)
- [National Centers for Environmental Information](#)
- [Berkeley Library Raw Datasets](#): health
- [Open NASA](#)
- [NASA Earth Observation](#)
- [World Bank climate change data](#)
- [Global Health Data](#) (World Health Organization)
- [Centers for Disease Control and Prevention](#)
- [Nullschool](#) global wind, waves, currents, weather (from NASA data)
- [ArcGIS Living Atlas of the World](#)

Social Sciences/Humanities

- [Vancouver Police Department crime map](#)
- [Government of Canada Open Data](#): Search open data that is relevant to Canadians, learn how to work with datasets, and see what people have done with open data across the country.
- [Statistics Canada](#)
- [US Census Bureau](#)
- [Canadian Index of Wellbeing](#) (various datasets - health, crime, environment etc.)
- [United Nations Data Portal](#)
- [CIA World Factbook](#)
- [Gapminder](#): from sources including the World Health Organization
- [Google Finance](#): stock market data
- [FBI Crime in the USA](#)
- [ArcGIS Living Atlas of the World](#)