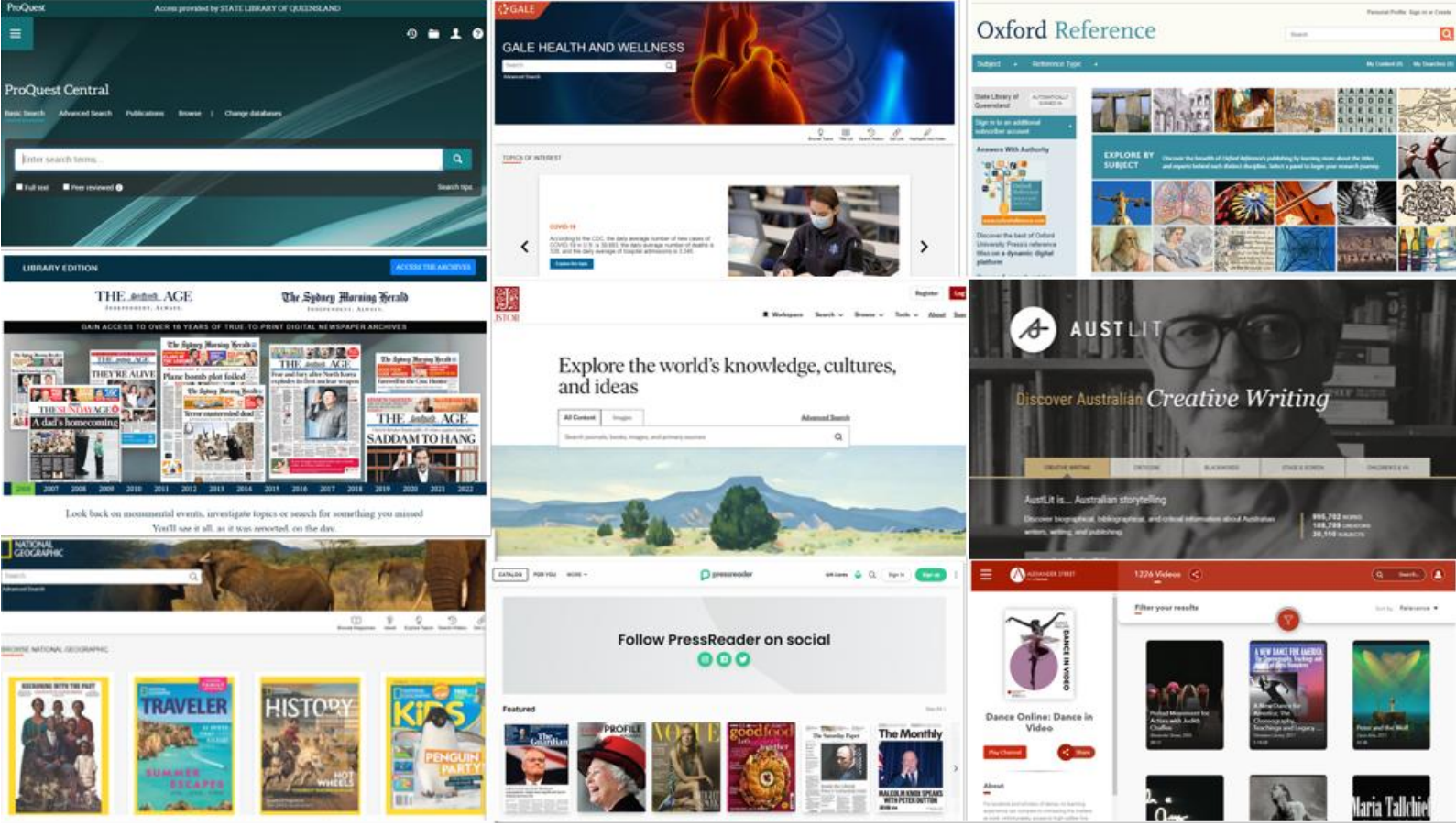



STATE LIBRARY
QUEENSLAND

# Year 10
# Physical Sciences

Cover: Selection of databases available through State Library, 2023.


**Date prepared:** 04 March 2026

**Copyright information for teachers**

This research guide is designed for individual use by students.

Please note, due to licensing arrangements, State Library's subscription databases and eBooks are for private research and study purposes only. They may not be used as teaching resources in classroom environments in schools or other educational institutions and students must not be required to access specific databases or eBooks as part of the curriculum.

Teachers can advise students on State Library's resources and encourage their use to help with their studies and research. Students are encouraged to access State Library's resources at school, but not during class time.

Teachers are most welcome to advise students what is available via State Library, and to encourage students to make use of eBooks and databases to help with their studies. It is permissible for a teacher to demonstrate the use of State Library's catalogue, and to point out how various online material can be accessed.

It is also permissible for students to access State Library's online resources at school – but this must not be during class time. An example of permitted use might be where students have a spare period when they work on assignments or homework, and they are accessing databases as private members of the State Library. Information about joining the State Library is here.

Please also note that State Library has digitised a range of material such as diaries, and out of copyright publications held in our collections. There are no restrictions on the use of this material as part of a teaching program – and no requirement to be a member of the library to use this material. They are easily findable searching our catalogue using the "SLQ digitised collections" option in the dropdown menu.

For other information visit Understanding copyright or contact State Library at copyright@slq.qld.gov.au

## Overview

As Queensland's leading research library, State Library is a great place to find information to complete your research-based assessments.

State Library's One Search catalogue is the gateway to an extensive suite of national and international journals, databases, eBooks, encyclopedias, newspaper archives, and collections of thousands of historical images, letters, artworks, diaries, and artefacts to interrogate as sources.

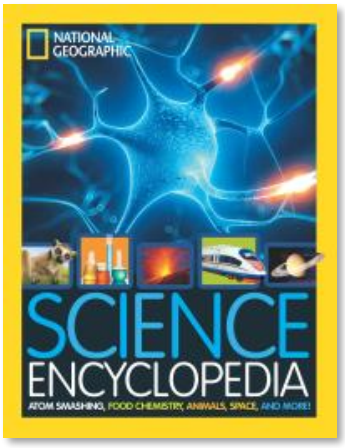
## Before you get started

Become a member of State Library of Queensland (it's free!).

Once you have joined State Library, log in to your account in One Search so you can use the links in this research guide to access the featured collection items.

You can search our OneSearch catalogue or begin exploring by clicking on some of the featured items contained in this research guide.

## E-Books





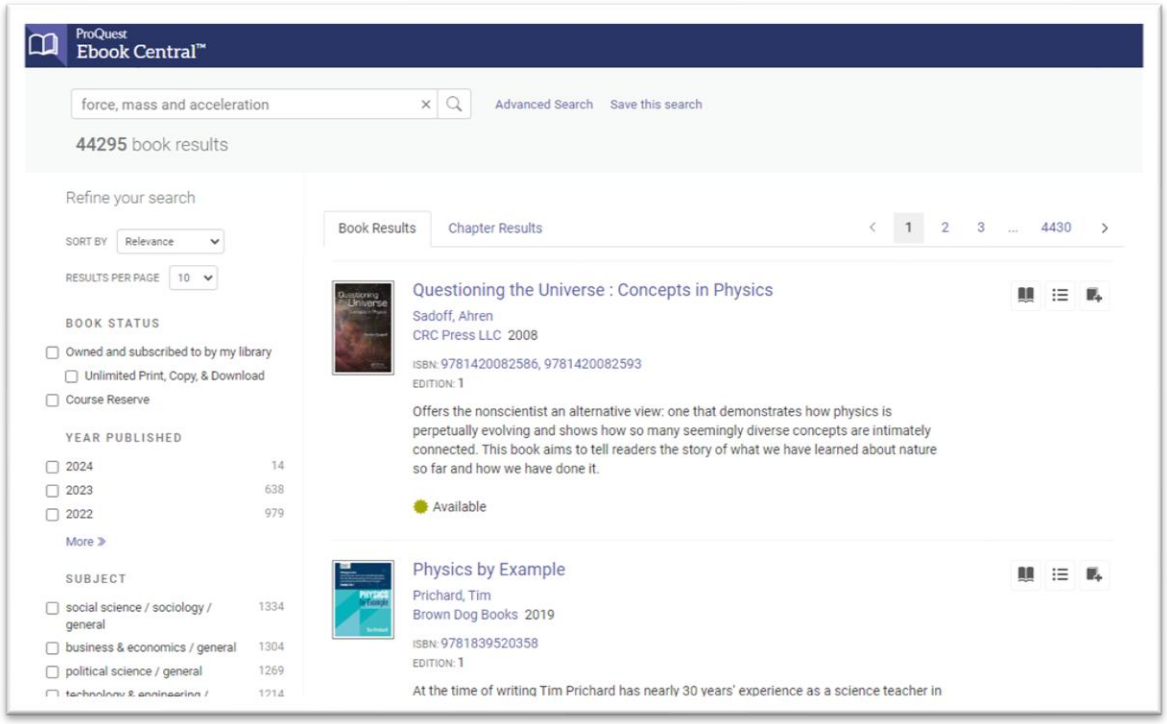
# Newton’s Laws of Motion

Investigate Newton’s laws of motion and quantitatively analyse the relationship between force, mass and acceleration of objects.

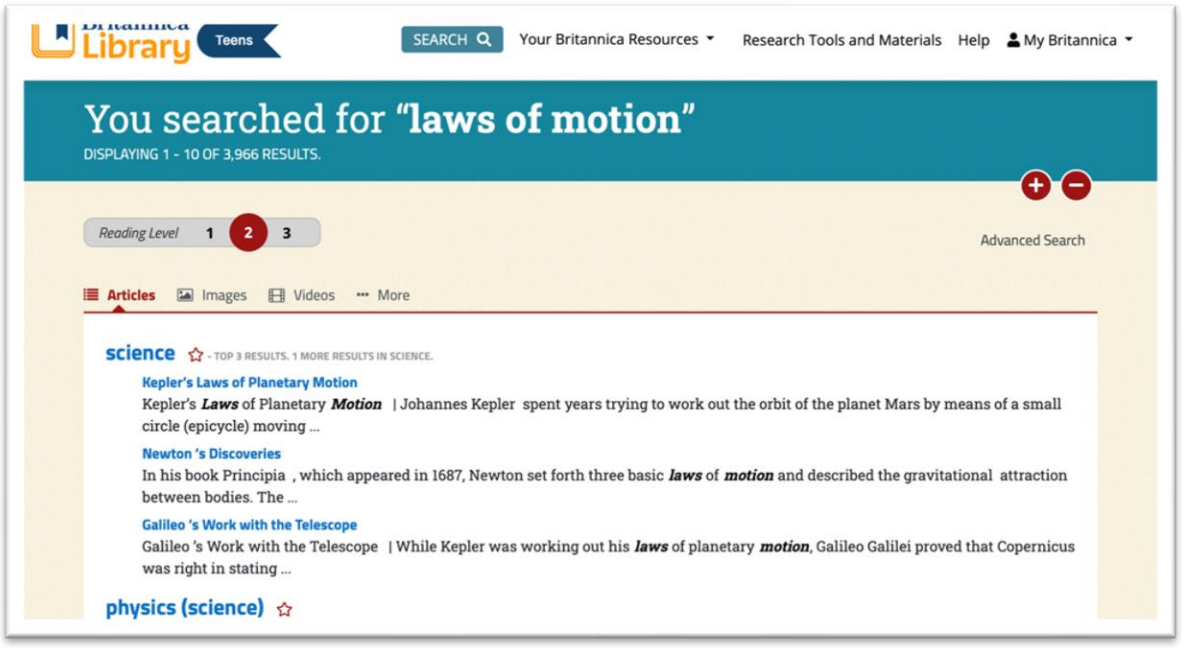
- Investigating a moving object to analyse and propose relationships between distance and time, speed, force and acceleration.
- Using mathematical representations including graphs and algebraic formulas to quantitatively relate force, speed, acceleration and mass.
- Investigating how First Nations Australians achieve an increase in speed and subsequent impact force through the use of spearthrowers and bows.
- Modelling how a change in net force acting on an object affects its motion and relating to the purpose of safety features such as seatbelts, airbags and crumple zones in vehicles.
- Investigating the application of Newton’s laws in sport and how these are applied to improve an athlete’s performance or safety.
- Constructing an argument, supported by data, to support lower speed limits near schools or for trucks in urban environments.
- Investigating how driverless vehicles apply Newton’s laws of motion to brake in time.

# Featured Databases

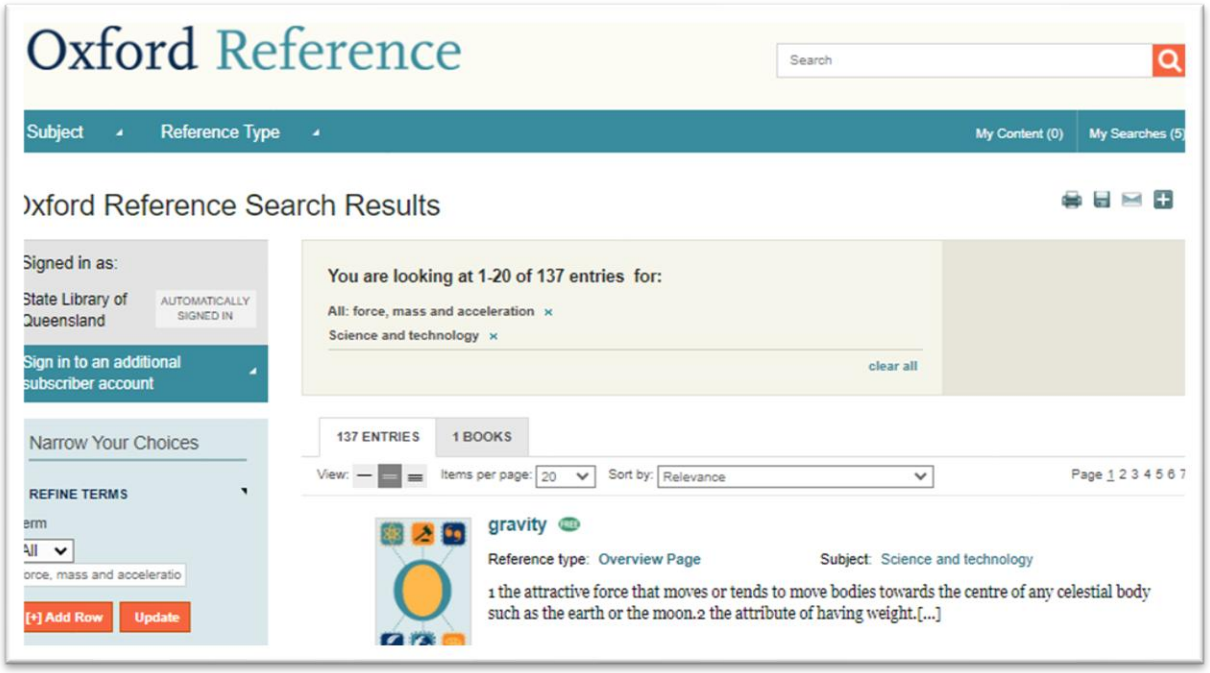
ProQuest EBook Central is a database of Ebooks free to access through your SLQ Membership.



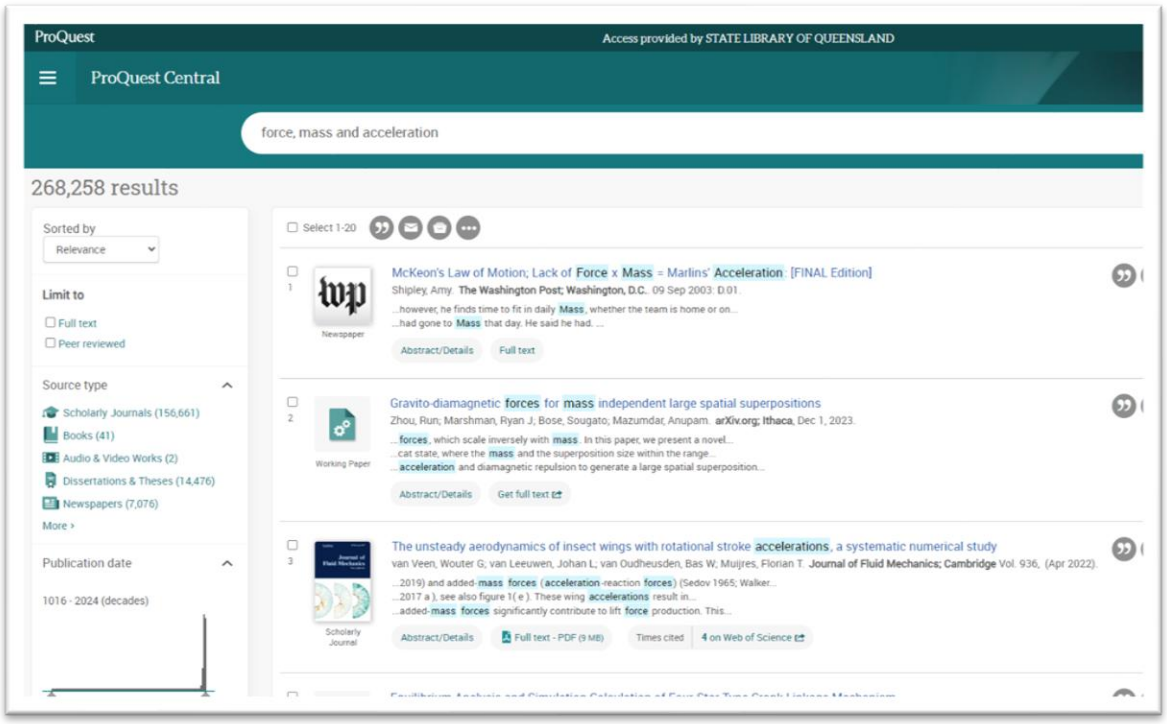

The Britannica Library has articles, images and more, with a selection of resources especially for teenagers.



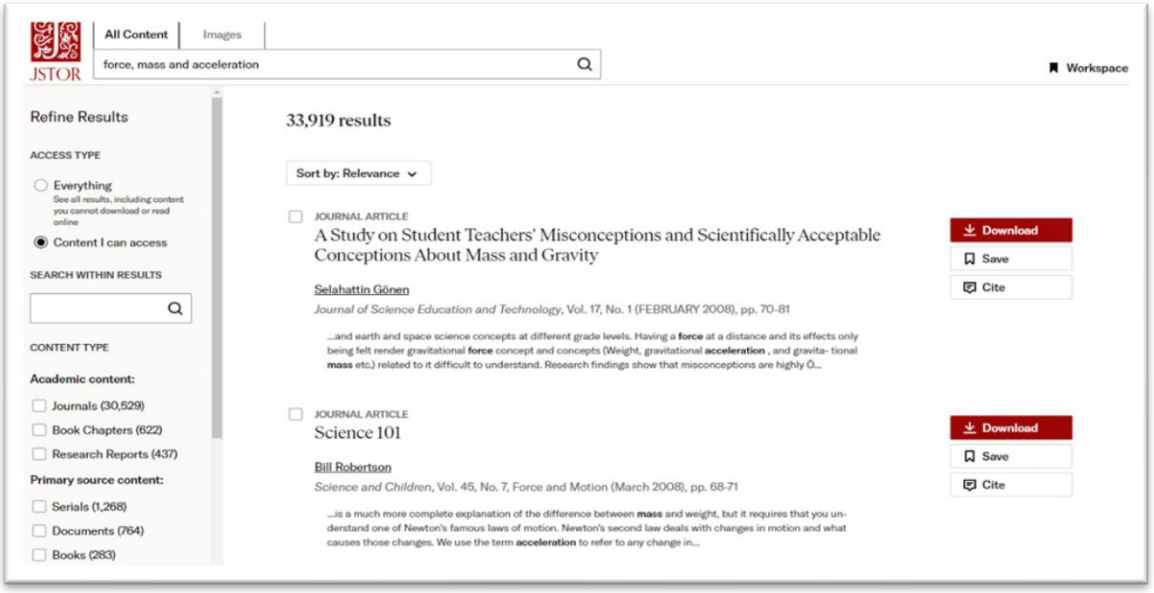
Oxford Reference spans 25 different subject areas, bringing together 2 million digitised entries across Oxford University Press's dictionaries, companions, and encyclopedias.



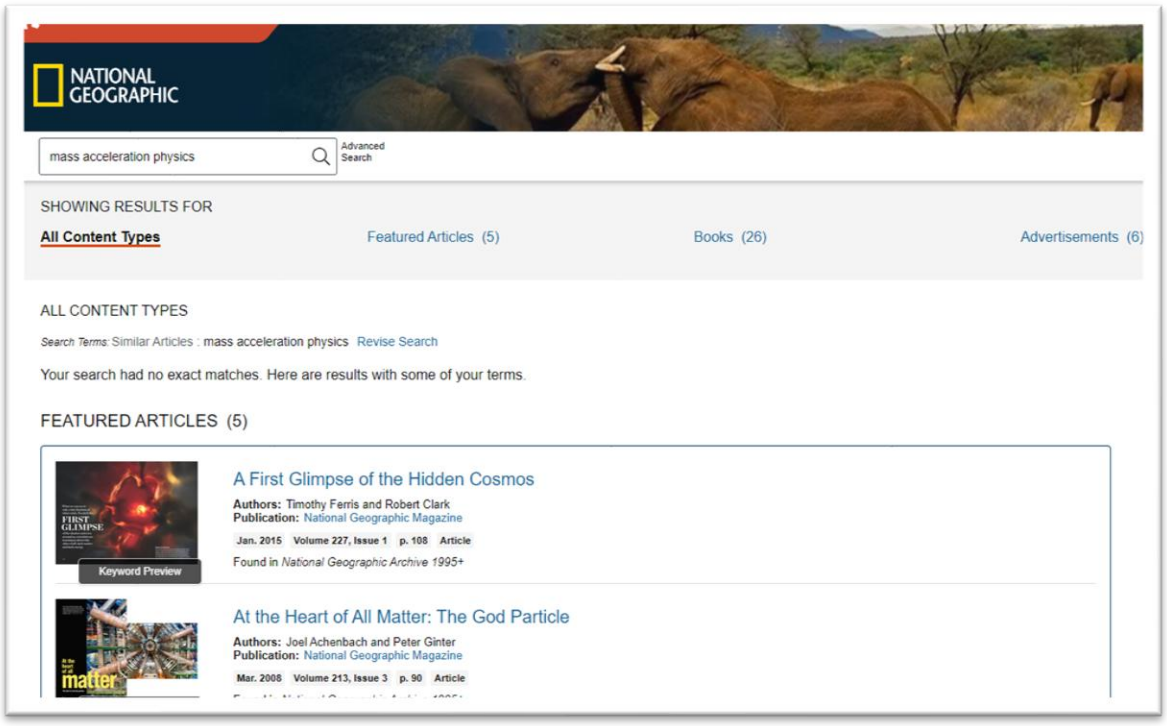

ProQuest Central brings together 47 databases across 175 subject areas, providing easy intuitive access to an incredibly broad and comprehensive range of content.



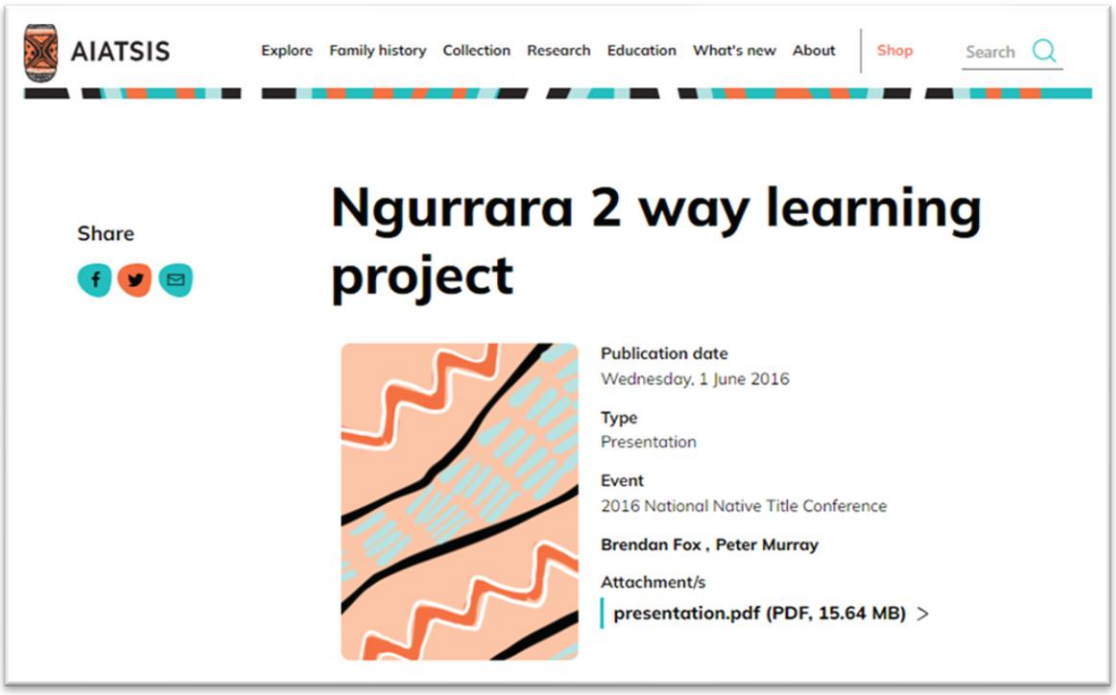
JSTOR provides access to more than 12 million scholarly journal articles and eBooks, and is especially good for primary sources.



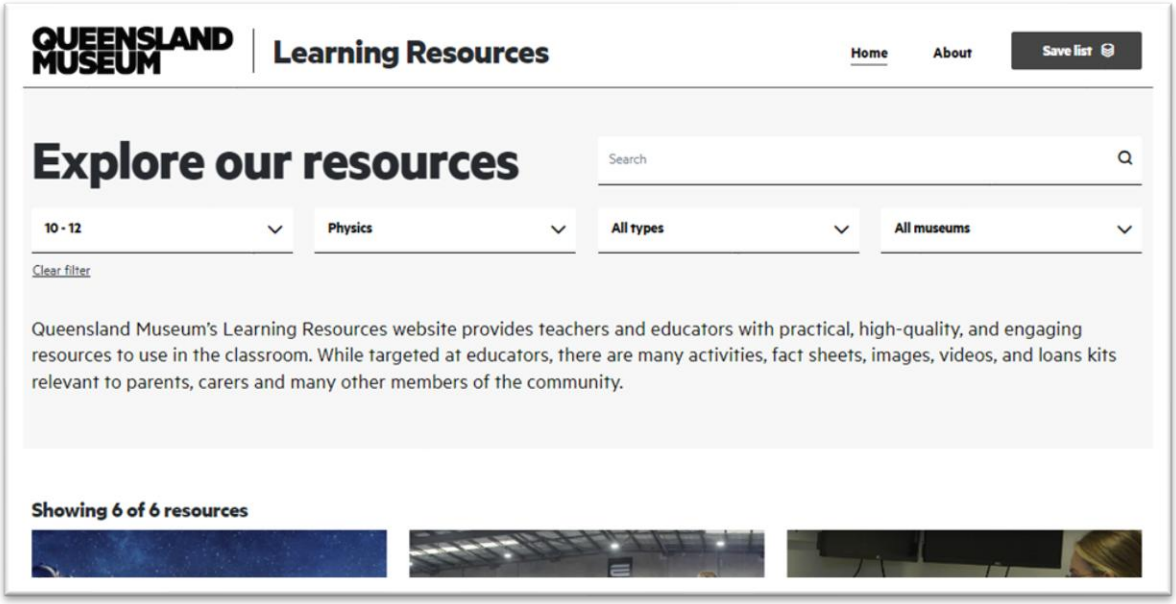

National Geographic Virtual Library is a powerful tool for research offering access to over 100+ years of magazines and hundreds of books, maps, videos, and images.



The Australian Institute Aboriginal and Torres Strait Islander Studies is a powerful tool for First Nations reading and research. Their online database and research projects can provide incredible insight into science from the First Nations perspective.




Queensland Museum provide Learning Resources website students with many activities, fact sheets, images, and videos.



### Borrow items.

Order items online through State Library's One Search catalogue and borrow items from State Library's collections when you visit us onsite.

### Ask a librarian

Ask one of State Library's expert librarians for help with your research inquiry.