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OF QUEENSLAND

# Year 8 Earth Sciences

Unit 1 – Plate Tectonics

Unit 2 – The Rock Cycle.

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

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**Date prepared:** 24 November 2023

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## 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.

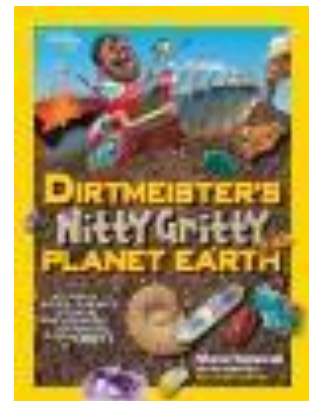
## Before you get started

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

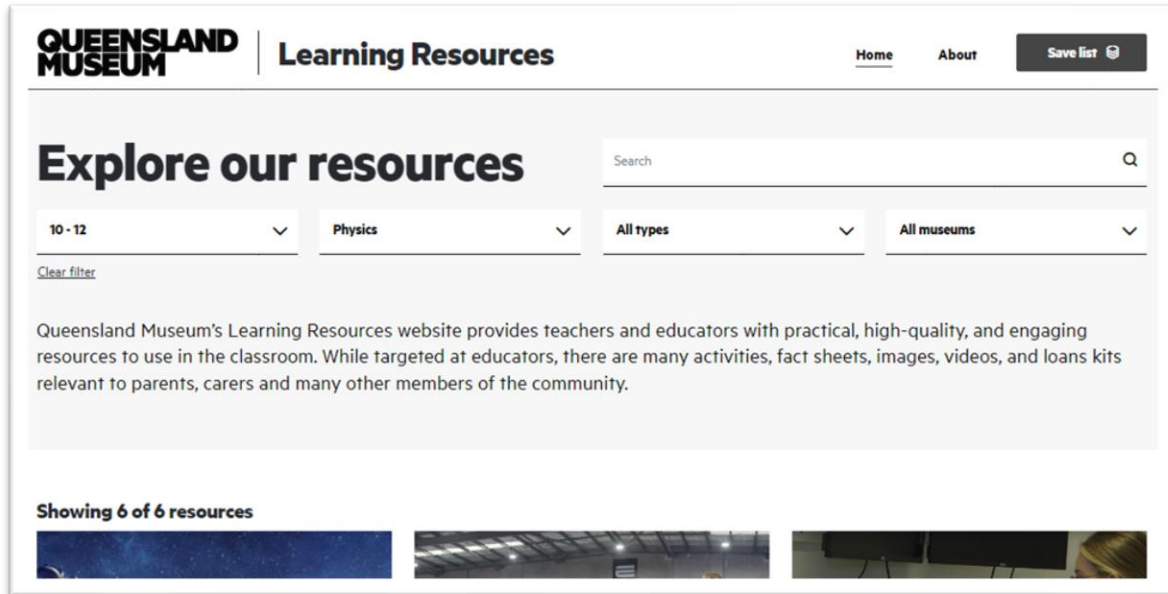
Once you have joined State Library, [log in](#) to your account in One Search so you can use the links in this research guide to access the featured collection items.

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

## E-Books



[Queensland Museum](#) provide Learning Resources website students with many activities, fact sheets, images, and videos.



**QUEENSLAND MUSEUM** | Learning Resources Home About Save list

## Explore our resources

Search

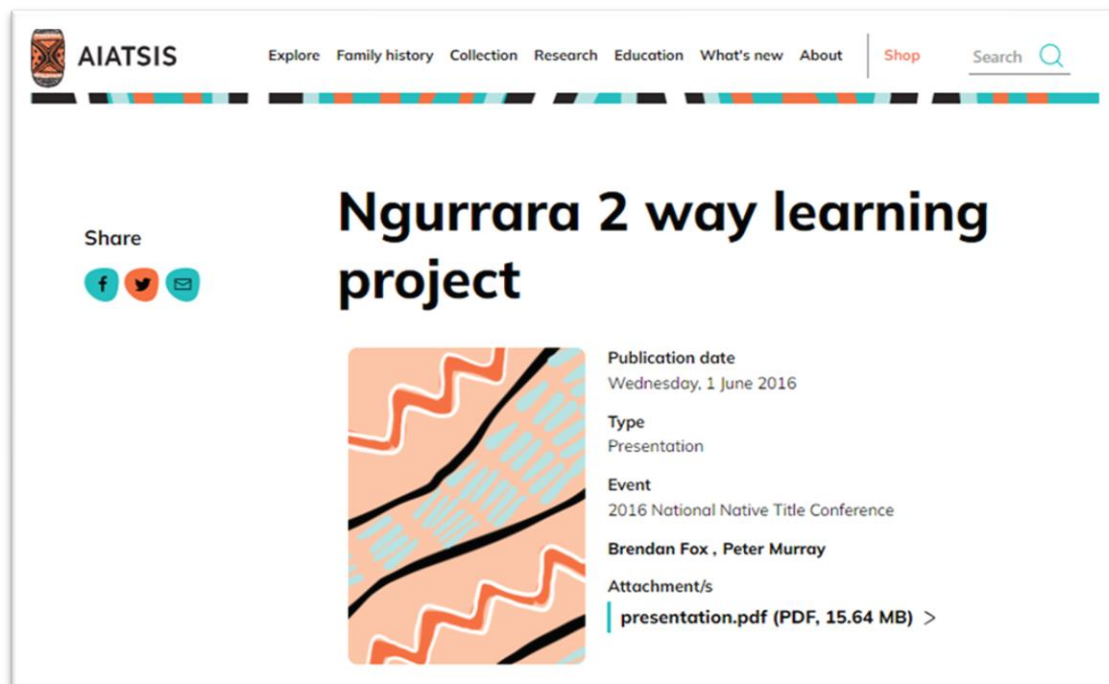
10 - 12 Physics All types All museums

[Clear filter](#)

Queensland Museum's Learning Resources website provides teachers and educators with practical, high-quality, and engaging resources to use in the classroom. While targeted at educators, there are many activities, fact sheets, images, videos, and loans kits relevant to parents, carers and many other members of the community.

Showing 6 of 6 resources

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.



**AIATSIS** Explore Family history Collection Research Education What's new About Shop Search

## Ngurrara 2 way learning project

Share

Publication date  
Wednesday, 1 June 2016

Type  
Presentation

Event  
2016 National Native Title Conference

Brendan Fox , Peter Murray

Attachment/s  
[presentation.pdf \(PDF, 15.64 MB\)](#)

# Plate Tectonics

Investigate tectonic activity including the formation of geological features at divergent, convergent and transform plate boundaries and describe the scientific evidence for the theory of plate tectonics

- Examining patterns of earthquake and volcanic activity over time and proposing explanations.
- Evaluating the impact of tectonic events on human populations and examining engineering solutions designed to reduce the impact.
- Modelling interactions at plate boundaries.
- Investigating the relative significance of different forces involved in tectonic plate movement including slab pull, ridge push and convection.
- Relating the extreme age and stability of a large part of the Australian continent to its plate tectonic history.
- Constructing a timeline of evidence to show the development of the theory of plate tectonics.
- Exploring how geologist and oceanographic cartographer Marie Tharp's topographic maps of the Atlantic ocean floor provided support for the acceptance of the theory of plate tectonics.
- Researching First Nations Australians' cultural accounts that provide evidence of earthquakes and volcanoes.

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

The screenshot shows the Oxford Reference search results page. At the top, the 'Oxford Reference' logo is on the left, and a search bar is on the right. Below the logo, there are navigation tabs for 'Subject' and 'Reference Type', and user account information for 'My Content (0)' and 'My Searches (10)'. The main heading is 'Oxford Reference Search Results'. On the left, there is a sidebar with 'Signed in as: State Library of Queensland' and a 'Narrow Your Choices' section with 'REFINE TERMS' and a dropdown menu for 'Term' set to 'All'. The main content area shows 'You are looking at 1-20 of 571 entries for: All: plate tectonics'. It includes a 'Did you mean' suggestion for 'tectonic plates' and a 'clear all' link. Below this, there are filters for '571 ENTRIES' and '2 BOOKS', and a 'View' section with 'Items per page: 20' and 'Sort by: Relevance'. The 'OVERVIEW' section for 'plate tectonics' is visible, with the subject 'Science and technology, Earth Sciences and Geography' and a brief description: 'The concept that the Earth's lithosphere consists of a number of distinct oceanic and continental plates, whose relative positions alter over the course of geological time, driven by ...'.

The [Britannica Library](#) has articles, images and more, with a selection of resources especially for teenagers.

The screenshot shows the Britannica Library search results page. At the top, the 'Britannica Library' logo is on the left, and a search bar is on the right. Below the logo, there are navigation tabs for 'Teens', 'Your Britannica Resources', 'Research Tools and Materials', 'Help', and 'My Britannica'. The main heading is 'You searched for "plate tectonics"'. Below this, there is a 'DISPLAYING 1 - 10 OF 41 RESULTS.' section. On the left, there is a 'Reading Level' section with buttons for '1', '2', and '3', where '2' is selected. On the right, there is an 'Advanced Search' link. Below the reading level, there are tabs for 'Articles', 'Images', 'Videos', and 'More'. The main content area shows a list of results. The first result is 'plate tectonics (geology)' with a star icon. Below it, there is a brief description: 'plate tectonics | The modern theory of the motions of Earth's outer layers is called plate tectonics. It provides a framework for understanding many of ...'. The second result is 'Earth (planet, third from the Sun)' with a star icon and a sub-heading 'Plate Tectonics'. Below it, there is a brief description: 'Plate Tectonics | A number of distinctive features on Earth beg for an explanation. Earthquakes and volcanoes are concentrated in certain regions of the world ...'. The third result is 'Water cycle' with a star icon and a brief description: 'As the various plates of the lithosphere move, the seafloor on one plate is sometimes pushed against the edge of a continent on another. The denser oceanic crust is forced under ...'.

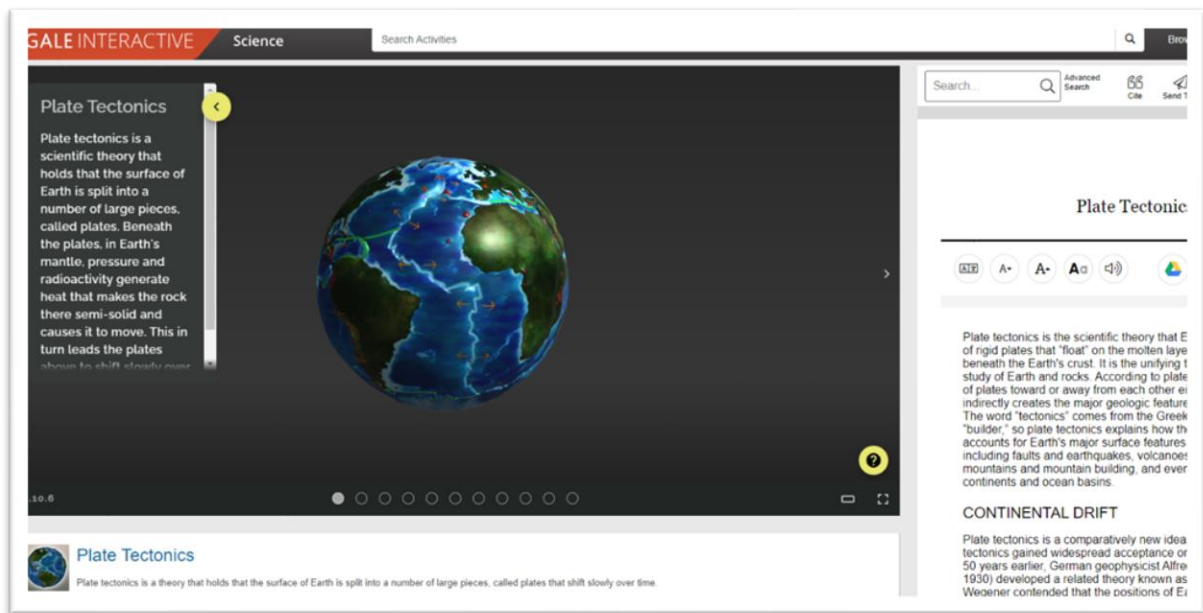
[National Geographic Virtual Library](#) is a powerful tool for research offering access to over 100+ years of magazines and hundreds of books, maps, videos, and images.

The screenshot shows the National Geographic Virtual Library search results for the keyword 'tectonics'. At the top, there is a banner image of elephants in a savanna. Below the banner is a search bar with 'Advanced Search' and navigation icons for 'Browse Magazines', 'About', 'Explore Topics', and 'Search History'. The results are categorized by type: Types, Featured Images (1), Videos (2), Featured Articles (40), Books (11), Maps (5), Map Supplements (20), and Brief Articles (20). The 'Featured Articles' section is highlighted, showing a result for 'Trailblazers' from National Geographic Magazine, published on Sunday, Mar. 2020, Volume 237, Issue 03, p. [115]. The article is found in the National Geographic Archive 1995+. To the right, there are filters for 'Subjects', 'Publication Title', 'Document Type', and 'Search Within'. A 'TOPIC FINDER' section is also visible, along with a 'TERM FREQUENCY' section showing 'Ruby'.

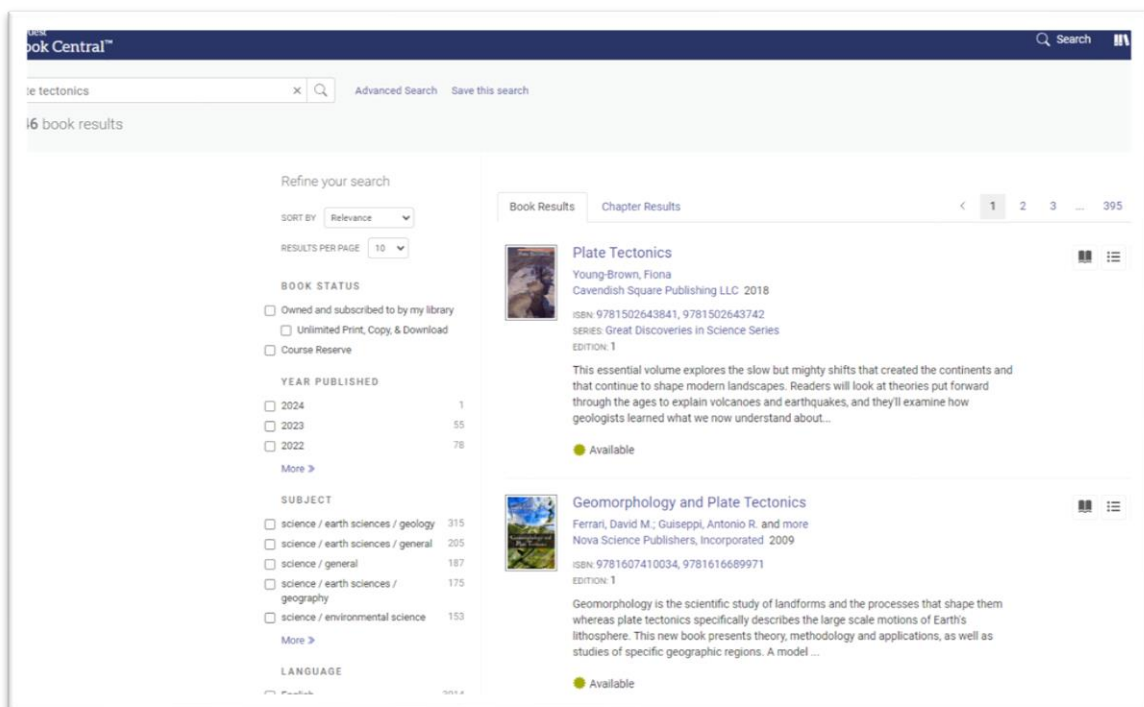
[JSTOR](#) provides access to more than 12 million scholarly journal articles and eBooks, and is especially good for primary sources.

The screenshot shows the JSTOR search results for the keyword 'plate tectonics'. The search bar at the top shows 'plate tectonics' and the search icon. The results are sorted by 'Relevance' and show 12,334 results. The first result is a 'JOURNAL ARTICLE' titled 'PLATE TECTONICS' by John F. Dewey, published in Scientific American, Vol. 226, No. 5 (May 1972), pp. 56-72. The article abstract discusses the relationship between plate tectonics and the tectonics of memory. The second result is a 'JOURNAL ARTICLE' titled 'plate tectonics' by Alvin Greenberg, published in The Georgia Review, Vol. 44, No. 3 (Fall 1990), p. 409. The article abstract discusses Greenberg's plate tectonics in the tectonics of memory. Both results have 'Download', 'Save', and 'Cite' buttons.

[Gale Interactive: Science](#) provides a comprehensive view of the most-studied science subjects. Authoritative, high-quality digital content is paired with interactive 3D models.



[ProQuest Ebook Central](#) Compiles a library of topic specific ebooks for you to access free through your SLQ membership.





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

The screenshot shows the ProQuest Central search interface. At the top, the search term 'plate tectonics' is entered. Below the search bar, it indicates '524 results'. On the left side, there are filters for 'Sorted by' (set to Relevance), 'Limit to' (Full text, Peer reviewed), 'Source type' (Scholarly Journals: 46,711; Books: 7; Audio & Video Works: 1; Dissertations & Theses: 1,160; Newspapers: 8,470), and 'Publication date' (53 - 2024 (decades) with a bar chart). The main results area shows three items:

- 1. **OUR PATCHWORK PLANET: The Story of Plate Tectonics** (Trade Journal, Kirkus Reviews; Austin Iss. 8, (Apr 15, 1995)). Description: "...A comprehensive introduction to plate tectonics, written in a... of tectonic plates, of continents and mountains, and the various ways of dealing...". Options: Abstract/Details, Full text.
- 2. **PLATE TECTONICS: The Insiders' History of the Modern Theory of the Earth** (Trade Journal, Kirkus Reviews; Austin Iss. 23, (Dec 1, 2001)). Description: "...Firsthand reports of the birth of modern plate tectonics, the once... tectonics;" would join the revolution only much later.) Though many of the... theory of the existence of the Juan de Fuca plate), Neil Opdyke (who studied...". Options: Abstract/Details, Full text.
- 3. **Plate tectonics in the twenty-first century** (Scholarly Journal, Zheng, Yong-Fei. Science China. Earth Sciences; Dordrecht Vol. 66, Iss. 1, (Jan 2023): 1-40). Description: "...tectonics through lithospheric subduction... remote effect. Thus, plate tectonics is recognizable in rock records produced by... tectonics are associated with a series of plate divergent-convergent coupling...". Options: Abstract/Details, Full text - PDF (3 MB), Times cited: 14 on Web of Science, 297 References.

At the bottom, a partial result is visible: "It changed how we understand the world: A revolutionary theory of plate tectonics came out of Newfoundland - but that isn't all".

# The Rock Cycle

Describe the key processes of the rock cycle, including the timescales over which they occur, and examine how the properties of sedimentary, igneous and metamorphic rocks reflect their formation and influence their use.

- Comparing the observable properties of different types of rocks and identifying them using a provided dichotomous key.
- Exploring the major processes of the rock cycle including weathering, erosion, deposition, melting, crystallisation, uplift, heat and pressure in the formation of different types of rocks.
- Analysing the role of forces and heat energy in the formation of different types of rocks and comparing how quickly or slowly different processes can occur.
- Examining fossil evidence, such as body, trace or opalised fossils, to predict how and when a rock was formed.
- Explaining the uses of different types of rocks with reference to their properties and formation.
- Exploring the traditional geological knowledges of first nations australians that are used in the selection of different rock types for different purposes.
- Investigating how first nations australians have used quarrying to access rocks for use as or production of everyday objects such as grindstones, hammerstones, anvils and cutting tools.
- Exploring how the mining of ores and minerals impacts on local environments and examining environmental rehabilitation initiatives.

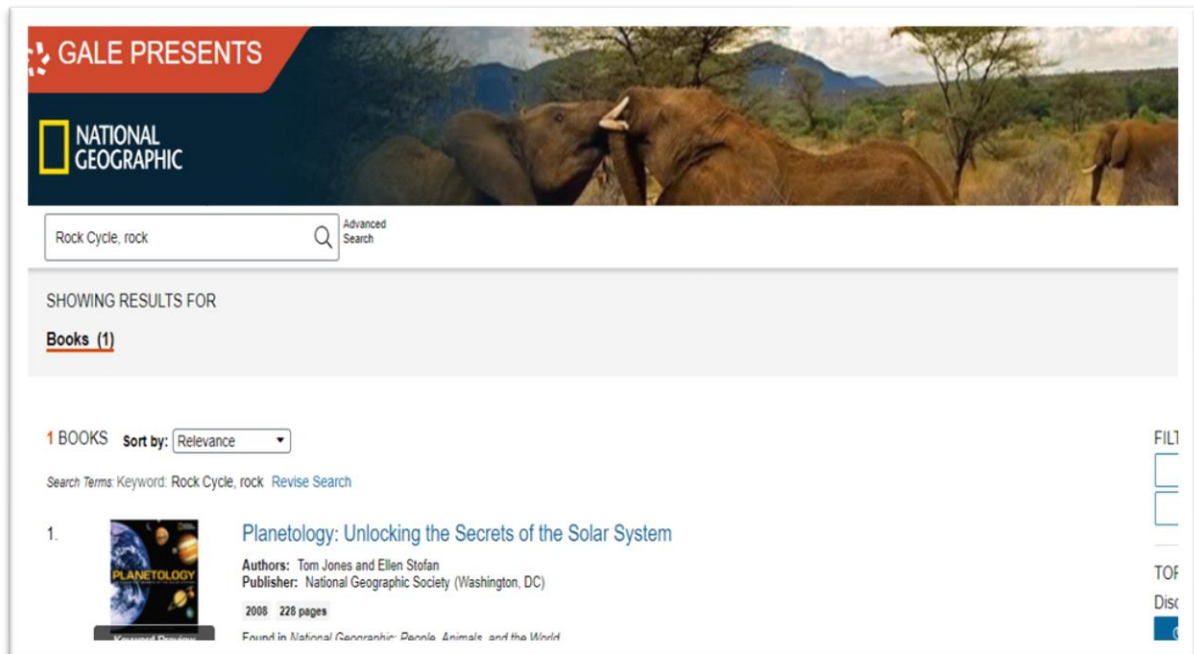
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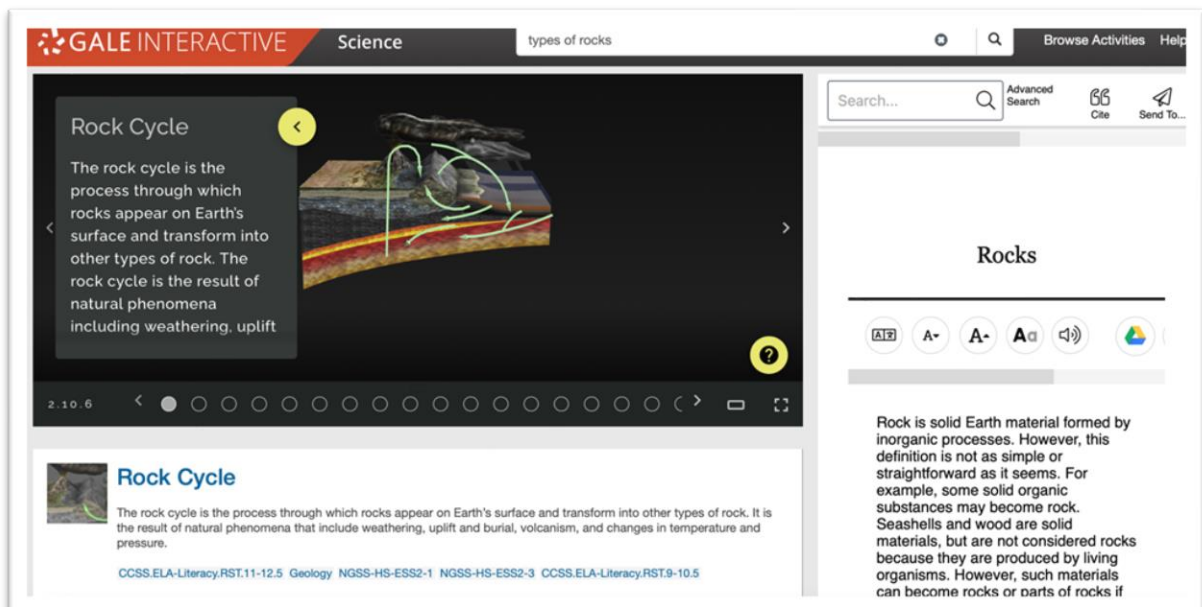
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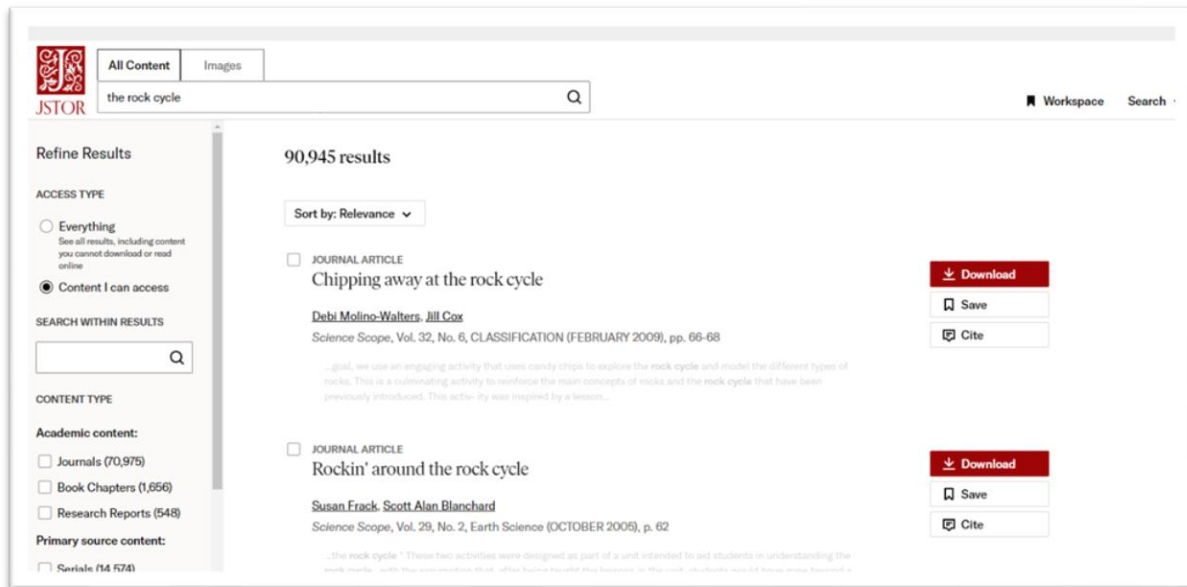
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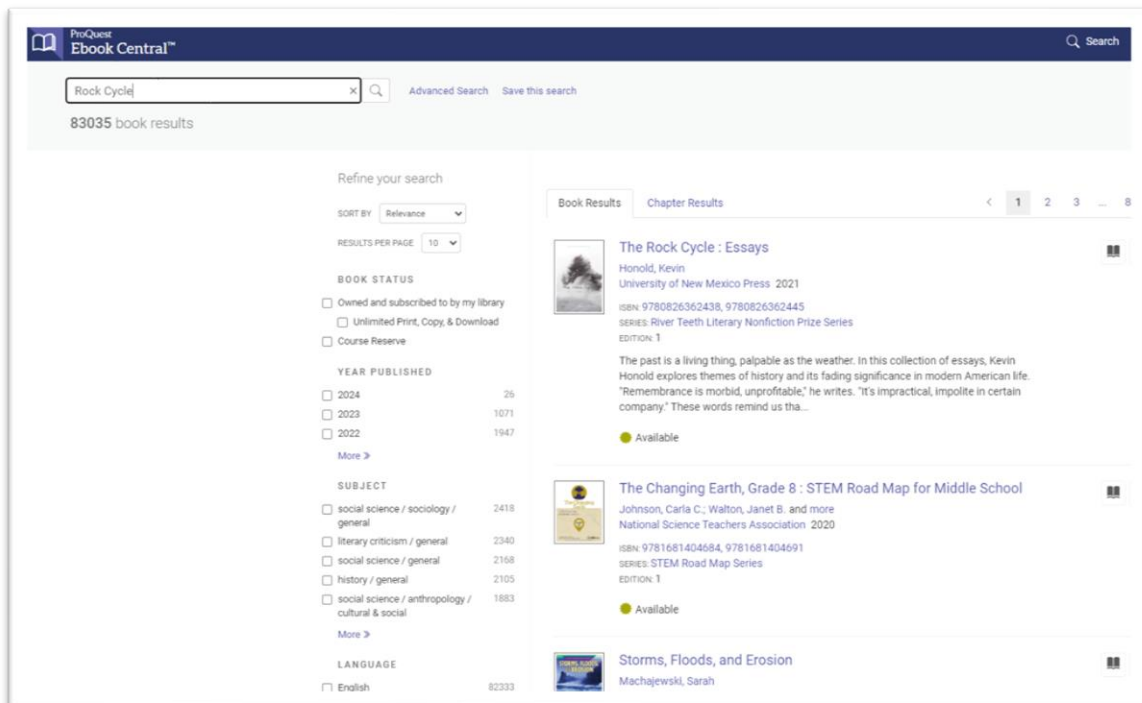
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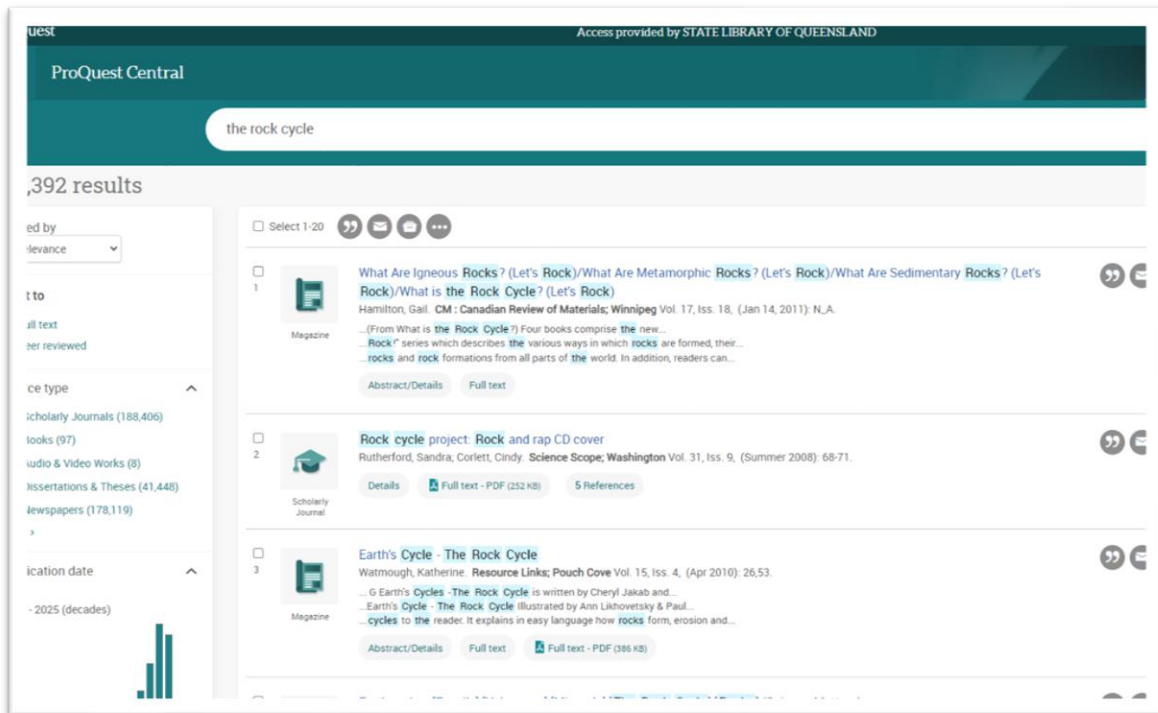
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