Strategies for Engaging with Teach the Earth Online Resources

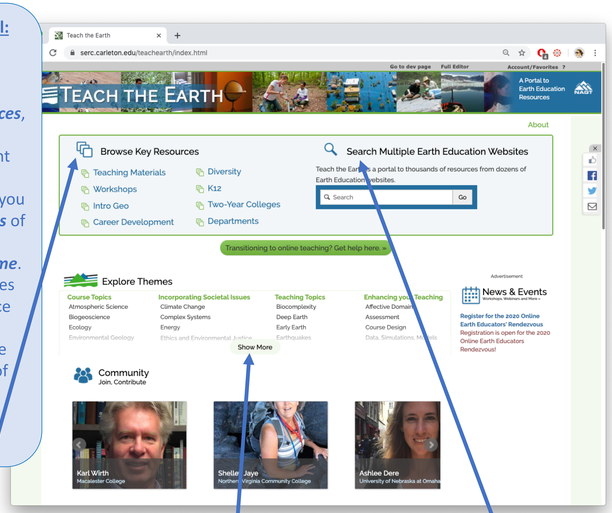
The Teach the Earth Website Committee: : J. Wenner, *chair*, S. Fortner, S. Fox, K. Fredrick, A. Haveles, B. Mason, M. Holzer, P. Resor, L. White.

Finding what you need

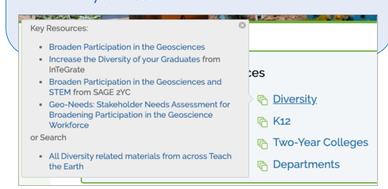
Teach the Earth Portal: There are three main ways to find Earth education resources.

- Browse ***key resources***, like workshops & career development
- If you know what you're looking for, you can ***search all parts*** of Teach the Earth
- Or, ***explore by theme***.

The portal also provides a link to the geoscience education community where you can join the National Association of Geoscience Teachers (NAGT) or contribute your own activities.



Browse Key Resources: Materials on Teach the Earth are subdivided into distinct *types* of resources. Clicking on a resource type will produce a pop-up with more specific places to find what you need.



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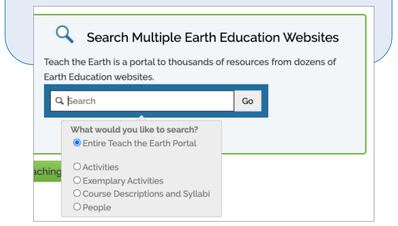
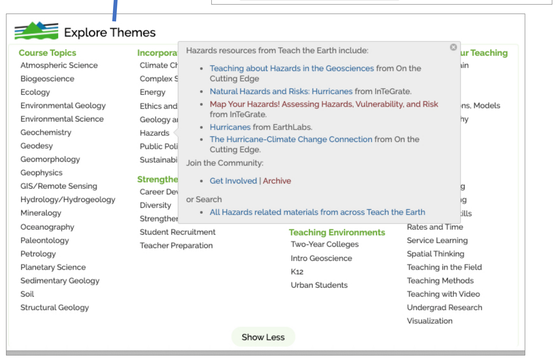
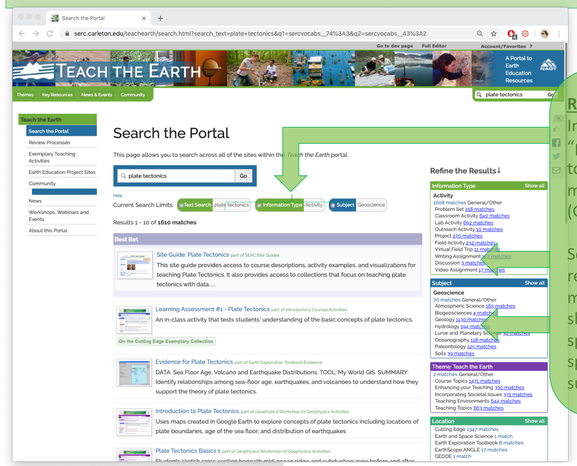


Explore Themes: Find sites and activities related to specific topics, teaching ideas, and other themes within the Geosciences. Clicking on a topic in this section of the portal opens a pop-up, with resources, community and search links.



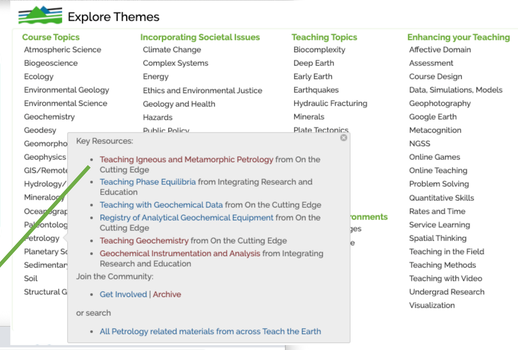
Refining what you find

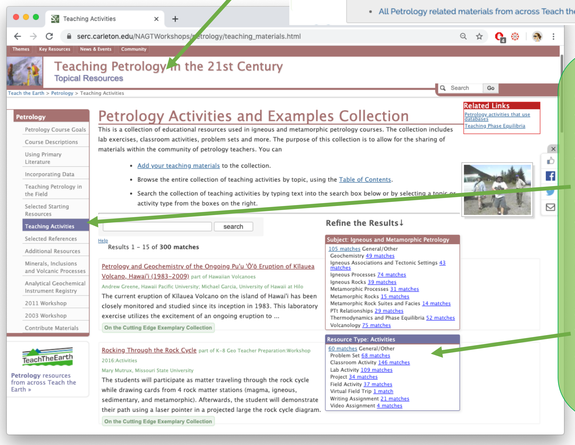


Refining your portal search: In a search for materials (e.g., "plate tectonics), it is possible to refine further by type of material (Activity), subject (Geoscience), etc.

Searches can be further refined using the navigation menus along the right side, showing, in the example, specific types of activities, and specific geoscience subdisciplines.

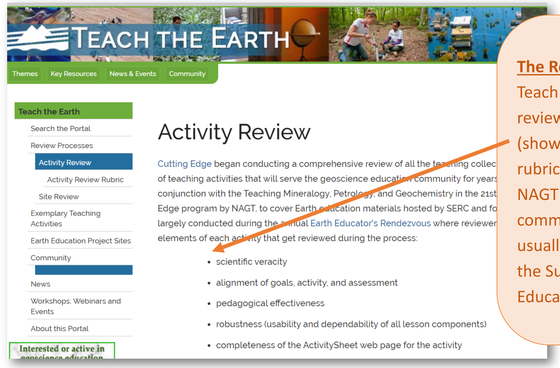
Teach the Earth Themes: From the "Explore Themes" portion of the portal, you will find Key Resources – websites with your chosen theme, a link to join the community – discussions and list-serves, and a search of all related activities within Teach the Earth.





Exploring sites from pop-ups: Clicking on a link in a pop-up takes you to a website within Teach the Earth focused on the topic you chose. The navigation on the left allows you to discover the areas of the site, including teaching activities and links to other materials. You can refine your activity search by specific subject or resource type using the menus to the right of the activities. In topical sites, Exemplary Activities are promoted.

Contributing activities that review well



The Review Process: Each activity on Teach the Earth is evaluated by two reviewers for **five review criteria** (shown in the bullets at left) using a rubric. Reviews are organized by NAGT appointed editors from the community and conducted online, usually during a "Review Camp" on the Sunday prior to the annual Earth Educators' Rendezvous.

Reviewed activities are designated in one of four categories:

- **Exemplary:** the best of the best, requiring that 3 of 5 review elements ranked exemplary
- **Pass:** reviewed favorably but require modifications to rise to exemplary (authors may modify to rank exemplary)
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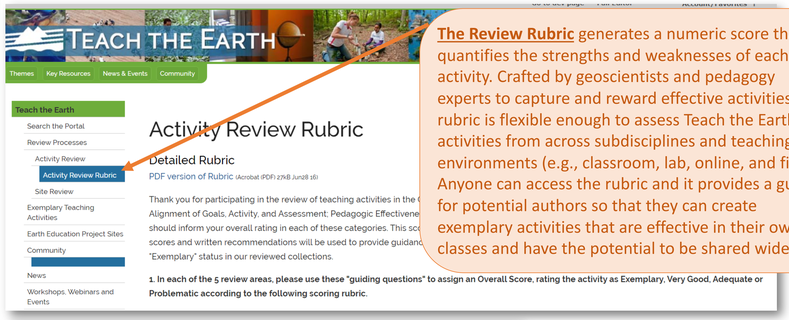

The Review Rubric generates a numeric score that quantifies the strengths and weaknesses of each activity. Crafted by geoscientists and pedagogy experts to capture and reward effective activities, the rubric is flexible enough to assess Teach the Earth activities from across subdisciplines and teaching environments (e.g., classroom, lab, online, and field). Anyone can access the rubric and it provides a guide for potential authors so that they can create exemplary activities that are effective in their own classes and have the potential to be shared widely.

Contribute your own activity! Teach the Earth provides a venue for you to share successful teaching activities. Like the rubric, the "Contribute Activity" form provides a guide for producing exemplary teaching materials to share on Teach the Earth. The form guides you to align goals and objectives with topics and courses from across the geoscience spectrum. Your contributed resources can boost your effectiveness as well as that of colleagues beyond your own institution!

Teach the Earth (https://serc.carleton.edu/teachearth/index.html) is a portal to thousands of resources from dozens of Earth education websites.

Finding what you need

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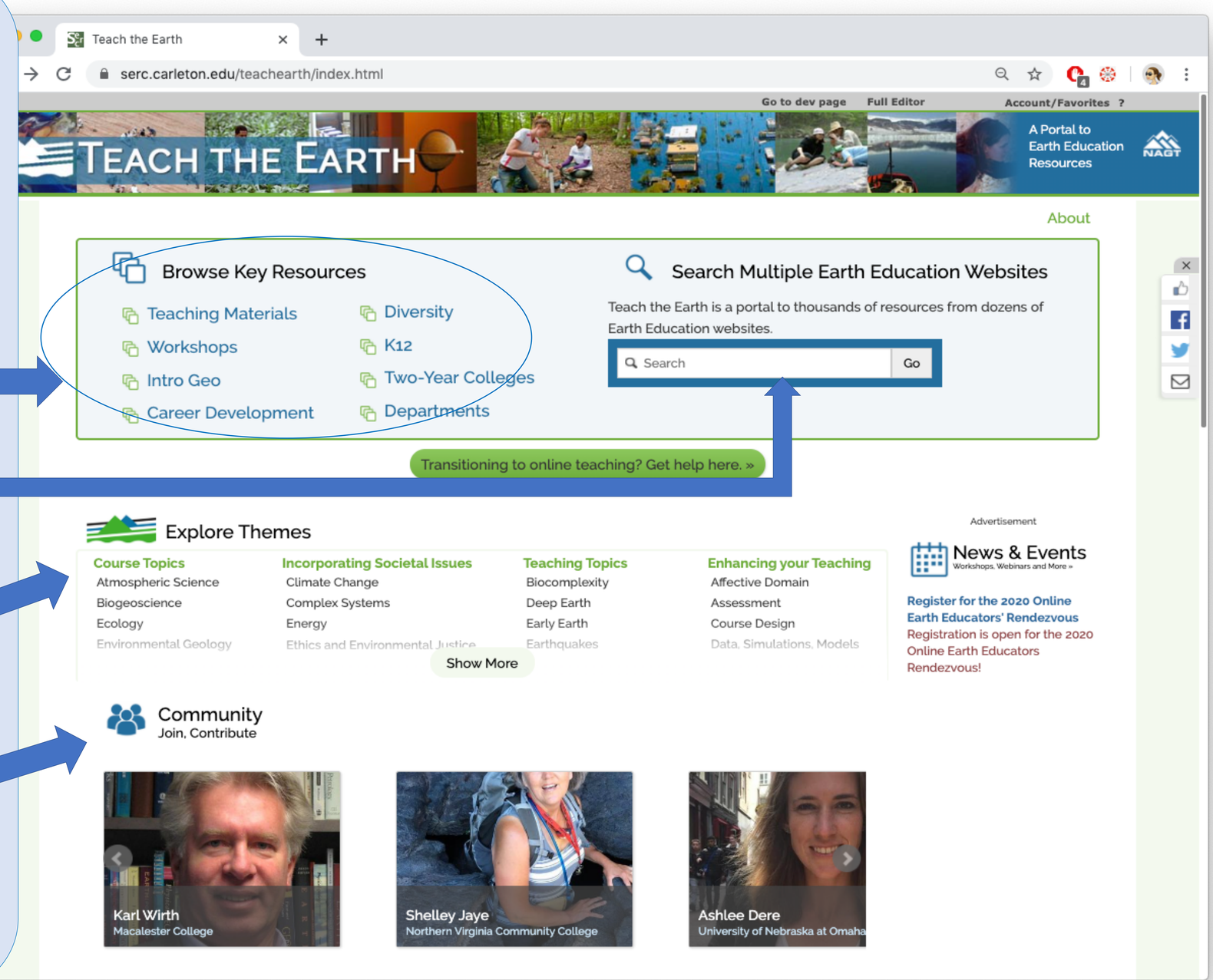
From the portal, there are three main ways to find Earth education resources.

- You can browse key resources, like workshops & career development
- If you know what you're looking for, you can search all parts of Teach the Earth
- Or, you can explore by theme – course or issue or teaching topic.

The portal also provides a link to the geoscience education community where you can join NAGT or contribute your own activities.



You can explore the Teach the Earth portal (shown above) on your own!

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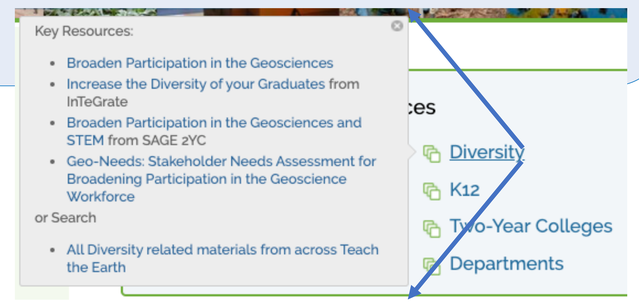

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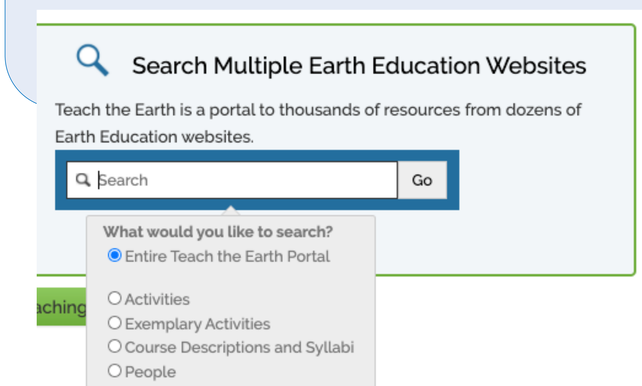

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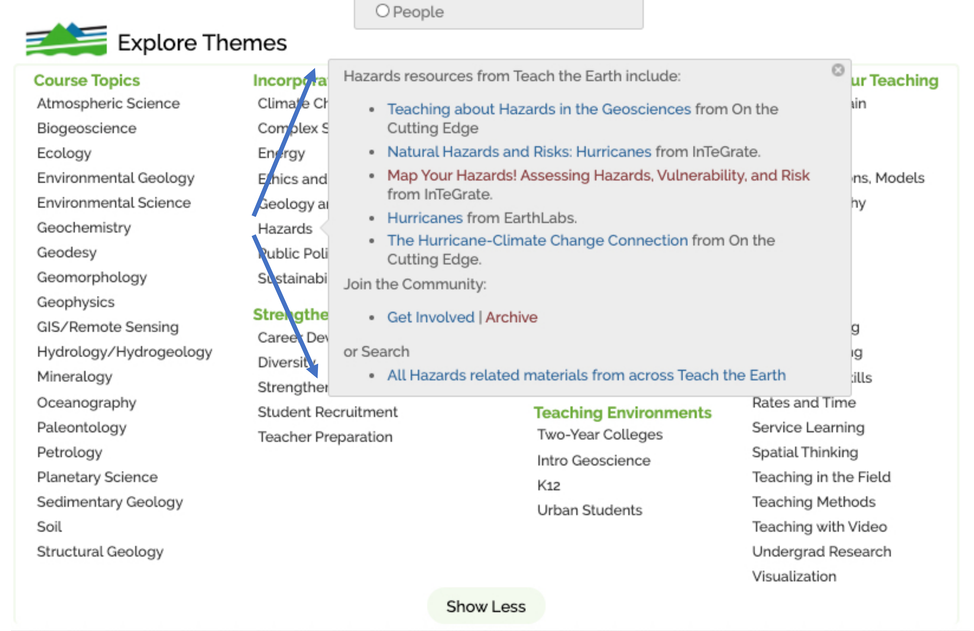
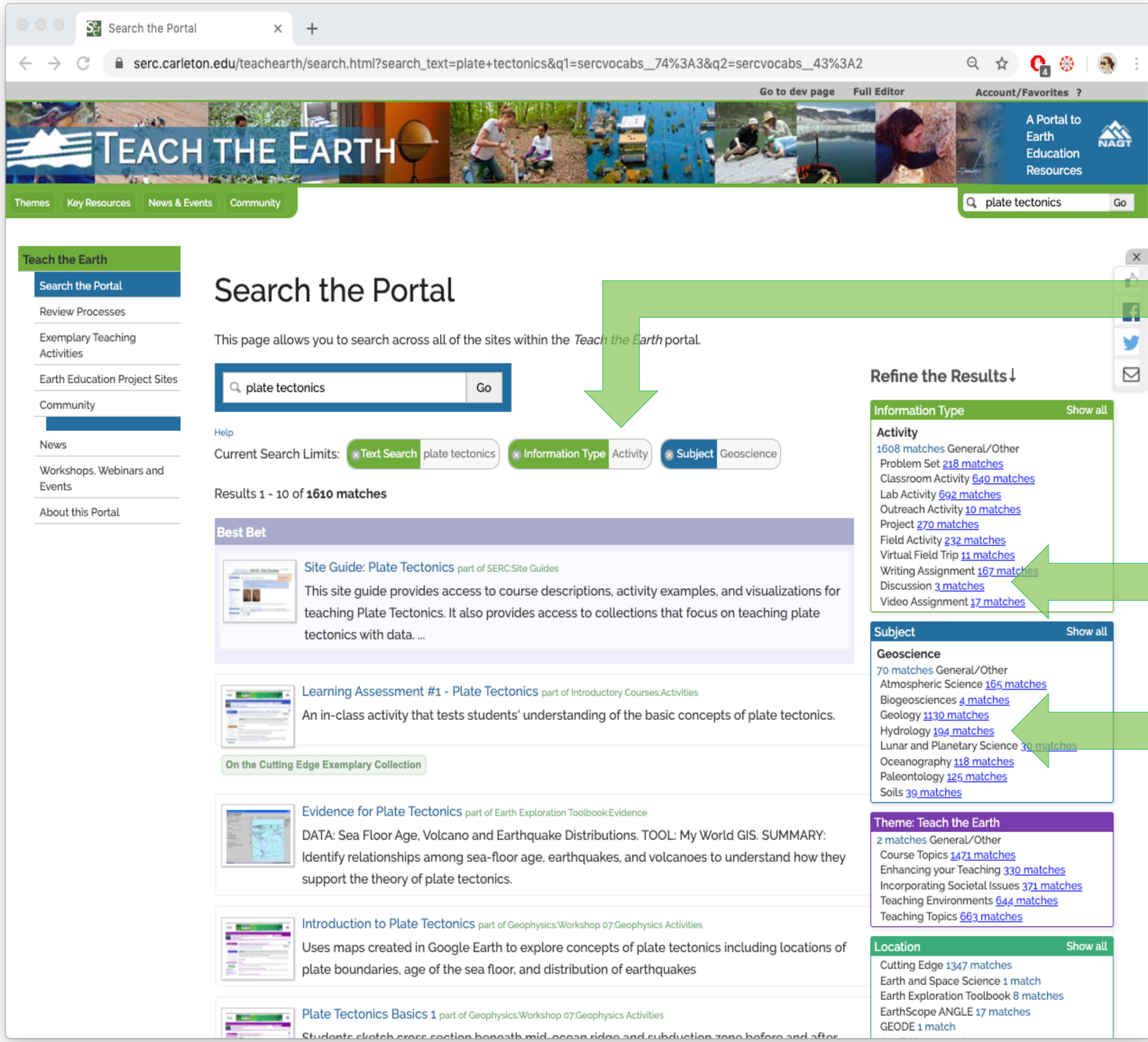


You can find all of these menus in the Teach the Earth portal

Refining what you find



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This page can be explored here: https://serc.carleton.edu/teachearth/search.html?search_text=plate+tectonics&q1=sercvocabs__74%3A3

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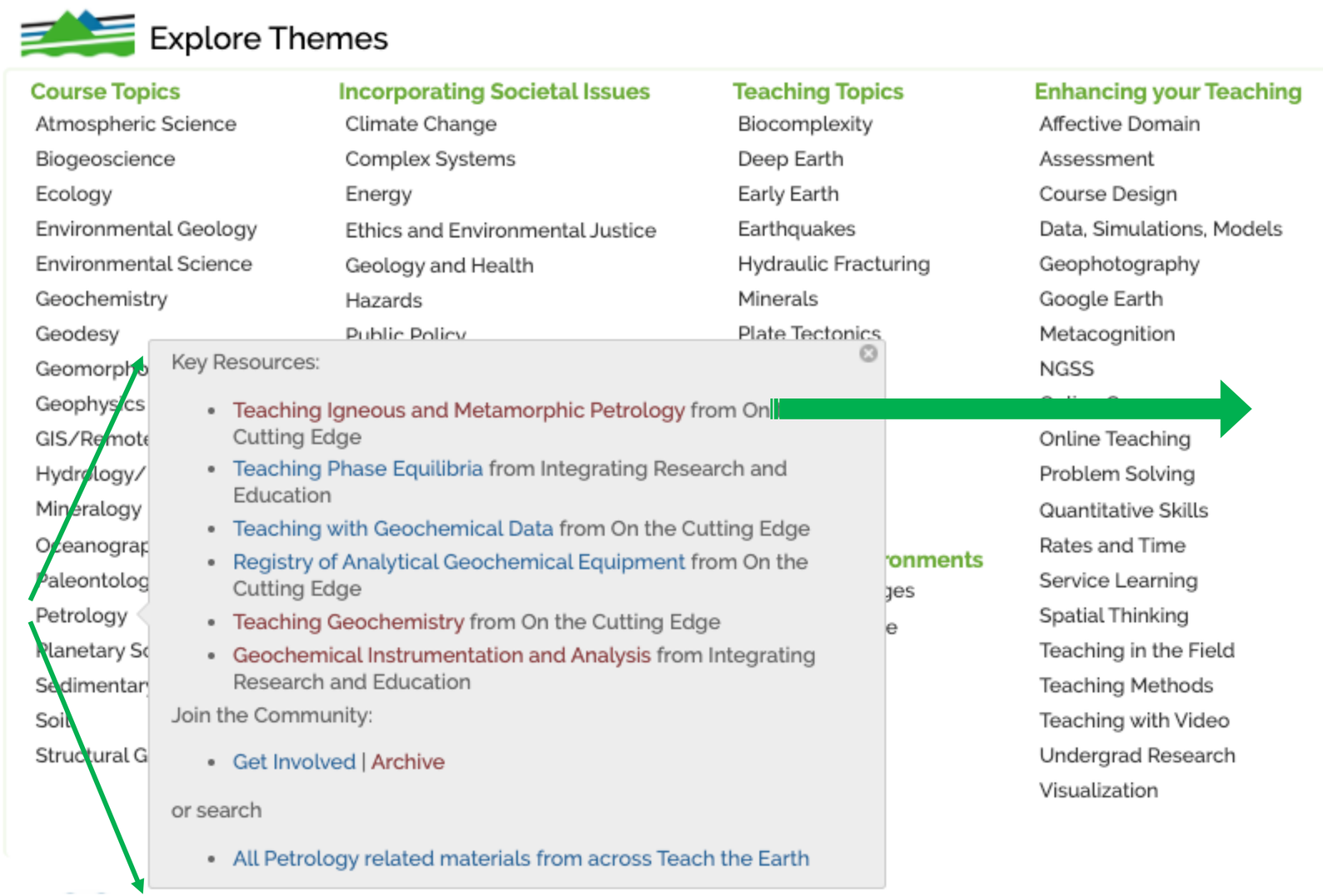

This menu can be found in the middle of the Teach the Earth portal (click on "Show More")

Refining what you find

Teaching Activities

serc.carleton.edu/NAGTWorkshops/petrology/teaching_materials.html

Themes | Key Resources | News & Events | Community

Teaching Petrology in the 21st Century
Topical Resources

Teach the Earth > Petrology > Teaching Activities

Search Go

Petrology
- Petrology Course Goals
- Course Descriptions
- Using Primary Literature
- Incorporating Data
- Teaching Petrology in the Field
- Selected Starting Resources
- Teaching Activities
- Selected References
- Additional Resources
- Minerals, Inclusions and Volcanic Processes
- Analytical Geochemical Instrument Registry
- 2011 Workshop
- 2003 Workshop
- Contribute Materials

TeachTheEarth

Petrology resources from across Teach the Earth »

Petrology Activities and Examples Collection

This is a collection of educational resources used in igneous and metamorphic petrology courses. The collection includes lab exercises, classroom activities, problem sets and more. The purpose of this collection is to allow for the sharing of materials within the community of petrology teachers. You can

- Add your teaching materials to the collection.
- Browse the entire collection of teaching activities by topic, using the Table of Contents.
- Search the collection of teaching activities by typing text into the search box below or by selecting a topic or activity type from the boxes on the right.

Related Links
- Petrology activities that use databases
- Teaching Phase Equilibria

search

Help

Results 1 – 15 of **300 matches**

Petrology and Geochemistry of the Ongoing Pu'u 'Ō'ō Eruption of Kīlauea Volcano, Hawai'i (1983–2009) part of Hawaiian Volcanoes

Andrew Greene, Hawaii Pacific University; Michael Garcia, University of Hawaii at Hilo

The current eruption of Kīlauea Volcano on the island of Hawai'i has been closely monitored and studied since its inception in 1983. This laboratory exercise utilizes the excitement of an ongoing eruption to ...

On the Cutting Edge Exemplary Collection

Rocking Through the Rock Cycle part of K-8 Geo Teacher Preparation:Workshop 2016:Activities

Mary Mutrux, Missouri State University

The students will participate as matter traveling through the rock cycle while drawing cards from 4 rock matter stations (magma, igneous, sedimentary, and metamorphic). Afterwards, the student will demonstrate their path using a laser pointer in a projected large the rock cycle diagram.

On the Cutting Edge Exemplary Collection

Refine the Results↓

Subject: Igneous and Metamorphic Petrology
- 105 matches General/Other
- Geochemistry 49 matches
- Igneous Associations and Tectonic Settings 43 matches
- Igneous Processes 74 matches
- Igneous Rocks 39 matches
- Metamorphic Processes 31 matches
- Metamorphic Rocks 15 matches
- Metamorphic Rock Suites and Facies 14 matches
- PTt Relationships 29 matches
- Thermodynamics and Phase Equilibria 52 matches
- Volcanology 75 matches

Resource Type: Activities
- 60 matches General/Other
- Problem Set 68 matches
- Classroom Activity 146 matches
- Lab Activity 109 matches
- Project 34 matches
- Field Activity 37 matches
- Virtual Field Trip 1 match
- Writing Assignment 21 matches
- Video Assignment 4 matches

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Explore Teaching Petrology Activities. Or find other topical teaching course activities can be found in the original On the Cutting Edge portal.

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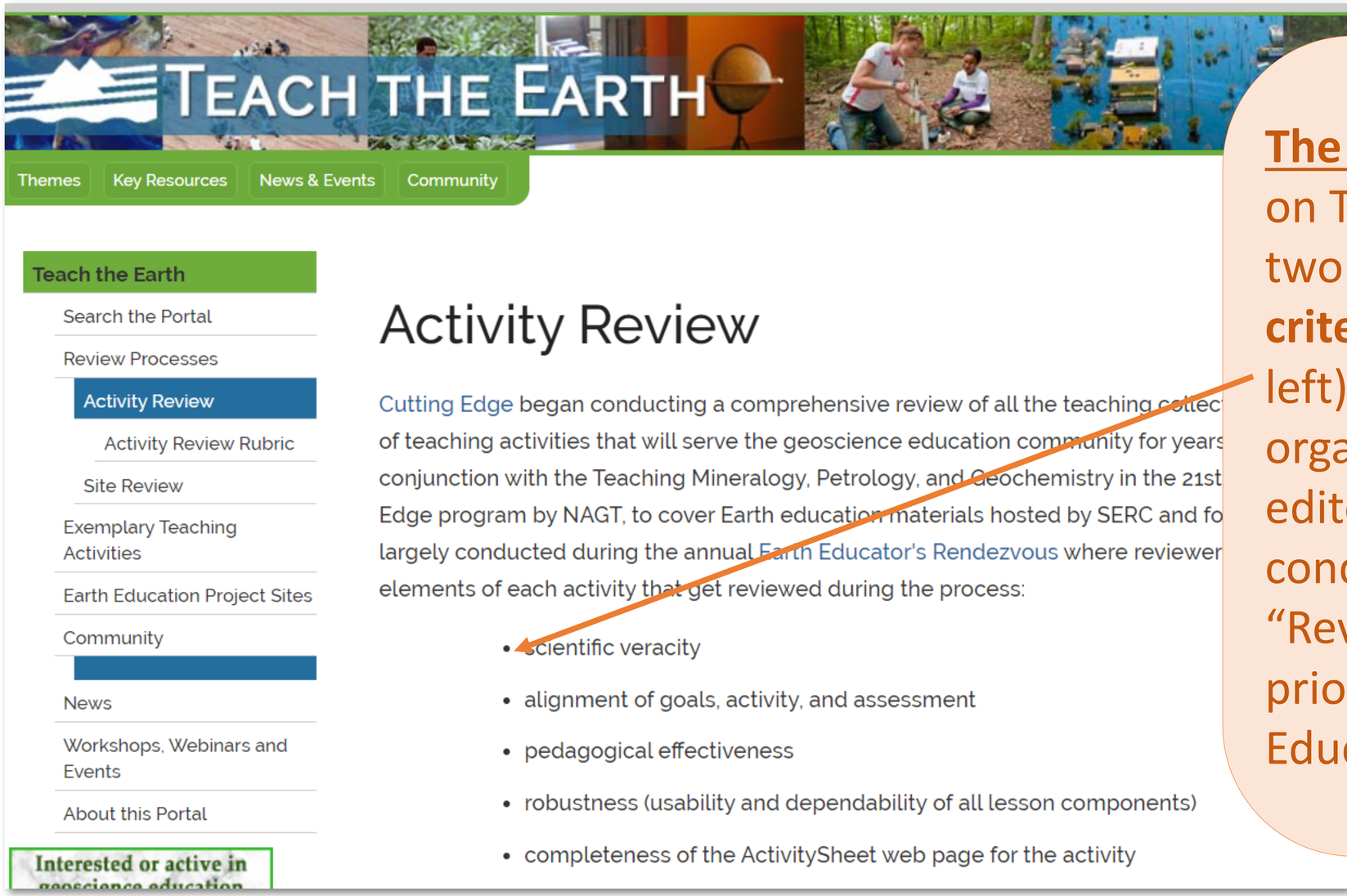

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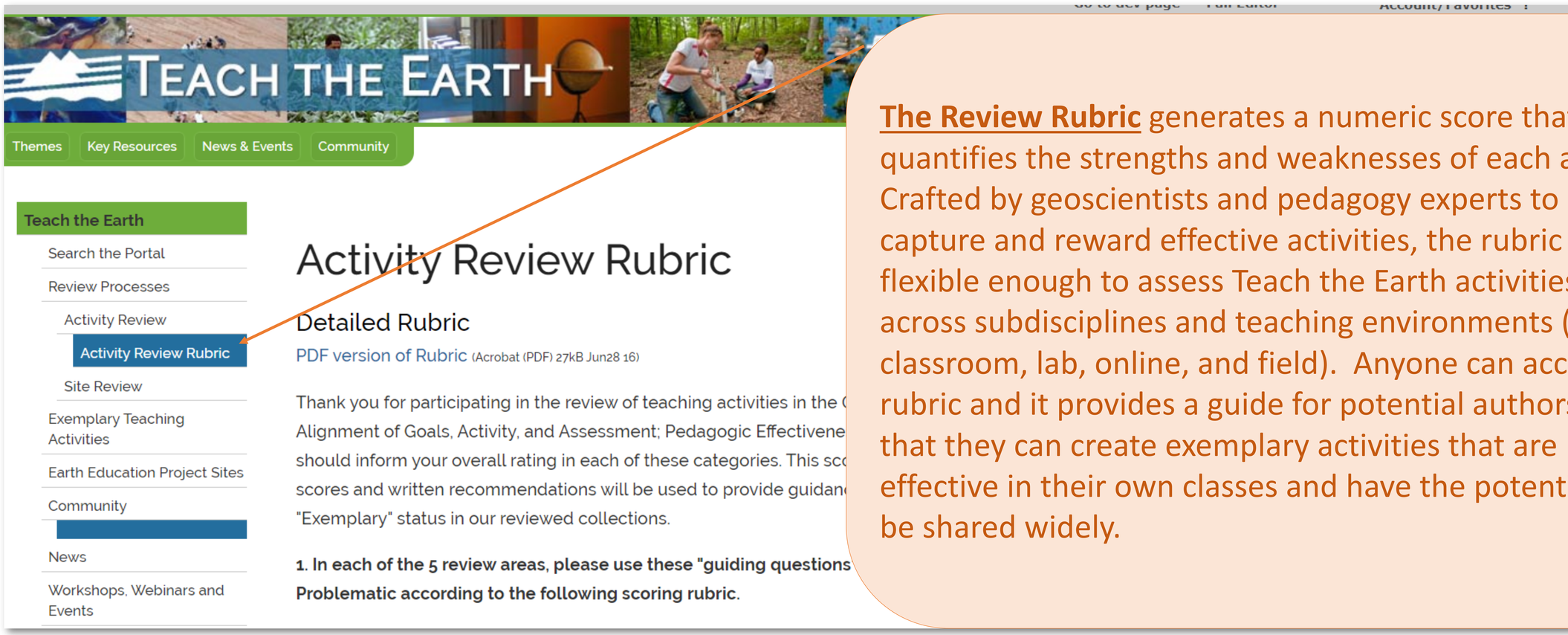

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Do you have an activity that worked particularly well? We invite you to contribute your own activity!

If you have any questions about

Navigating Teach the Earth

contact Jen Wenner: wenner@uwosh.edu

Contributing to Teach the Earth

contact Kyle Fredrick: fredrick@calu.edu