

SCIENCE EDUCATION RESOURCE CENTER (SERC)

SERC:

- Supports educators with transformative websites, workshops, and webinars, conducting research to develop effective pedagogy, and testing the most effective ways of implementing change in the classroom.
- Collects and hosts community-developed teaching resources, many vetted through a peer-review system, that utilize effective pedagogies.
- Works with professional societies and educational organizations to improve education through collective action.
- Supports interactions within and across communities as diverse as economics faculty, numeracy advocates, climate educators in all venues, geoscience department chairs, leaders of STEM education centers and leaders of STEM education efforts within disciplinary professional societies.



WHO THEY ARE

The Science Education Resource Center is a grant-funded office at Carleton College. Founded in 2002, SERC has partnered with leaders in higher education across the country on over 100 education projects across the STEM disciplines and allied fields. Engaging participants from more than 1,000 institutions of higher education, as well as K-12 curriculum developers and teachers, SERC is home to a wide array of award winning education websites that make it one of the world's largest online collections of pedagogic resources.

WHAT THEY DO

SERC programs address barriers to pedagogical and organizational change, a goal established in recognition of systemic barriers to meaningful and sustainable change on college and university campuses across the country. As noted by leaders in the QUIRK (Quantitative Inquiry, Reasoning, and Knowledge) initiative at Carleton College:

- [The fundamental barrier] is inertia, the tendency to keep doing what has been done in the way it has always been done. It takes energy to change and the key to engaging people is to help them become part of a larger cohort of allies who work toward a common vision and, thus, have a collective stake in making something new happens.
- Even when open to change, potential early adapters are not clear about resources needed to explore or adapt new practices, about the process by which to do so, or the politics of making substantive change.

SERC & PLANNING SPACES FOR LEARNING

As noted by sidebar questions in LSC Roundtable architectural portfolios, inertia and lack of experience with new practices are barriers to be addressed as campuses consider and explore possibilities for new spaces for learning.

- SERC offers a rich array of online resources, face-to-face, and virtual opportunities for faculty to learn about developing, implementing, and assessing new pedagogical practices that will be embraced by new or repurposed spaces.
- These SERC opportunities are an example of the growing depth and breadth of on-site and virtual opportunities within higher education that inform and inspire undergraduate faculty to move beyond current practice in shaping the experience of learning for undergraduates.

RESEARCH & RESOURCES

- <https://serc.carleton.edu>
- <https://serc.carleton.edu/highered/>
- <https://serc.carleton.edu/sp/>

