

NSDL using CSERD



<http://nsdl.org/>



The National Science Digital Library (NSDL) is the Nation's online library for education and research in Science, Technology, Engineering, and Mathematics (STEM). It was created by the National Science Foundation and is organized to support innovations in teaching and learning in STEM areas.



<http://www.shodor.org/refdesk/>

The Computational Science Education Reference Desk (CSERD) was created by the Shodor Education Foundation and is the *Computational Science* pathway for the NSDL.

The aims of CSERD are to help students learn about computational science and to help faculty incorporate computational science into the classroom. CSERD provides a catalog of resources, a forum to review materials and to ask questions, and an opportunity for users to share their original computational science activities with others. Existing activities can be used as templates to create new materials.

To create a member account in CSERD, please go to:

<http://www.shodor.org/refdesk/NewMember/>

and fill out the form. Becoming a member will allow you to submit new web site URLs. If you would like to become a reviewer of existing web sites within CSERD, we need to know more about your areas of expertise. Please follow the directions at:

<http://www.shodor.org/refdesk/UserHelp/anonymous>

in order to become a potential reviewer.

CSERD is searchable using keywords. Try various chemistry topics as keywords and see what is available. If the general term "Chemistry" is used, an alphabetical list of over 230 items will be found. (NOTE: The Chemistry portion of CSERD is under continuous development, so check back every so often to see what is new.) YOU are encouraged to contribute useful sites that you use that are not already a part of CSERD.

For more general information on CSERD and examples of the Chemistry content, see:

<http://www.ched-ccce.org/confchem/2008/b/P7.html>

Examples of search terms to try:

Ideal Gas: The search returns over 300 related sites

Visualization: This returns 66 sites, many of which are chemistry related

Reaction: Thirty three sites are included, most of which involve chemistry topics

Kinetics: Thirty five sites are returned, all of which are chemistry related

Symmetry: This search term produces 23 hits, several of which involve chemistry

For more information related to Chemistry at the NSDL, see:

<http://www.ched-ccce.org/confchem/2008/b/index.htm>



<http://jocse.org/>

The newest CSERD addition is the Journal of Computational Science Education (JOCSE), which promotes the use of computation in education through disseminating unique uses of computation in the classroom as well as research findings in computational science education, with submissions from both professionals and students. JOCSE utilizes internet technology and a web-based format to allow for enhanced interactivity in all publications.

Submissions are welcomed for the following:

- Computational science lesson plans
- Exercises with documented programs and datasets
- A technical paper describing the outcomes of computational science education

All submissions should be in the form of a paper with attached interactive materials (software, spreadsheets, interactive workbooks, or other materials) and photo quality graphics.

All papers, exercises, and programs will be subject to VV&A (Verification, Validation, and Accreditation) review, authors are highly encouraged to include their own VV&A results as a section in their paper. For more information on VV&A, see:

<http://www.shodor.org/refdesk/Help/howhelp>

Keywords should be adequate to both assign a reviewer and allow for completion of metadata for inclusion in the National Science Digital Library.

Materials accepted by JOCSE will be hosted on the JOCSE website, and will be catalogued by CSERD for inclusion in the National Science Digital Library.



<http://www.chemeddl.org/>

The American Chemical Society Education Division and the Journal of Chemical Education have created the Chemistry Education pathway for the NSDL (ChemEd DL).

ChemEd DL aims to provide exemplary digital resources, tools, and online services to aid in the teaching and learning of chemistry. They provide a destination for all those interested in chemistry to share what they know so that others may learn. To find out more about ChemEd DL, see:

<http://www.chemeddl.org/about/index.html>

A number of ChemEd DL collections have been created, and this is a worthwhile way to learn the materials available: To explore the collections, go to:

<http://www.chemeddl.org/collections/index.html>