

EDU 102 lab Computational Chemistry Education



<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.

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

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



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

The Computational Science Education Reference Desk (CSERD) was created by the Shodor Education Foundation and focuses on the computational science content of 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.

Registered users can submit web site URL's and computational science activities for review by the CSERD editors. The approved materials are then added to the database, and the user is cited as the creator and/or contributor.

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 month or so to see what is new.) YOU are encouraged to contribute useful sites that you use that are not already in 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 seventeen related sites

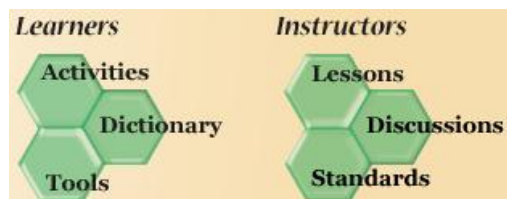
Visualization: This returns fifty-two sites, half of which are chemistry related

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

Kinetics: Sixteen sites are returned, all of which are chemistry related

Symmetry: This search term produces fifteen hits, five of which involve chemistry

Project Interactivate (Shodor Education Foundation)



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

The goals of Interactivate are the creation, collection, evaluation, and dissemination of interactive Java-based courseware for exploration in science and mathematics. There are currently over 100 activities that allow users to explore many areas of mathematics. A number of the activities can also be used to visualize and analyze data for scientific applications. In the Instructors portal, there are over 70 lessons based on the activities and aligned to NCTM standards.

A few Project Interactivate demos:

Function Flyer: <http://www.shodor.org/interactivate/activities/flyall/index.html>

Data Flyer: <http://www.shodor.org/interactivate/activities/flydata/index.html>

Histogram: <http://www.shodor.org/interactivate/activities/histogram/index.html>

Stopwatch: <http://www.shodor.org/interactivate/activities/stopwatch/index.html>