



# Finding Resources

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## The Main Website Activity Finder - [www.concord.org/activities](http://www.concord.org/activities)

Our projects at the Concord Consortium have primarily been grant funded, so historically the materials have been grouped by "project." We recently received a National Science Digital Library grant to help pull all these resources into a central database. The first steps of that have already been accomplished with some key activities highlighted in our current activity finder. This database will expand over the next two years as we add many more materials there.

## Classic (Java) Molecular Workbench (MW) Software - [mw.concord.org](http://mw.concord.org)

MW is the primary piece of software used to develop the models in many of our activities. Activity highlights can be found at the site dedicated specifically to MW. After launching MW, you can also browse models and activities from within MW itself. (An older database that will eventually be incorporated into the activity finder described above can be found at [workbench.concord.org/database/](http://workbench.concord.org/database/) )

## Next Generation (HTML5) MW Software - [mw.concord.org/nextgen/](http://mw.concord.org/nextgen/) (*info*); [lab.concord.org](http://lab.concord.org) (*embeddable interactives*)

NextGen MW is our early work in moving molecular dynamics based activities to the web. Ultimately this will make it easier to embed in your own online systems, and facilitate sharing and discussion around models.

## Activities Organized by Project - [www.concord.org/projects](http://www.concord.org/projects)

You can run virtually all of our materials without registering for any of the individual projects. However, to get data collection and reporting capabilities, you do need to register at whichever portal is hosting that activity. Below is a listing of some of our active projects.

### Innovative Technology in Science Scale Up - [itsi-su.concord.org](http://itsi-su.concord.org)



This comprehensive information technologies (IT) project will assist teachers in preparing diverse students for careers in IT by engaging them in exciting, inquiry-based science projects that use computational models and real-time data acquisition.

### Science of Atoms and Molecules/RI-ITEST - [ri-itest.concord.org](http://ri-itest.concord.org)



The Science of Atoms and Molecules project offers 24 research-based, field-tested activities for physics, chemistry, and biology. Through the SAM activities' interactive models and simulations, students get involved in inquiry-oriented active learning. A separate project (RI-ITEST) provides comprehensive PD for these materials.

### SmartGraphs - [smartgraphs.concord.org](http://smartgraphs.concord.org)



This project creates activities around "SmartGraphs," digital objects that "know" about themselves and that provide scaffolding to students to help them learn about graphs and the concepts graphs convey, in mathematics, science and other subjects.

### Geniverse - [demo.geniverse.concord.org](http://demo.geniverse.concord.org) (setup classes at [geniverse.concord.org](http://geniverse.concord.org))



Using a game-like interface students breed mini-dragon-like creatures called drakes to discover underlying genetic principles. Concepts students explore include the basics of Mendelian genetics up through modern bioinformatics. Topics range from DNA to proteins, meiosis, and what is more traditionally called "genetics."

### High Adventure Science - [has.concord.org](http://has.concord.org)



The High Adventure Science project is bringing some of the big unanswered questions in Earth and space science to middle and high school science classrooms. Students will explore the mechanisms of climate change, consider the possibility of life on other planets, and devise solutions to the impending shortage of fresh water.

### Electron Technologies - [et.concord.org](http://et.concord.org)



By engaging students with advanced computational models of electron behavior, this project fosters the fundamental understandings students require for careers in areas such as nanotechnology, photonics, and materials science.

### RITES - [rites.concord.org](http://rites.concord.org)



The Rhode Island Technology Enhanced Science (RITES) project is a major initiative funded by a grant from the NSF to the University of Rhode Island to improve secondary science learning (grades 5-12) throughout Rhode Island through the use of highly interactive technologies.

### SPARKS - [sparks.concord.org](http://sparks.concord.org)



The SPARKS (Simulations for Performance Assessments that Report on Knowledge and Skills) software teaches intro electronics with a virtual breadboard, components and test equipment. It monitors, records, and interprets student performance and generates scored reports with visual indicators of success.

### Engineering Energy Efficiency - [energy.concord.org](http://energy.concord.org)



This project investigates the educational value of computational models and simulations within the design process. Students design and build an energy-efficient scale-model house with the aid of simulations and probeware.

### Evolution Readiness - [er.concord.org](http://er.concord.org)



Fourth-grade students learn Darwin's model of natural selection using computer-based models depicting interacting organisms and their environments. Curricular activities involve formative assessment, labs, and multimedia materials.

### Universal Design for Learning - [udl.concord.org](http://udl.concord.org)



This project extends to science the ideas of Universal Design for Learning, which has had previous success in teaching language arts, by developing technology-rich science curriculum modules for grades 3-6 involving probes, sensors and computational models and centered on learning of energy concepts.