

## Science Simulations

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/Roller Coaster <http://www.funderstanding.com/k12/coaster/>

/Minds on Physics [http://www.hal-pc.org/~clement/Simulations/Physlets/MOP/minds\\_on\\_physics\\_physlets.html](http://www.hal-pc.org/~clement/Simulations/Physlets/MOP/minds_on_physics_physlets.html) Be aware of the browsers

/Free Physics simulations <http://www.scienceshareware.com/>

/Distance and Velocity [http://www.hal-pc.org/~clement/Simulations/Physlets/TST/TST\\_Motion\\_Simulations.html](http://www.hal-pc.org/~clement/Simulations/Physlets/TST/TST_Motion_Simulations.html) Be aware of the browser

/Gravitational Forces <http://www.hal-pc.org/~clement/Simulations/Physlets/Gravitational/Gravitational%20Force.html>

/Electrostatic Simulation [http://www.hal-pc.org/~clement/Simulations/Physlets/Electrostatics/electrostatics\\_J\\_Clement.html](http://www.hal-pc.org/~clement/Simulations/Physlets/Electrostatics/electrostatics_J_Clement.html)

/Rutherford Atom Model  
[http://Galileo.phys.Virginia.EDU/classes/109N/more\\_stuff/Applets/rutherford/rutherford2.html](http://Galileo.phys.Virginia.EDU/classes/109N/more_stuff/Applets/rutherford/rutherford2.html)

/Thomson Atom Model  
[http://Galileo.phys.Virginia.EDU/classes/109N/more\\_stuff/Applets/rutherford/rutherford.html](http://Galileo.phys.Virginia.EDU/classes/109N/more_stuff/Applets/rutherford/rutherford.html)

/Newtonian Canon [http://Galileo.phys.Virginia.EDU/classes/109N/more\\_stuff/Applets/newt/newtmtn.html](http://Galileo.phys.Virginia.EDU/classes/109N/more_stuff/Applets/newt/newtmtn.html)

/Projectile Motion <http://www.hal-pc.org/~clement/Simulations/Physlets/MOP/ProjectileMotion.html>

/Atmospheric Pressure <http://www.xgrayce.com/applets/canonical.html>

/Brownian Motion <http://www.hal-pc.org/~clement/Simulations/Physlets/Molecular%20Pius/Browian%20Motion.html>

/Ideal Gas1 <http://www.hal-pc.org/~clement/Simulations/Physlets/Molecular%20Pius/PVT-%20Small%20Molecules.html>

/Non Ideal Gas <http://www.hal-pc.org/~clement/Simulations/Physlets/Molecular%20Pius/PVT.html>

/Properties of a Solid <http://www.hal-pc.org/~clement/Simulations/Physlets/Molecular%20Pius/Solid.html>

/Osmosis <http://www.hal-pc.org/~clement/Simulations/Physlets/Molecular%20Pius/Osmosis-PIUS.html>

/Specific Heat <http://www.hal-pc.org/~clement/Simulations/Physlets/Molecular%20Pius/SpecificHeat-PIUS.html>

/Happy Molecules <http://www.xgrayce.com/applets/happy.html>

/One Atom Gas [http://Galileo.phys.Virginia.EDU/classes/109N/more\\_stuff/Applets/Piston/jarapplet.html](http://Galileo.phys.Virginia.EDU/classes/109N/more_stuff/Applets/Piston/jarapplet.html)

/Velocity (Boat in River) <http://www.surendranath.org/Applets/Kinematics/BoatRiver/BoatRiverApplet.html>

/Vector Calculator <http://comp.uark.edu/~jgeabana/java/VectorTest.html>

/General Physics (waves, heat, electricity, dynamics, optics..) <http://www.surendranath.org/Applets.html>

/Mixing Primary colors of light <http://www.hal-pc.org/~clement/Simulations/Mixing%20Colors/rgbColor.html>

/Reflected Light Colors [http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Reflected\\_color.htm](http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Reflected_color.htm)

/Mixing Colored Light/Paint [http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Mixing\\_Colors.html](http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Mixing_Colors.html)

/Reflected Color [http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Reflected\\_color.htm](http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Reflected_color.htm)

/Refraction and Reflection <http://lectureonline.cl.msu.edu/~mmp/kap25/Snell/app.htm>

/Optics Bench [http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Optics\\_Bench.html](http://www.hal-pc.org/~clement/Simulations/Physlets/Optics/Optics_Bench.html)

/Quantum Particle in Box <http://www.xgrayce.com/applets/dwell.html>

/Thermodynamics (2nd law) <http://www.xgrayce.com/applets/bounce/index.html>

/Gravitational Orbits  
<http://physics.uwstout.edu/physapplets/Northwestern/www.physics.nwu.edu/vpl/mechanics/planets.html>

/Physical Systems Simulations <http://lectureonline.cl.msu.edu/~mmp/applist/applets.htm>

/High School Physics [http://www.control.co.kr/java/java\\_e.htm](http://www.control.co.kr/java/java_e.htm)

/Physics simulations [http://galileo.phys.virginia.edu/classes/109N/more\\_stuff/Applets/](http://galileo.phys.virginia.edu/classes/109N/more_stuff/Applets/)

/Explore Scientific Principles <http://www.xgrayce.com/applets/>

/Meteorology Simulations <http://www.pals.iastate.edu/simulations/>

/Virtual Labs and Simulations <http://www.hazelwood.k12.mo.us/~grichert/sciweb/applets.html>

/Science and Space Simulations  
<http://www.ncsu.edu/sciencejunction/station/experiments/earthkam/simulation/>

/Fear of Physics <http://www.fearofphysics.com/index.html>

/Patterns in Nature Simulations <http://polymer.bu.edu/java/>

/Game of Life <http://www.shodor.org/interactivate/activities/life/index.html>

/Rabbits and Wolves (Chaos) <http://www.shodor.org/interactivate/activities/rabbits/index.html>

/Virtual Knee Surgery <http://www.edheads.org/activities/knee/>

/Simple Machines (Odd Machine)[http://www.edheads.org/activities/odd\\_machine/](http://www.edheads.org/activities/odd_machine/)

/Simple Machines <http://www.edheads.org/activities/simple-machines/>

/Weather <http://www.edheads.org/activities/weather/>

/Virtual Chemistry Lab <http://www.chemcollective.org/vlab/vlab.php>

/Solving a Mystery Death (chemistry) <http://www.chemcollective.org/mr/>

/Virtual Lab Simulations <http://www.chemcollective.org/find.php>

/Develop a new fuel for Mars <http://www.chemcollective.org/mars/>

/Meals Ready to Eat (camping) <http://www.chemcollective.org/mre/>

/Unknown Acid <http://www.chemcollective.org/oldlab/>

/Climb Mt Everest w/out passingout <http://www.chemcollective.org/applets/everest.php>

/Stoichiometry <http://www.chemcollective.org/applets/stoich.php>

/Periodic Table <http://www.chemcollective.org/applets/pertable.php>

/PaleoMap Project (plate techtonics) <http://www.scotese.com/>

/Science Simulations [http://chem.ps.uci.edu/education/undergrad\\_pgm/applets/](http://chem.ps.uci.edu/education/undergrad_pgm/applets/)

/Virtual Plant Growth Lab <http://cycas.cornell.edu/ebp/projects/laststraw/ise/frm.lab.html>

/Animal Cell Mitosis <http://www.cellsalive.com/mitosis.htm>

/Cell Simulation: Mitosis, Meiosis, Cell cycles, Cell Cam, plant cell, animal cell <http://www.cellsalive.com/>

/Biology Simulation- evolution <http://www.biologyinmotion.com/evol/index.html>

/Biology in Motion <http://www.biologyinmotion.com/>

/Virtual Microscopy <http://micro.magnet.fsu.edu/primer/virtual/virtual.html>

/Population Growth Simulations <http://www.arcytech.org/java/population/>

/Math and Physics Simulations <http://www.falstad.com/mathphysics.html>

/Interactive Biology (Heart, ..) <http://www.hhmi.org/biointeractive/>

/Geomysteries (rocks, Fossils..) <http://www.childrensmuseum.org/geomysteries/mysteries.html>

/Design a Space Station <http://www.childrensmuseum.org/cosmicquest/index.html>

/Physics Simulations <http://www.colorado.edu/physics/2000/index.pl>

/Explore Earth Science <http://vcourseware5.calstatela.edu/>

/Virtual Frog Dissection <http://froggy.lbl.gov/virtual/>

/Sun Path Simulation <http://solar.anu.edu.au/Sun/SunPath/index.html>

/Virtual Microscope <http://www.udel.edu/Biology/ketcham/microscope/#1>

/Virtual Plant Cell <http://www.life.uiuc.edu/plantbio/cell/>

/Interactive Physics and Math <http://www.physics.otago.ac.nz/Physics100/simulations/Gamelan/>

/Space Simulations <http://www.rice.edu/armadillo/Simulations/simserver.html>

/Genetics Simulations <http://genscope.concord.org/>

/Physics Simulations <http://library.thinkquest.org/3042/>

/Virtual Cell <http://www.ibiblio.org/virtualcell/index.htm>

/Physic Simulations <http://library.thinkquest.org/10170/main.htm?tqskip1=1>

/Solar System Simulation <http://space.jpl.nasa.gov/>

/Ecotourism (AmazonInteractive) <http://www.eduweb.com/ecotourism/eco1.html>

/Planetary Adventure Base Camp  
[http://wwwsil.bham.wednet.edu/Curriculum/Planetary\\_Adventure/paBASECAMP.HTM](http://wwwsil.bham.wednet.edu/Curriculum/Planetary_Adventure/paBASECAMP.HTM)

/Explore Learning (there is a cost) <Http://www.explorelearning.com>

/Science Simulations (there is a cost) <http://www.sciencesimulations.com/intro.htm>