Science Spotlight: Online Resources for Learning

Links are available at http://www.sciencespot.net/Pages/scienceonline.html

Physics Resources

Featured Sites:

- ☑ Infinite Potential Explore energy-related concepts with these modules from the JASON website.
- ☑ <u>EdHeads Simple Machines</u> & <u>Compound Machines</u> Learn about simple and compound machines using these interactive games. Also available ... <u>Crash Science</u>, <u>Simple Machines worksheet</u>, & <u>Science Spot: Simple Machines Links</u>
- ☑ Coaster Creator (JASON) Learn the physics behind roller coasters by creating a thrilling ride!

Other Links:

Amusement Park PhysicsEnergy QuestExploratorium OnlineShockwave PhysicsElectro CityLittle Shop of PhysicsNobel Prize - PhysicsEnergyvilleFOSS Web Activities

Junkyard Wars Games iknowthat.org Optics

Chemistry Resources

Featured Sites:

- ☑ <u>Toxic Mystery</u> Learn about toxic substances that can be found in a home.
- ☑ <u>American Chemical Society Games</u> Six online games exploring chemistry concepts. Also check out the other classroom and online activities available in the <u>Science for Kids</u> area.
- ☑ <u>Alien Juice Bar</u> Explore acids and bases with this activity from <u>LHS Gems</u>. A <u>worksheet</u> is also available.

Other Links:

ZOOM Kitchen ChemistryStrange MatterPhET SimulationsChemBalancerIPPEX Online – MatterPaul's Quest (Polymers)Balancing EquationsJLab Games & Activities

Earth Science Resources

Featured Sites - Weather:

- Monster Storms Students learn about hurricanes as they analyze satellite images and storm data to predict the path and magnitude of an approaching storm. Check out their great <u>curriculum resources</u>.
- ☑ <u>EdHeads Weather</u> Challenges students to report the weather and develop a forecast.

Other Links:

<u>Discovery Channel Tornado</u>
<u>Scholastic Interactive Weather Maker</u>
Weather Flash
Nat Geo Kids Wildest Weather

Featured Sites - Plate Tectonics & More:

- ☑ Tectonic Fury Explore plate tectonics, rocks, and minerals with digital labs from this series.
- Mysteries of Earth & Mars Explore the history of Mars and see how it compares with Earth

Other Links:

Learner.org VolcanoesOlogy – Earth ScienceEarthquake SimulatorPhEt Simulations for EarthOlogy – PaleontologyVirtual VolcanoScienceEarthquakes for KidsExtreme Geo Challenge

Astronomy Resources

Featured Sites:

- AstroVenture Students find a planet and develop it for human habitation.
- ☑ Cosmic Quest Students can design a Space Station or join an expedition to the North Pole.
- ☑ <u>Planet Impact</u> Students investigate gravitational forces involved in a comet impact. Also check out the other <u>Amazing Space</u> adventures!

Other Links:

NASA Kid's Club Search for ET Smithsonian - Sizing Up

NASA Interactive Features Ology – Astronomy The Universe

<u>Explore the Solar System</u> <u>World Wide Telescope</u>

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Life Science Resources

Featured Sites – Ecology & Biology:

- ☑ Operation Resilient Planet Students join science expeditions with practicing researchers and explorers to learn about ecology and the environment.
- ☑ <u>ARKive</u> This site offers online games and learning resources for an assortment of biology topics.

Other Links:

Great Plant EscapeShedd InteractivesSecrets @ SeaA Walk in the WoodsOlogy – BiodiversityShepherd SoftwareNab the Aquatic InvaderMicroscope LinksVirtualfishtank.com

Featured Sites - Genetics:

- ☑ <u>Learn Genetics</u> An excellent site for students to learn about DNA with informative articles and online activities.
- ☑ <u>DNA from the Beginning</u> This site provides genetic information along with a variety of animations and problems to help reinforce student learning.
- Nobelprize.org Check out all the medicine-related activities available on their website.

Other Links:

GEEE in GenomeBreedingEye of the Donkey (PCR)Bugsville (Download)RigglefishOlogy - Genetics

<u>Dragonfly TV Dog</u> <u>DNA Workshop</u>

Featured Sites - Human Biology & Health:

- ☑ <u>N-Squad</u> Students learn about the effects of alcohol on the human body as they work with the forensic scientists to solve a mysterious death. <u>Teaching materials</u> are also available.
- ☑ Reconstructors Challenge your students to these three cases to help them learn about the helpful and harmful drugs. Teaching materials are also available for each series.
- ☑ MedMyst Students learn about infectious diseases and the scientific method as they explore the mysteries available in this module. Don't miss the "Teachers" area!
- ☑ Outbreak at Waters Edge Students investigate an outbreak and determine its source to prevent others people from getting sick.
- ☑ <u>Buffet Busters</u> Students are introduced to concepts related to food and waterborne infectious diseases as well as basic principles of epidemiology.

Other Links:

Immune AttackAspireRemissionScience PiratesQuest for the CodeBlueKids.org

HHMI BioInteractive

Math Resources

- ☑ Shodor Interactivate A large collection of math simulations and interactive activities for every math topic!
- ☑ <u>National Library of Virtual Manipulatives</u> One of the best resources for computer-based simulations and tutorials.
- ✓ <u>NCTM Illuminations</u> Another great resource for quality math games!
- ☑ Labyrinth Math-based puzzles and narrative in which students work to find their lost pet.
- Academic Skill Builders A variety of math games that can be used on a computer or a Wii.
- ☑ Manga Math Games A collection of free math games for middle and high school students.
- ✓ Math Playground Over 15 manipulatives for you to use with your students.
- ☑ <u>BBC Math Games Wheel</u> A collection of 12 fun math games that your students will enjoy!
- ☑ <u>Create-A-Graph</u> An easy-to-use online tool to make an assortment of graphs for your science labs and activities.