



Science Information for Teachers [sift@CPET.ufl.edu]

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And a chance encounter with the small...

A Baby Octopus video

<http://www.dump.com/2011/12/07/just-a-baby-octopus-video/>

First Planet in Habitable Zone of Sun-like Star

NASA's Kepler mission has confirmed its first planet in the "habitable zone," the region where liquid water could exist on a planet's surface. Kepler also has discovered more than 1,000 new planet candidates, nearly doubling its previously known count. Ten of these candidates are near-Earth-size and orbit in the habitable zone of their host star.

http://www.nasa.gov/mission_pages/kepler/news/kepsscicon-briefing.html

Apollo 17 Extravehicular Activity - 39 Years Ago Today

39 years ago, today, scientist-astronaut Harrison H. Schmitt is photographed standing next to a huge, split lunar boulder during the third Apollo 17 extravehicular activity (EVA) at the Taurus-Littrow landing site. The Lunar Roving Vehicle (LRV), which transported Schmitt and Eugene A. Cernan to this extravehicular station from their Lunar Module (LM), is seen in the background.

http://www.nasa.gov/multimedia/imagegallery/image_feature_2129.html

Antibody-Mediated Immune Response

Antibody-Mediated Immune Response video animation

<http://www.youtube.com/watch?v=hQmaPwP0KRl>

Cell Mediated Immune Response

Cell Mediated Immune Response video animation

<http://www.youtube.com/watch?v=1tB0mG0QMbA>

Brain Myths Busted by Science

Brain games will make you smarter! The internet is making you dumber! Alcohol is killing your brain cells! The brain is a mystery we've been trying to solve for ages, and the desire to unlock its secrets has led to vast amounts of misinformation. Many of these false notions are more widely believed than the truth. We took our healthy skepticism and a bunch of brain research to find the truth behind some of the most common myths about intelligence and our brains.

<http://lifehacker.com/5867049/nine-stubborn-brain-myths-that-just-wont-die-debunked-by-science>

Chemistry Cats

What can I say, They're cute

<http://www.buzzfeed.com/daves4/the-best-of-chemistry-cat>

Planetary View

how the planets would look if they were the same distance as the moon

<http://www.dump.com/2011/12/05/planets-viewed-from-earth-as-if-they-were-at-the-distance-of-our-moon-video/>

The Blood Typing Game

Match the correct blood with the patients to help them alive!

<http://www.nobelprize.org/educational/medicine/landsteiner/landsteiner.html>

Illuminating Photosynthesis

Explore how photosynthesis works by helping the process along in this game.

<http://www.pbs.org/wgbh/nova/nature/photosynthesis.html>

The Electrocardiogram Game

<http://www.nobelprize.org/educational/medicine/ecg/index.html>

Virtual Experiment: Viscosity Explorer

The Viscosity Explorer lets you see how viscosity varies from liquid to liquid and how temperature affects viscosity. You can

- compare two different liquids with each other
- test the same liquid at two different temperatures

http://www.planetseed.com/files/flash/science/lab/liquids/visco_exp/en/viscosity.htm?width=620&height=500&popup=true

Build Your Own Star

Use our star simulator to build your own star! You determine the fate of your star by setting initial characteristics. Then watch as its life story unfolds before your eyes. Here's your guide to the Build Your Own Star controls and displays. But first, a little background...

<http://www.planetseed.com/node/20127>

Dartmouth College Periodic Puzzle

Click on an element in the table to get information for that element. Data are displayed below the table.

Coloring by Numbers. Use the shading control to shade the table according to the values of the physical properties of the elements.

http://www.dartmouth.edu/~chemlab/info/resources/p_table/Periodic.html

The Virtual Autopsy

Welcome to The Virtual Autopsy - a newly revised site based on the original Virtual Autopsy sites. If you are familiar with the previous sites, you will have no problems navigating this one as the layout is the same. If you are new to The Virtual Autopsy - do not fear, this site is very easy to navigate.

<http://www.le.ac.uk/pa/teach/va/titlpag1.html>

Virtual Scanning Electron Microscopy

The site has teamed up with award-winning electron microscopist Dr. Dennis Kunkel to produce a series of interactive Java tutorials that explore various aspects of virtual Scanning Electron Microscopy (vSEM). Use the tutorial below to discover how specimens appear when magnified in the virtual SEM.

<http://micro.magnet.fsu.edu/primer/java/electronmicroscopy/magnify1/index.html>

A Virtual Pond Dip

This virtual pond dip introduces some of the commoner types and hopefully encourages an exploration of the incredible 'world within a world' of a real pond.

Click the mouse over each organism to display its factfile, which also gives links to more detailed articles. Each organism's relative size is to scale in the image; actual sizes are given in the factfiles.

<http://www.microscopy-uk.org.uk/index.html?http://www.microscopy-uk.org.uk/ponddip/>

Saber-Toothed Squirrel

Imagine a critter about the size of a squirrel. Imagine it with big eyes and a long snout. Now imagine it with canine fangs about one-fifth the length of its head. That's the kind of a mammal that scientists said today was walking among dinosaurs more than 100 million years ago.

<http://www.npr.org/blogs/thetwo-way/2011/11/03/141997834/scientists-unveil-fossil-of-saber-toothed-squirrel-that-lived-among-dinos>

Malaria Lifecycle Part 1

The visualization reconstructs infection of a human child via mosquito bite, through invasion of cellular tissues including the liver and blood. All features are to scale, including mosquito, blood vessels, human cells and parasite.

http://www.wehi.edu.au/education/wehity/malaria_lifecycle_part_1_human_host/

Malaria Lifecycle Part 2

An accurate visualization of the complete Malaria lifecycle, derived from scientific data sets, microscopy and published literature on the parasite's biology. Everything presented is accurate in scale, structure, and dynamic behavior of mosquito, parasites and human cells.

http://www.wehi.edu.au/education/wehitv/malaria_lifecycle_part_2_mosquito_host/

A Murmur of Starlings

A great video about a giant flock of starlings.

<http://vimeo.com/31158841>

WHITE HUMMINGBIRD

We're talking about albino hummers (those that lack all pigment and bear pristine white plumage and pink eyes, feet, and bill), what we call "leucistos" (leucistic birds with more-or-less white feathers but usually having dark eyes, feet, and bill), and "pieds" (birds with some normal feathers and some that are white).

<http://www.hiltonpond.org/ThisWeek111022.html>

Research Teacher (RT) Fellowship

In this year-long professional development fellowship, teachers nationwide

- 1) immerse themselves in cutting-edge biomedical research for 7-8 weeks;
- 2) enhance their teaching skills in Six Star Science principles (student-centered instruction, diversity/equity, technology, assessment, current scientific content, and reflecting on teaching and learning); and
- 3) build networks with scientists locally and nationally by attending a scientific conference.

<http://www.frontiersinphys.org/pages/page01a.shtml>

Flu Attack! How A Virus Invades Your Body

It starts very simply. A virus, just one, latches on to one of your cells and fools that cell into making lots more. Lots, lots more, like a million new viruses. This animation shows you how viruses trick healthy cells to join the dark side.

<http://www.npr.org/blogs/krulwich/2011/06/01/114075029/flu-attack-how-a-virus-invades-your-body>

Talk about Floating On Air

Check out the world's lightest material: 0.85 mg/cc

http://lightyears.blogs.cnn.com/2011/11/23/check-out-the-worlds-lightest-material/?hpt=hp_bn2

Earth | Time Lapse View from Space, Fly Over | NASA, ISS

Flyover of the Aurora Borealis

<http://vimeo.com/32001208>

The Gateway to Astronaut Photography of Earth

Besides hi-res photos, they also have HD videos

Main page: <http://eol.jsc.nasa.gov/>

The Earth's atmosphere layer is spectacular to view in the first video on the page(not to mention the thunderstorms).

Videos: <http://eol.jsc.nasa.gov/Videos/CrewEarthObservationsVideos/>

Most infamous invasive species

Nutria are doing a phenomenal job demolishing the wetlands of Louisiana. A local student just sponsored the first nutria rodeo.

<http://nutria.com/site2.php>

'Brinicle' ice finger of death

A bizarre underwater "icicle of death" has been filmed by a BBC crew. With timelapse cameras, specialists recorded salt water being excluded from the sea ice and sinking. The temperature of this sinking brine, which was well below 0C, caused the water to freeze in an icy sheath around it. Where the so-called "brinicle" met the sea bed, a web of ice formed that froze everything it touched, including sea urchins and starfish.

<http://www.bbc.co.uk/nature/15835017>

Pollination

A great video on different types of pollination. From a TED talk.

Video: <http://www.youtube.com/v/xHkq1edcbk4?version=3>

Full TED Talk: http://www.ted.com/talks/louie_schwartzberg_the_hidden_beauty_of_pollination.html

Curiosity

A great animation about the new Curiosity Mars rover.

<http://www.wimp.com/curiosityrover/>

Eggs

93 questions and answers about chicken eggs, incubation and embryology.

<http://urbanext.illinois.edu/eggs/res32-qa.html>
