

edited by Mitch Leslie

IMAGES

Library of Life



Looking for a video demonstrating how to dissect a cat's circulatory system or an animation of the life cycle of the intestinal parasite *Giardia*? These are just two of the many offerings at Bio-DiTRL, a collection of free media for teachers and students hosted by the University of Alberta in Edmonton, Canada. Contributed by site visitors, the more than 2200 photos, animations, and videos cover fields from microbiology to immunology but emphasize zoology. Students can learn how proteins on immune cells help the body recognize invading pathogens, for instance, or compare the silk-spouting spinnerets of different spiders. This unlucky tomato hornworm caterpillar (above) is studded with the cocoons of parasitic wasps.

bio-ditrl.sunsite.ualberta.ca

TOOLS

Acronym Soup

Like slang, acronyms can smooth communication if you're in the know but often befuddle the uninitiated. To help biomedical researchers avoid confusion, the creators of this site from the University of Texas Southwestern Medical Center in Dallas programmed a computer to glean acronyms and abbreviations from the MEDLINE abstracts database. Whether you're searching for AAAA (asymptomatic abdominal aortic aneurysm) or ZRT (zinc-regulated transporter), the site's more than 200,000 entries tell you what those puzzling letter combinations stand for and link to abstracts that describe their use. You can also enter a term and find its short form.

lethargy.swmed.edu/argh/ARGH.asp

Send site suggestions to netwatch@aaas.org. Archive: www.sciencemag.org/netwatch

EDUCATION

Becoming Human

An 8-week-old human embryo (below) already boasts eyelids, ears, and separated toes and fingers. Students can follow the progress of human development with movies, images, and animations at this site from Mark Hill of the University of New South Wales in Sydney, Australia. One section tracks changing body form through the 23 Carnegie stages that define the first 2 months of development. Other pages focus on particular structures, tracing the growth of the head, for example, and showing a furrow on the embryo's back closing to form the spinal cord, the process called neurulation. There's also a background on abnormal development.

anatomy.med.unsw.edu.au/cbl/embryo/embryo.htm



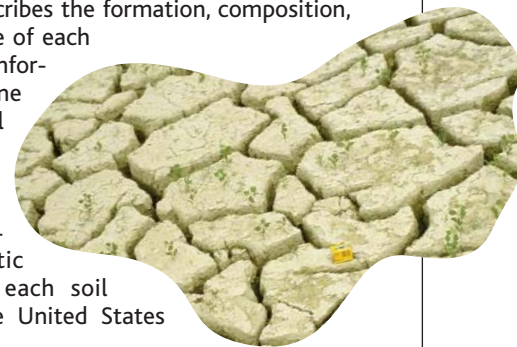
EDUCATION

Know Your Dirt

This primer gives readers a grounding in the different types of soil, from the fecund, dark earth of the Great Plains states to this clay-rich crust from Utah (below). Created by soil scientist Paul McDaniel of the University of Idaho, Moscow, the site describes the formation, composition,

and ecological importance of each of the 12 soil orders—information used by everyone from agronomists to civil engineers. The Utah dirt here is vertisol, a type that expands when wet and shrinks as it dries, creating these characteristic cracks. Maps delineate each soil type's distribution in the United States and globally.

soils.ag.uidaho.edu/soilorders



DATABASE

Hauling In Better Catch Data

With many of the world's fisheries depleted or in decline, policy-makers and resource managers need solid data on past catches to guide their decisions about future fishing. But for many countries, such information hasn't been available, according to Reg Watson of the Fisheries Centre at the University of British Columbia in Canada. Now he and his colleagues have launched Sea Around Us, a new site that provides these numbers.

To calculate figures for the years 1950 to 2001, Watson's team combined information on the ranges of commercial species from sources such as FishBase with records of fishing permits and activity from the United Nations and other bodies.

You can trawl catch data for the territorial waters of individual countries, for "high seas" areas not controlled by any nation, and for large ecosystems, such as the Caribbean and Bay of Bengal. The site also lists treaties and agreements that cover each country or area. For more information on particular species, follow links to accounts on sites such as CephBase.

seararoundus.org