NETWATCH

edited by Mitch Leslie

NET NEWS

Species Master List Hits Milestone

An international project to create a comprehensive listing of life on Earth is about one-third complete. Last week, the latest update to the Catalogue of Life pushed the total number of species in this taxonomic trove to more than 535,000. The catalog is sponsored by the Integrated Taxonomic Information System (ITIS) and Species 2000, a consortium of database organizations based at the University of Reading, U.K. (*Science*, 14 July 2000, p. 227). The Species 2000 site serves as a portal to the catalog, allowing you to browse or search a taxonomic tree linked to a host of "federated" databases such as AlgaeBase, the Species Fungorum, the World Spider Catalog, and many more. For example, look up the gerenuk (above), an African antelope, to find information such as its accepted scientific and common names, distribution, and classification. You can link to the ITIS database for more details. Smithsonian Institution zoologist Michael Ruggiero, director of ITIS, says the project is on track to record all of the roughly 1.75 million named species by 2011.

www.sp2000.org

RESOURCES

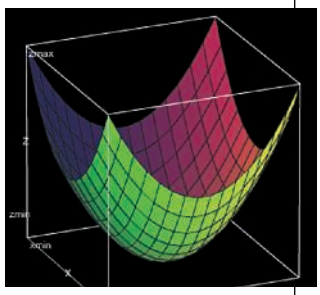
Precautionary Principles

Looking for data on the health risks of beryllium or advice about cleaning up spills of phthalic acid? Immerse yourself in chemical safety information at this site from the United Nations and other international organizations. The collection of fact sheets, reports, and other documents profiles hundreds of widely used substances and products, such as the flavoring zingerone, which gives gingersnaps their snap. For a quick rundown on a chemical's risks, flip through the chemical safety cards. Longer documents evaluate hazards from specific pesticides, potential carcinogens, and other kinds of compounds.

www.inchem.org

EDUCATION

Math Motherlode

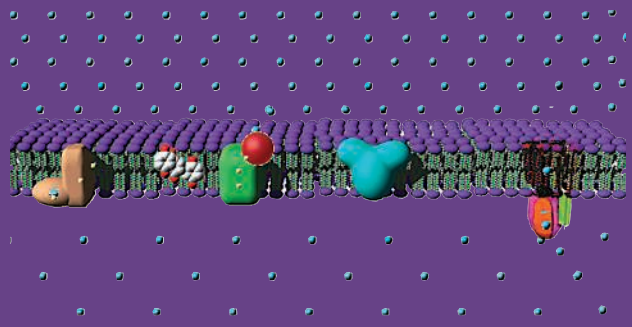


Math teachers looking for a telling example or lucid graphics to jazz up their classes can check out this Web site from the Mathematical Association of America. The online library furnishes tools, animations, and other resources to help high schoolers and undergraduates hone their math skills. Exercises let users do everything from graphing 3D equations to investigating the scatter of German rocket strikes on London during World War II, a classic example of the pattern called the Poisson distribution. With open-source math applets called Osslets, students can sink their teeth into topics such as linear transformation. The site also houses a journal with articles on using history to teach math—for example, analyzing paintings by Leonardo da Vinci and other Renaissance artists can help students understand geometry.

www.mathdl.org/jsp/index.jsp

WEB TEXT

Living Small



A restless throng of hydrogen ions lurks above a bacterial membrane. Pumped out by the cell, the ions push back across the membrane and turn molecular turbines (rightmost structure) that fashion ATP to power the microbe. Students can discover more about how a bacterium works at this online microbiology textbook from Tim Paustian of the University of Wisconsin, Madison. Still under construction, the site includes 17 partial or complete chapters covering everything from bacterial structure and nutrition to viral pathogens like the pesky rhinoviruses that cause colds. The text weaves in plenty of animations and fun tidbits, such as a section on the hardy *Pseudomonas* bacteria that can eat nitroglycerin and TNT. Paustian also comments on bugs in the news, including the bird flu outbreak in Southeast Asia.

www.bact.wisc.edu/Microtextbook

IMAGES

Retracing a Long Walk

Earlier this month, the National Geographic Society and IBM announced a project to produce a sharper picture of human migrations by analyzing DNA samples from 100,000 people (*Science*, 15 April, p. 340). The Web site of the Genographic Project is worth a look for the lavishly illustrated backgrounders on genetics and migrations. A timeline depicts what we know about the human expansion from Africa beginning about 60,000 years ago, stopping at landmarks such as the controversial Cactus Hill site in Virginia. Evidence found there suggests that people reached the Americas thousands of years earlier than previously thought. Another section explains how to send in your DNA and find out where your ancestors originated. Genealogical curiosity will cost you $99.95 plus shipping for the test kit.

www5.nationalgeographic.com/genographic

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

CREDITS (TOP TO BOTTOM): JOHN WATKINS/CORBIS; CORBIS; MATH DL; TIM PAUSTIAN/UNIVERSITY OF WISCONSIN

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