



EDUCATION

ASK, AND YE SHALL RECEIVE

A neutron star (purple, above) is a burned-out stellar husk, so why does it still glow? Are gorillas more muscular than humans because they have higher testosterone levels? To answer queries like these, the MadSci Network, a Boston-based nonprofit organization, can draw on the expertise of nearly 800 volunteer researchers around the world. The question-and-answer site has expanded from a student project at Washington University in St. Louis, Missouri, into a veritable encyclopedia that archives some 36,000 entries. Visitors from grade schoolers to professionals post up to 150 new questions a day. A cadre of scientists sifts the submissions and farms them out to the appropriate experts, who usually provide answers within 2 weeks. For example, a neutron star glows because its strong electrical field tears electrons from atoms in its outer layer, and the speeding electrons release energy. >> www.madsci.org

WEB LOGS

Graphing Lesson

Jam-packed charts that bury the main point. Cutesy layouts that make it difficult to read values from a graph. Misplaced numbers that divert the eye from the most important information. These are just some of the graphical sins Kaiser Fung enumerates in his blog Junk Charts. Once or twice a week, Fung, a statistics consultant, critiques examples from magazines, newspapers, government reports, and other sources. Although the charts typically involve business and sports topics, scientists can pick up tips about designing better diagrams for their own papers and presentations. >> junkcharts.typepad.com

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



DATABASE

Ready, Set, Read

You'd be lost if you opened a mystery novel at chapter 5 instead of chapter 1. But cells don't always start at the beginning when they copy a gene into RNA. A gene can contain multiple start sites, or promoters, and which one a cell chooses can change in diseases such as cancer. For a list of these initiation sequences, check out the Eukaryotic Promoter Database, hosted by the Swiss Institute for Bioinformatics in Lausanne. The site compiles experimentally verified promoters from a host of species, including humans, nematodes, fruit flies, and cattle. Users can browse the entries or compare them to their own sequences. >> www.epd.isb-sib.ch

IMAGES

Life Through The Lens

At this new evolution timeline, the history of life unfolds in nearly 90 arresting images from renowned nature photographer Frans Lanting. Life: A Journey Through Time is a Web version of Lanting's latest book and a touring multimedia show. It features a dramatic score by composer Philip Glass. To depict critical geological and evolutionary events, the timeline showcases modern landscapes that resemble those of primordial Earth and present-day representatives of groups from diatoms to birds. For example, the ancestors of this Australian desert spadefoot toad (*Notaden nicholssi*; above) clambered onto land some 370 million years ago. >> www.lifethroughtime.com



DATABASE

<< Neuroscience Family Tree

Rockefeller University neuroscientist Paul Greengard shared the 2000 Nobel Prize in physiology or medicine for deciphering how the neurotransmitter dopamine works in the brain. Greengard can claim more than 40 intellectual "grandchildren," and his scientific pedigree stretches back nearly 4 centuries to the German mathematician and philosopher Otto Mencke (1644–1707), who founded Germany's first academic journal. To trace mentor-protégé relationships for more than 3000 neuroscientists, climb NeuroTree, founded by postdocs Stephen David of the University of Maryland, College Park, and Ben Hayden of Duke University in Durham, North Carolina. NeuroTree differs from other projects that tease out intellectual lineages in math and chemistry (NetWatch, 24 September 1999, p. 2027; and 15 April 2005, p. 331) by allowing users to add and correct information. >> neurotree.org