

## EDUCATION

### Chemistry Circus

Chemist and showman Mike Hoyland believes something crucial is missing from today's chemistry classes: spectacle, the kind of flashy experiments that make chemistry entertaining and memorable. "You can only have real fun with reactive materials," he says.

If you've missed Hoyland's demonstrations at the University of Leeds in the United Kingdom, his TV appearances, or his road show, now you can catch him at the Delights of Chemistry Web site. In 28 film clips and hundreds of photos, Hoyland and his brave helpers perform jazzy experiments like the barking dog, a mixture of nitrogen monoxide and carbon disulphide that goes up with a woof and a flash. For teachers, the site also provides instructions for safely performing 40 demonstrations.

[www.chem.leeds.ac.uk/delights](http://www.chem.leeds.ac.uk/delights)



## EXHIBITS

### The Old Ball Game

Expectant fans pack the imposing stadium, ready to cheer their heroes and razz the local rivals. Sounds like almost any day in the sports-crazy United States, but the same scene

played out from 3500 to 500 years ago during the ball games of ancient Mesoamerica. Learn more about the first team sport at The Mesoamerican Ballgame, an intriguing site from the Mint Museum of Art in Charlotte, North Carolina, which parallels an exhibit touring museums through 2002.

Played with a rubber ball that could weigh up to 4 kilograms and sometimes contained a human skull, the fast-paced and hazardous sport was popular among the Aztecs, Maya, Olmecs, and other Mesoamerican civilizations. The site introduces these cultures and takes you on a virtual tour of the ball court at the Mayan ruin of Copán in Honduras. Or plunge into the details of the game, such as the rituals and costumes revealed by figurines and other artwork. The losers certainly knew the agony of defeat: They were sometimes sacrificed to appease the gods.

[www.ballgame.org](http://www.ballgame.org)



## RESOURCES

### Wildlife Crossing

Every June, birders across the country polish their binoculars, lace up their boots, and head off to count birds. The results from the Breeding Bird Survey, an annual event since 1966, reveal changes in bird populations across the country. Ornithologists can access and analyze the findings of surveys through 1999 at the Web site of the U.S. Geological Survey's Patuxent Wildlife Research Center in Laurel, Maryland.

Other site offerings include plenty of basic information on identification and natural history for a variety of wildlife. The vermilion flycatcher (right), a show-off from the Southwest, is covered in the illustrated guide to North American birds, which also supplies video, audio of songs, and distribution maps. Frogs and toads get their due as well. For example, there's a new key to the hard-to-identify North American tadpoles, amphibian population surveys, and information on the problem of disappearing amphibians. To find out how toxic chemicals harm wildlife, check out the site's Contaminant Exposure and Effects database, compiled from more than 6000 papers and reports.

[www.pwrc.usgs.gov](http://www.pwrc.usgs.gov)



## LINKS

### Cell Bio Central

Need to know which genes have been knocked out in mice? How about the proper technique for teasing DNA from a blood sample? Visit the WWW Virtual Library of Cell Biology, a roster of essential links for cell biologists tended by Gabriel Fenteany of the University of Illinois, Chicago.

One feature of the site is an assortment of general resources, from tutorials to job listings. Under databases, you'll find that list of mouse knockout genes and details on the effects of disabling each gene, along with repositories of cell lines and DNA and protein sequence databases. Lab protocols run from using stains and microscopes to more challenging tasks, like flow cytometry for measuring cell size and content. Other links include some 100 journals and more than 200 labs.

The Subject Pages provide a virtual encyclopedia of cell biology, with annotated links for 14 topics, from angiogenesis to gene expression to signal transduction. Depth of content varies widely here. If you're interested in angiogenesis, for example, the offerings range from a low-level primer to a page on mathematical models of the process.

[www.vlib.org/Science/Cell\\_Biology/index.shtml](http://www.vlib.org/Science/Cell_Biology/index.shtml)

Send great Web site suggestions to [netwatch@aaas.org](mailto:netwatch@aaas.org)