



## Isn't That Spatial? # 8: Teaching Geography Using DLESE

Note: This column originally appeared in the October-November 2004 issue of *Perspective* from the [National Council for Geographic Education](#).

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### What is DLESE?

Educators usually don't have time during the workday to pore through online resources in our information-rich world. That's where a digital education library like DLESE is so helpful. DLESE stands for "Digital Library for Earth System Education," a geoscience community resource that supports teaching and learning. Since its focus is analyzing the Earth as a System, DLESE is particularly suited for geography education. DLESE is funded by the National Science Foundation, and is being built by a community of educators, students, and scientists to support Earth system education at all levels. DLESE is part of the National Science Digital Library (NSDL), which serves the broader communities of science, technology, engineering, and math education. DLESE resources are pertinent to geography educators from primary to university level. Access DLESE by visiting:

<http://www.dlese.org>



### Why use DLESE?

If you would like easy access to teaching and learning resources about the Earth as a system for a wide range of learners, this is the site for you. In 10 minutes of using the site, I discovered wonderful resources for teaching using an endangered species board game, a video of satellite imagery spanning 23 years of urban growth in Washington DC, an animation of the USA population pyramid from 1950 projected to 2050, and data on the size of the ozone hole since the 1970s.

I recommend visiting DLESE periodically to examine their current featured "Resource of Interest." The American Field Guide was recently featured, a vast array of video clips of a wide variety of wilderness environments throughout America. These videos can be browsed by categories that include animals, ecosystems, Earth and space, plants, and public policy. Lesson plans for middle and high school weave segments of video together into units of inquiry around specific topics. The standards-based lessons were all written by high school teachers, and available on: <http://www.pbs.org/americanfieldguide/index.html>

Resources in DLESE include lesson plans, scientific data, visualizations, interactive computer models, GIS-based lessons, and virtual field trips. What's more, much of the content in DLESE is extensively reviewed. There are no "average" lessons here--all are well

researched, well-documented, pertinent to the topic they cover, interesting, inquiry-driven, standards-based, and in a nutshell, useful in the classroom!

One of the best things about DLESE is in its careful descriptions of its resources and services. That's essential for such a large library - nearly 8,700 when this article was written. These descriptions are created by Earth system educators, scientists, and librarians. These descriptions are analogous to the ones in your local library. DLESE descriptions also include the grade level, education standards, technical requirements, creator, publisher, and other information. Then, you can quickly decide which resource will best meet your needs. Tired of sites where half the links are dead? DLESE doesn't host any resources, but keeps checking to ensure that the resources in the library remain accessible and functional.

Many of DLESE's resources are organized in collections, or groups of related resources that reflect a coherent, focused theme. In many ways, digital collections are analogous to collections in traditional libraries.

DLESE also provides tools to allow students to explore Earth-related data, and services to help users create, use and evaluate digital learning resources.

## How to Use DLESE

Through <http://www.dlese.org>, the collection can be browsed through keywords like any other digital library, but since the resources are all focused on earth systems, even a keyword search is useful. I received 71 resources when entering "Change Over Time" versus 15,600,000 for a similar search using <http://www.google.com>. Even more useful is the fact that DLESE allows for narrowing the search based on grade level, resource type (such as classroom activity, field activity, oral history, map, and so on), collections, and standards.

## How to Get Involved With DLESE

DLESE is more than just a web catalog. It is a community of educators and a set of services. Services sponsored by DLESE for educators include peer-review systems, workshops, technical training to support future library developments, tools and interfaces to explore Earth data, and on-line community services that facilitate sharing among the DLESE community.

I and others have been working with the DLESE community for several years. DLESE is housed at the [University Corporation for Atmospheric Sciences \(UCAR\)](#) in Boulder. I can personally attest that they have some of the smartest, most enthusiastic people involved. I and other geography educators have participated in their annual conferences. My photo-report on one of these conferences is on:

<http://rockyweb.cr.usgs.gov/public/outreach/reports/dlese03t.pdf>

If you attend a DLESE Annual Meeting, you will meet educators and developers with similar interests, learn about fascinating resources, network with new colleagues, and you can make your geography education voice heard!

We help teach DLESE-sponsored workshops, for example, a workshop that I co-taught in Colorado:

<http://rockyweb.cr.usgs.gov/public/outreach/reports/dlese04t.pdf>

You could contribute a resource or lesson that you have created or borrowed, making geography education an even more prominent part of the collection. You can join a listserv to discuss relevant issues with or post an announcement to DLESE community members. You can register with DLESE to receive DLESE Matters, their e-newsletter, and periodic email updates. You can collaborate with a DLESE core service to build library collections or services.

DLESE needs the input of you, the geography education community! Think about attending their annual conference in summer 2005. An engaged community is fundamental to the DLESE vision.

DLESE is governed by an elected Steering committee who provides oversight and guidance. The DLESE Annual Meeting provides a forum for broad community input into library future development.

The collection would also benefit from lessons that you have created. All resources in DLESE have been contributed by community members, just like you.

Take advantage of a library where someone has done much of the work for you, leaving you to do what you want to do--not surf the web, but to teach!

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[U.S. Department of the Interior](#)

[U.S. Geological Survey](#)

[Rocky Mountain Mapping Center](#)

URL: [http://rockyweb.cr.usgs.gov/outreach/isntthatspatial\\_8\\_dlese.html](http://rockyweb.cr.usgs.gov/outreach/isntthatspatial_8_dlese.html)

Last modified: 19 August 2004