

NSDL

THE NATIONAL SCIENCE DIGITAL LIBRARY

NSDL: A New Tool for Teaching and Learning

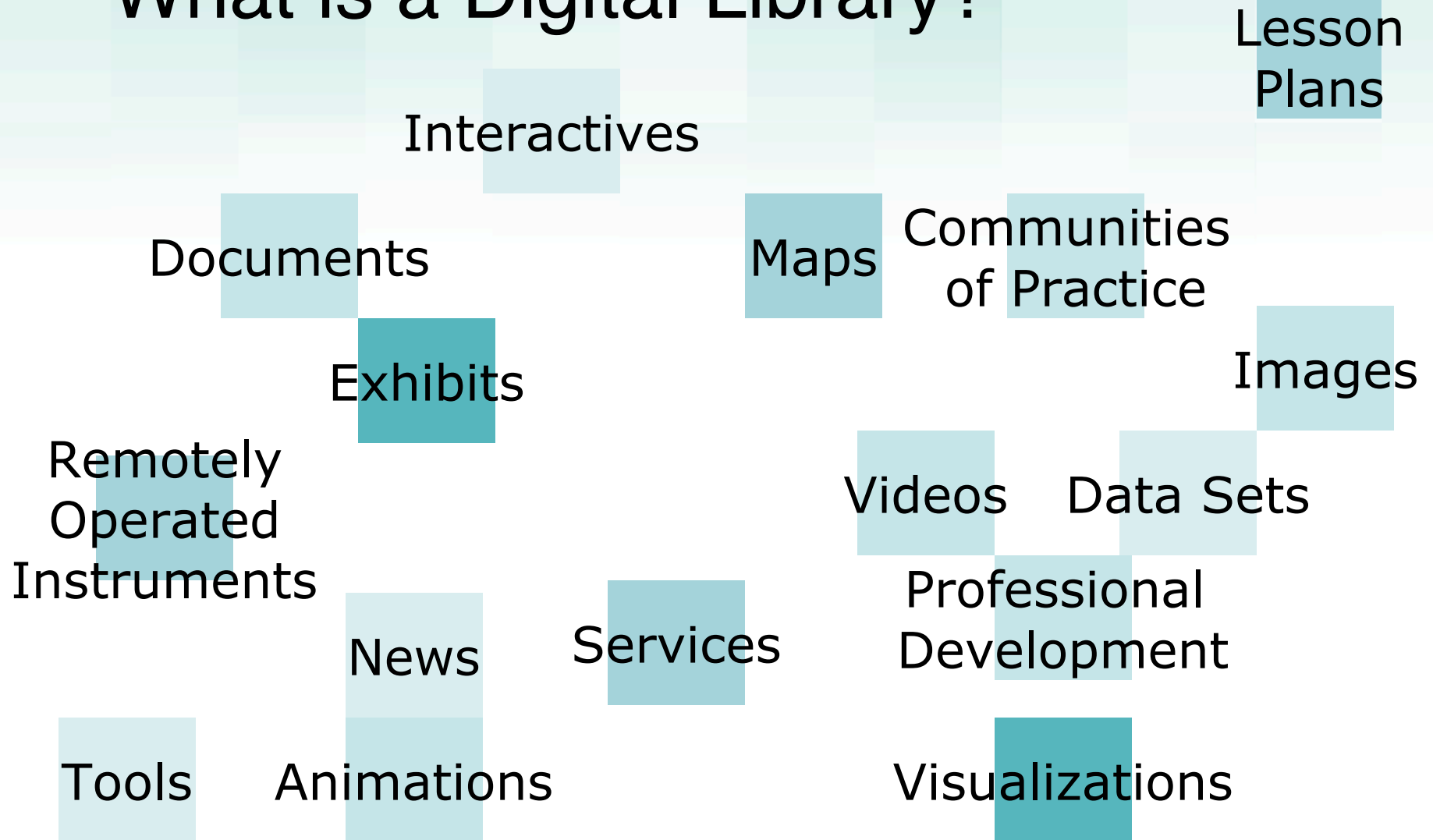


The National Science, Technology, Engineering, and Mathematics Education Digital Library

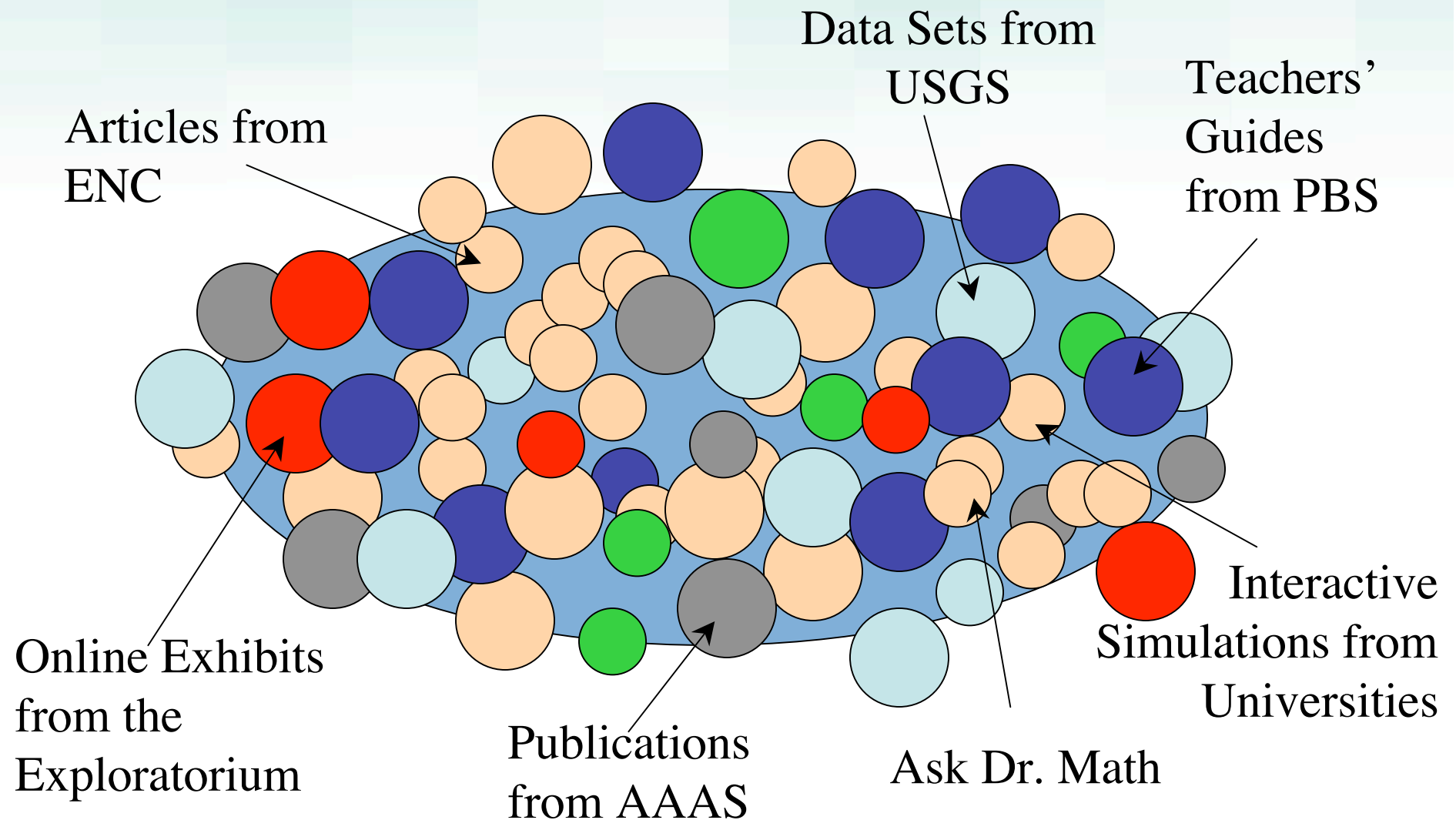
*The National Science Foundation's online
library of resources for education and
research ...*

...established to catalyze and support continual improvements in STEM education at all levels (K-12, Higher Education, and Lifelong Learning).

What is a Digital Library?



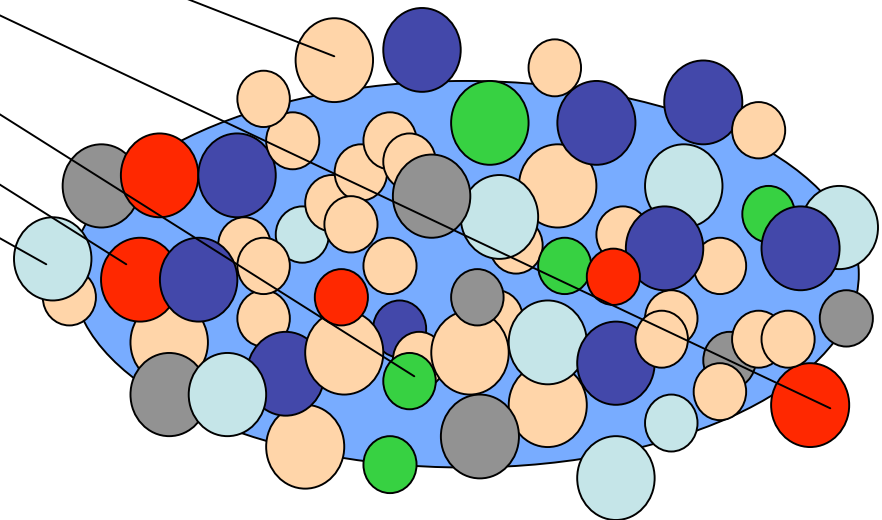
Resources are Scattered across the Internet



Digital Libraries Offer Coordinated Access



**NSDL
Repository**





Why Not Just Use Google?

The image shows a screenshot of a Google search for 'Venus' in a browser window. The search results page displays the Google logo, search bar with 'Venus', and navigation links. A blue bar at the top indicates 'Searched the web for Venus' and 'Results 1 - 10 of about 3,220,000. Search took 0.10 seconds.' The search results are categorized under 'Science > Astronomy > Solar System > Venus'. Several search results are visible, including news items and informational pages. Red annotations highlight specific elements: a red circle around the number '3,220,000' in the search results bar, a red circle around the domain 'www.solarviews.com' in the first search result, and a red circle around the domain 'www.venuszine.com' in the second search result. Red arrows point from these circles to red text questions on the right side of the page. The browser's address bar and various icons are visible at the top of the window.

Google™ Venus Google Search

Web Images Groups Directory News

Searched the web for **Venus**. Results 1 - 10 of about 3,220,000. Search took 0.10 seconds.

Category: [Science > Astronomy > Solar System > Venus](#)

News: [Clijsters, Venus, Davenport headline Day 3 at Big W](#) - Sports Network - 3 hours ago
[Venus faces busy 1st day](#) - Indianapolis Star - 15 hours ago
[Venus on Red Satin: Salvador Dalí's House in Queens](#) - New York Times - Jun 21, 2003
Try Google News: [Search news for Venus](#) or [browse the latest headlines](#)

Venus
Venus. The Bringer of Peace **Venus** is the second planet from the Sun and the sixth largest. **Venus'** orbit ... [Starry Night. More about Venus. ...](#)
[seds.lpl.arizona.edu/nineplanets/nineplanets/venus.html](#) - 14k - [Cached](#) - [Similar pages](#)

Venus Introduction
Venus was named after the Roman goddess of love and beauty, but is now known to be very different from Earth. ... [Venus Introduction. ...](#)
Description: From "Views of the Solar System".
Category: [Science > Astronomy > Solar System > Venus](#)
[www.solarviews.com/ferg/venus.htm](#) - 32k - [Cached](#) - [Similar pages](#)

Venus
Erase Errata perform at South by Southwest. Photo by Snapcult. Message Boards.
Got something you're dying to say? Say it in our message boards. ...
Description: [Focuses on women in music with an emphasis on independent artists. Site provides additional information...](#)
Category: [Arts > Music > Women in Music > Magazines](#)
[www.venuszine.com/](#) - 10k - [Cached](#) - [Similar pages](#)

Magellan Mission to Venus
Description: News and images on the **Venus** radar mapping mission terminated in 1994.
Category: [Science > Technology > ... > Missions > Unmanned > Venus > Magellan](#)
[www.jpl.nasa.gov/magellan/](#) - [Similar pages](#)

Venus
Venus. **Venus** Fact Sheet Images of **Venus** - from the Catalog ... Missions to **Venus**.
Magellan - NASA **Venus** Radar Mapping Mission (1989-1994) Pioneer ...
[nssdc.gsfc.nasa.gov/planetary/planets/venuspage.html](#) - 7k - [Cached](#) - [Similar pages](#)

Do I have time to look through 3.2 million search results, most of which are not related to Science and Math education?

Will I have to pay for resources at a .com? Will the science be accurate?

Not relevant to Science or Math education.

Web Images Groups Directory News
Searched the web for **Venus**. Results 11 - 20 of about 3,220,000. Search took 0.12 seconds.

Venus
Please click to enter New and used full-figured clothing for women sizes 14 and up. Store Hours Tuesday - Thursday Noon - 8pm ...
www.venusclothes.com/ - 6k - [Cached](#) - [Similar pages](#)

The Planet Venus
... Earlier Views of **Venus**. In earlier times, there was considerable speculation ... its conjectured inhabitants. Modern views of **Venus**. In the last 30 ...
Description: Details on this planet.
Category: [Science](#) > [Astronomy](#) > [Solar System](#) > [Venus](#)
csep10.phys.utk.edu/astr161/lect/venus/venus.html - 4k - [Cached](#) - [Similar pages](#)

Venus - [[Translate this page](#)]
Estas recibiendo este mensaje porque hemos detectado que tienes una versión antigua del programa que usas para navegar la Internet. ...
www.venus.com.ar/ - 4k - [Cached](#) - [Similar pages](#)

Solar System Exploration: Bodies: Venus
Romanticized as the morning and evening star, **Venus** is actually a cauldron of blistering heat and noxious gases! ...
solarsystem.nasa.gov/features/planets/venus/venus.html - 33k - [Cached](#) - [Similar pages](#)

Plus Size Clothing, Plus Size Modeling & Venus Diva Attitude
Plus size clothing in all sizes and styles, free plus size modeling seminars and resources, curvy lifestyle, curvy health and more -- The **Venus Divas!** ...
Description: A virtual community for women and teens sizes 12+. Offers information and instruction on plus-size...
Category: [Business](#) > [Arts and Entertainment](#) > ... > [Modeling](#) > [Resources](#)
www.venusimaging.com/ - 53k - [Cached](#) - [Similar pages](#)

www.pantheon.org/mythica/articles/v/venus.html
[Similar pages](#)

Amazon.com: Books: Men Are from Mars, Women Are from Venus: A ...
Men Are from Mars, Women Are from **Venus**: A Practical Guide for Improving Communication and Getting What You Want in Your Relationships, John Gray. ...
www.amazon.com/exec/obidos/tg/detail/-/006016848X?vi=glance - 77k - [Cached](#) - [Similar pages](#)

Venus Envy | Welcome page
Venus Envy is a Women's book, health, and sex store in Halifax, Nova Scotia, Canada. **Venus Envy** is an education-oriented sex shop and book store. ...

Inappropriate content for student viewing in a classroom setting




NSDL Search Results for

[← Previous Results](#)

(Displaying results: 21 - 40 of 336)

[Next Results →](#)

Title/Description	Resource Format	Found in Collection
Venus This section of the Windows to the Universe web site provides information and images about Venus inc ... more info [Archived Version]	[text] [image]	
Earth/Venus Rotation Movie This site provides the learner with a short video of the rotation of Earth and Venus. more info [Archived Version]	[text] [image] [video]	
Earth/Venus Rotation Movie This site provides the learner with a short video of the rotation of Earth and Venus. more info [Archived Version]	[text] [image] [video]	
A General Purpose Rule Language as the Basis of a Query Optimizer We present an overview and initial performance assessment of a rule-based query optimizer written in ... more info [Archived Version]		
Integrating Database Concurrency Control into the Venus Rule Language This paper describes a practical means of allowing rule-based applications to execute against standa ... more info [Archived Version]		
Gamma-Ray Burst Arrival-Time Localizations: Simultaneous Observations by Ulysses, Pioneer Venus Orbiter, SIGMA, WATCH, and PHEBUS Comment: Accepted for publication in the Astrophysical Journal Supplements, May 2000 more info [Archived Version]	[text]	arXiv
Rummaging through Earth's attic for remains of ancient life Comment: 51 pages, 6 tables, 4 figures more info [Archived Version]	[text]	arXiv
Why are there no oceans on the surfaces of Venus and Mars? Segment: #15 of 33, start 0:23:47.467, duration = 0:1:27.888 more info [Archived Version]	[video] [interactive]	
Asteroids in the Inner Solar System I - Existence Comment: 20 pages, 21 figures, Monthly Notices (in press) more info [Archived Version]	[text]	arXiv

<p>Asteroids in the Inner Solar System II - Observable Properties Comment: 16 pages, 11 figures, Monthly Notices (in press). Higher quality figures available at http: ... more info [Archived Version]</p>	[text]	
<p>Interactive exploration and modeling of large data sets: A case study with Venus light scattering data We present a system where visualization and the control of the simulation are integrated to facilita ... more info [Archived Version]</p>		
<p>The Solar System Our solar system consists of a star we call the Sun, the planets Mercury, Venus, Earth, Mars, Jupite ... more info [Archived Version]</p>	[text]	
<p>Ice On Venus This resource is part of the Science Education Gateway (SEGway) project, funded by NASA, which is a ... more info [Archived Version]</p>	[text] [image]	
<p>Ice On Venus This resource is part of the Science Education Gateway (SEGway) project, funded by NASA, which is a ... more info [Archived Version]</p>	[text] [image]	
<p>Far-ultraviolet Spectroscopy of Venus and Mars at 4 Å Resolution with the Hopkins Ultraviolet Telescope on Astro-2 Comment: 8 pages, 5 figures, accepted for publication in ApJ, July 20, 2000 more info [Archived Version]</p>	[text]	
<p>Planet Venus project (PV1) The objective of this project is to let students discover the principles of measurement of realistic ... more info [Archived Version]</p>	[text] [pdf]	
<p>Two-Proton Correlations from Pb+Pb Central Collisions Comment: LaTeX, 8 pages, 3 figures, Talk presented at the 15th Winter Workshop on Nuclear Dynamics, ... more info [Archived Version]</p>	[text]	
<p>Imaging the Imagined Modeling with Math and a Keyboard: the art and science of modeling; the math, theory and practice of ... more info [Archived Version]</p>	[image] [interactive]	
<p>Blue Planet Blue Planet more info [Archived Version]</p>		
<p>Two-proton correlations from 158 AGeV Pb+Pb central collisions Comment: RevTeX style, 6 pages, 4 figures, 1 table. More discussion are added about the structure on ... more info [Archived Version]</p>	[text]	

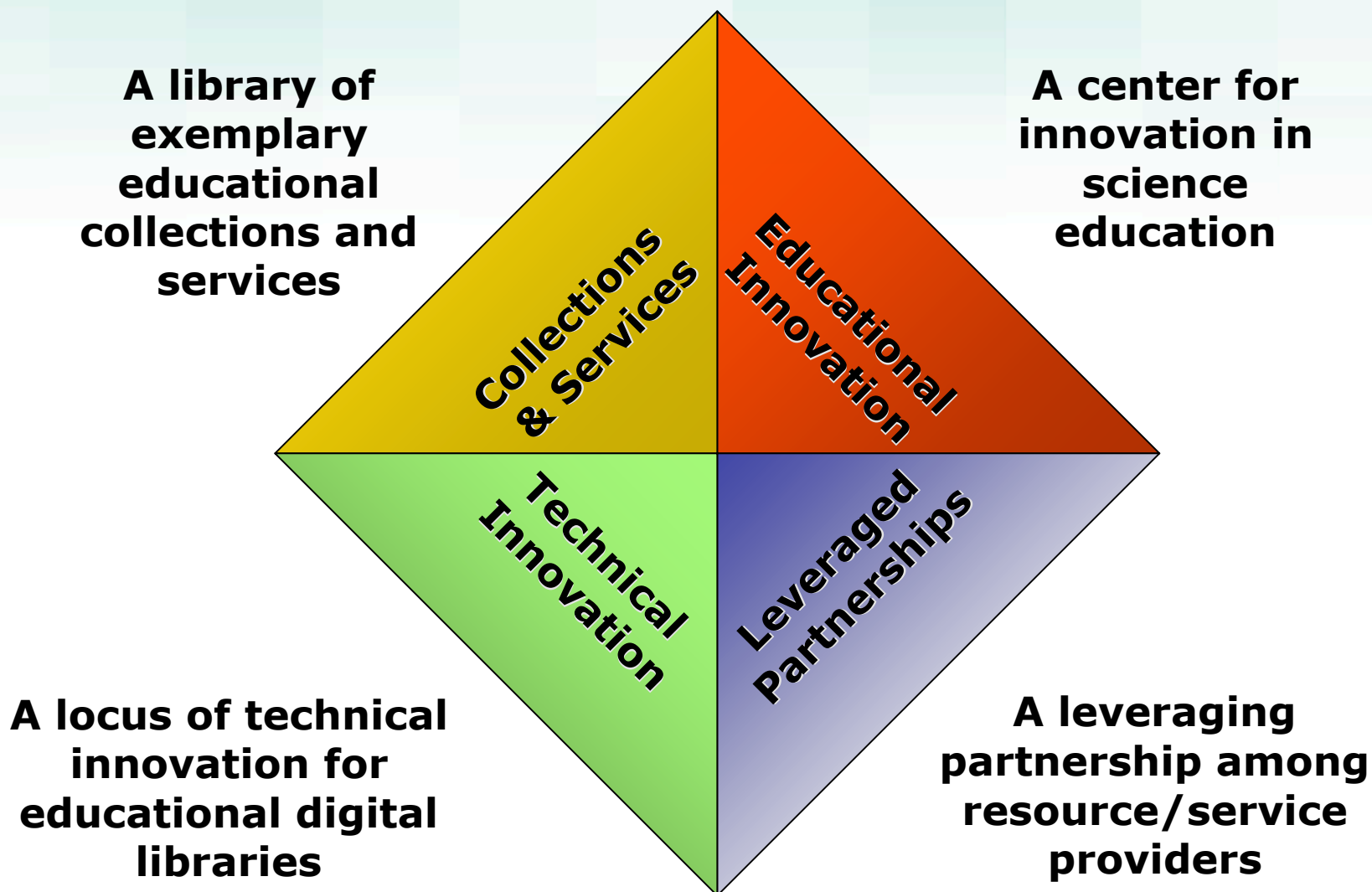
[Back to the Top](#)

(Displaying results: 21 - 40 of 336)

[← Previous Results](#)

[Next Results →](#)

Four Facets of NSDL



*NSDL is a work in progress being built
by community participation...*

Technology
Experts

Students

Scientists

Professional
Organizations

Teachers

Universities

Museums

Content
Providers

Research
Laboratories

Publishers

Government
Agencies

NSF

Division of Undergraduate Education



**NATIONAL
VISITING
COMMITTEE**

CORE INTEGRATION

UCAR

CORNELL

COLUMBIA

NSDL COMMUNITY

POLICY

EVALUATION

**COMMUNITY
SERVICES**

CONTENT

TECHNOLOGY

**SUSTAIN-
ABILITY**



STANDING COMMITTEES



NSDL Grant Funding

Pathways

Assemblages of resources to serve a particular audience

Services

Tools supporting NSDL users and developers

Targeted Research

Investigations of new technologies and evaluations of educational impact

NSDL's 184 funded awards represent 99 different institutions in 33 states and the District of Columbia.

Next Solicitation anticipated for release in January 2005 with award notification expected by October 2005.

NSDL Offers Educators...

An organized point of access to the Internet for high quality resources supporting STEM education

A source for accurate, appropriate, and relevant information for educators and learners at all levels

Peer reviewed materials

Resources that support standards

NSDL Offers Researchers...

An opportunity to disseminate information about methods, data, and results in multimedia and interactive environments

A connection to educators and learners who want access to real scientists and the processes of scientific research

A resource for discovering tools that enable data interoperability and visualization

NATIONAL SCIENCE DIGITAL LIBRARY

 Search

NSDL PORTALS

Middle School Portal

Middle School Math, Science, and Technology presented by Eisenhower National Clearinghouse

[What are NSDL Portals?](#)

FUTURE PORTALS

Teachers' Domain Pathways to Science

Rich media for K-12 teaching presented by Teachers' Domain at WGBH

The Math Gateway

Undergraduate Mathematics presented by the Mathematical Association of America

The Computational Science Education Reference Desk

Computational Science presented by the Shodor Education Foundation

The Applied Mathematics and Science Education Repository

Community Colleges presented by Internet Scout at the University of Wisconsin



The Nation's online library of resources for science, technology, engineering, and mathematics education and research.



EXPLORE

**AskNSDL**

[How? What? Why?... Try the NSDL ask-an-expert service.](#)

**New In The Library**

[The National Academies Press](#)

**Resource Of Interest**

[Mathematics and Elections](#)

HEADLINES

**NSDL Annual Meeting**

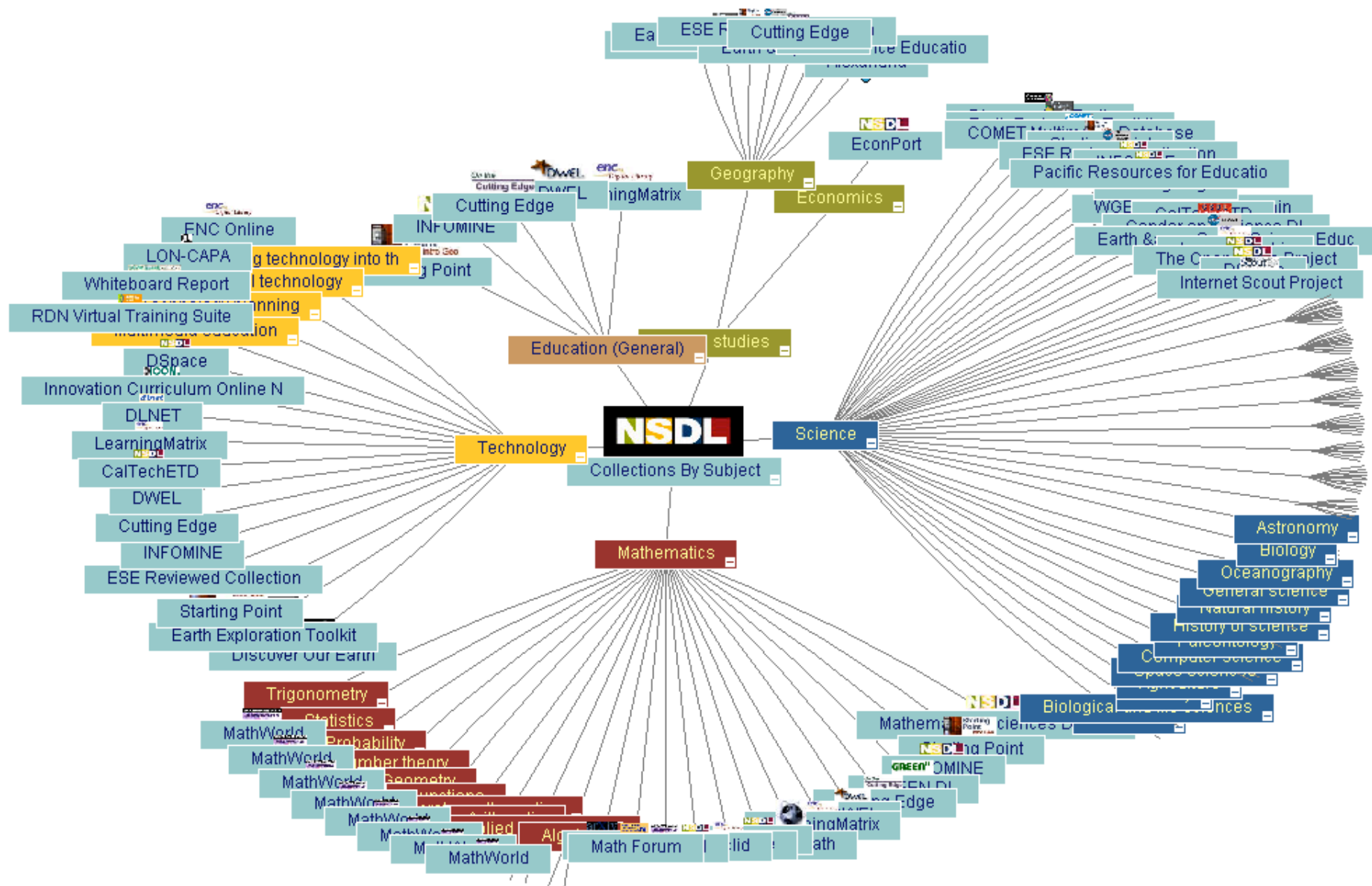
[November 15-17](#)

[Hyatt Regency McCormick Place, Chicago, Illinois](#)

**New Projects Awarded!**

[Four Pathways and nineteen other grants awarded by NSF](#)

NSDL Collections By Subject



Alphabetical List of Collections

NSDL At a Glance

Browse NSDL Collections

Select Collections beginning with:

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [All](#)

Title ▲ ▼ 275 Collections

- | | |
|--|--|
| <p>About - Science</p> <p>A listing of About.com's science resources.</p> | <p>Collection Info</p> |
| <p>Access Excellence</p> <p>Access Excellence, launched in 1993, is a national educational program that provides high school biology and life science teachers access to their colleagues, scientists, and critical sources of new...</p> | <p>Collection Info</p> |
| <p>Access Excellence: the site for health and bioscience teachers and learners</p> <p>This site contains bioscience classroom activities; teaching and learning strategies; health and bioscience news; a biotech section; a student resource section with science and math links and a...</p> | <p>Collection Info</p> |
| <p>Advanced Placement Digital Library</p> <p>This collection is created for teachers and students engaged in teaching and learning of science at the Advanced Placement (AP) and Pre-AP level. Each of the web-based educational resources is...</p> | <p>Collection Info</p> |
| <p>Air Quality Index (AQI) -- AIRNow</p> <p>The AQI tells you how clean the air is and whether it will affect your health. EPA, state, and local agencies work together to report current and forecast conditions for ozone and particle pollution....</p> | <p>Collection Info</p> |
| <p>Alexandria Digital Library Project</p> <p>Welcome to the Alexandria Digital Library Project. The name Alexandria comes from the library of Alexandria, Egypt, which was considered the center of all knowledge/learning. No one place now can...</p> | <p>Collection Info</p> |
| <p>All About Birds</p> <p>Cornell's Lab of Ornithology in Ithaca, New York provides comprehensive information on identifying birds, where to "bird" and how to report observations, including a dynamic online guide that...</p> | <p>Collection Info</p> |
| <p>AllCommunity.com - Science</p> <p>This site consists of listing of AllCommunity.com's science links. The AllCommunity Network comprises millions of web surfers/online users who have come together to pool their Consumer Power. The...</p> | <p>Collection Info</p> |
| <p>American Memory from the Library of Congress</p> <p>American Memory consists of primary source and archival materials relating to American culture and</p> | <p>Collection Info</p> |

Resource of Interest
New in the Library
Whiteboard Report
NSDL Scout Report
Online Safari
Services & Tools
Partner Libraries
Science Pictures
Labview

Resource of Interest

Each month NSDL staff offer a sampling of interesting resources to demonstrate the diversity and innovation of NSDL collections and services.

[BRIDGE, the Ocean Sciences Education Teacher Resource Center](#)

Bridge, the Ocean Sciences Education Teacher Resource Center, is a growing collection of on-line marine education resources. It provides educators with accurate, useful, content-correct and content-current marine and data information on global, national, and regional marine science topics, and gives researchers a contact point for educational outreach. --From the [DLESE Collection](#)



[Culturally Situated Design Tools](#)

This web site resource allows the learner to explore math through culturally-focused crafts and other creative activities. --From the [Ethnomathematics DL Collection](#)



[Water on the Web](#)

Water on the Web (WOW) offers unique opportunities for high school and first year college students to learn basic science through



Resource of Interest
 New in the Library
 Whiteboard Report
 NSDL Scout Report
 Online Safari
 Services & Tools
 Partner Libraries
 Science Pictures
 Labview

LabView

Automatic Enhancement of Metadata

With very little expenditure of effort we could improve on some of the metadata in the NSDL, using automatic methods. This demonstration shows how existing technologies such as metadata scraping tools and a Static OAI Gateway could be used to augment NSDL metadata.



Discovering existing NSDL resources to be improved using a "Bookmarklet."



Searchable Star Tree of NSF NSDL Awards

Searchable Star Tree of NSF NSDL Awards

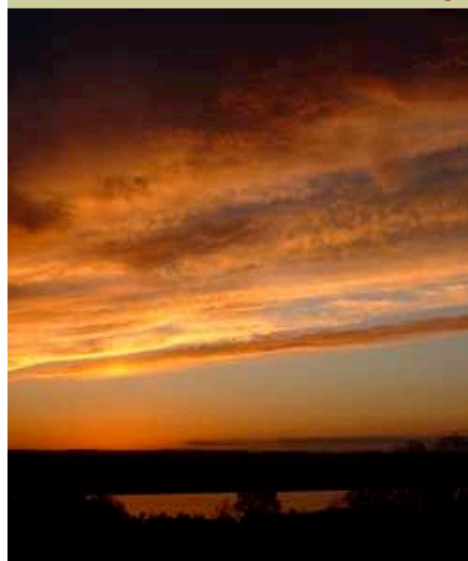
The NSDL Awards Star Tree works in Internet Explorer on a Windows box, and in Netscape on a Macintosh (but not as well). It does not work with IE (5.2), Safari or Opera on the Mac.

The Star Tree is organized by subject. Specifically, by GEM subjects present in collection records in the NSDL Metadata Repository, when those collection records matched an NSF NSDL award.

All leaf nodes represent NSF awards and are named by award number and by title; hovering over a leaf node will display a description of the project. When an NSF award matches no collection record, it is filed under the "unknown" subject. Non-matching award nodes in the graph are hot linked to the appropriate NSF award page; awards that match a collection are hot linked to the URL provided in the collection record. Note that most NSF awards do *not* have collection records in the MR

Today in the NSDL
Groups
Documents
Handbooks
Whiteboard Report
Templates
NSDL Email list

Today in the NSDL



01/08/2004 Brilliant fall sunset over Cayuga Lake in upstate New York. Photograph copyright Dean Eckstrom 2003.

**". . . man will occasionally
stumble over the truth, but
usually manages to pick himself
up, walk over or around it, and
carry on. "**
-- Winston Churchill

Systems Status

**All Systems have been
reported stable in past 15 minutes.**

Community Highlights

NSDL CI Middle School emphasis . . .

Project Profile

Read about the Collaboration Finder . . .

Suggest a Resource

Contribute your collection ideas . . .



AskNSDL

 Search

AskNSDL

Find More Information

TEACHERS: Create a Class Login

Help for Experts



20 questions

Send your question to our 300+ scientific and technical professionals from research, industry, government, and academia.

[BEFORE YOU ASK A QUESTION](#)

[ASK A QUESTION](#)

[RECEIVE YOUR REPLY](#)

Q: Why does it snow? How do snowflakes form? [Answer](#)