NSDL

THE NATIONAL SCIENCE DIGITAL LIBRARY

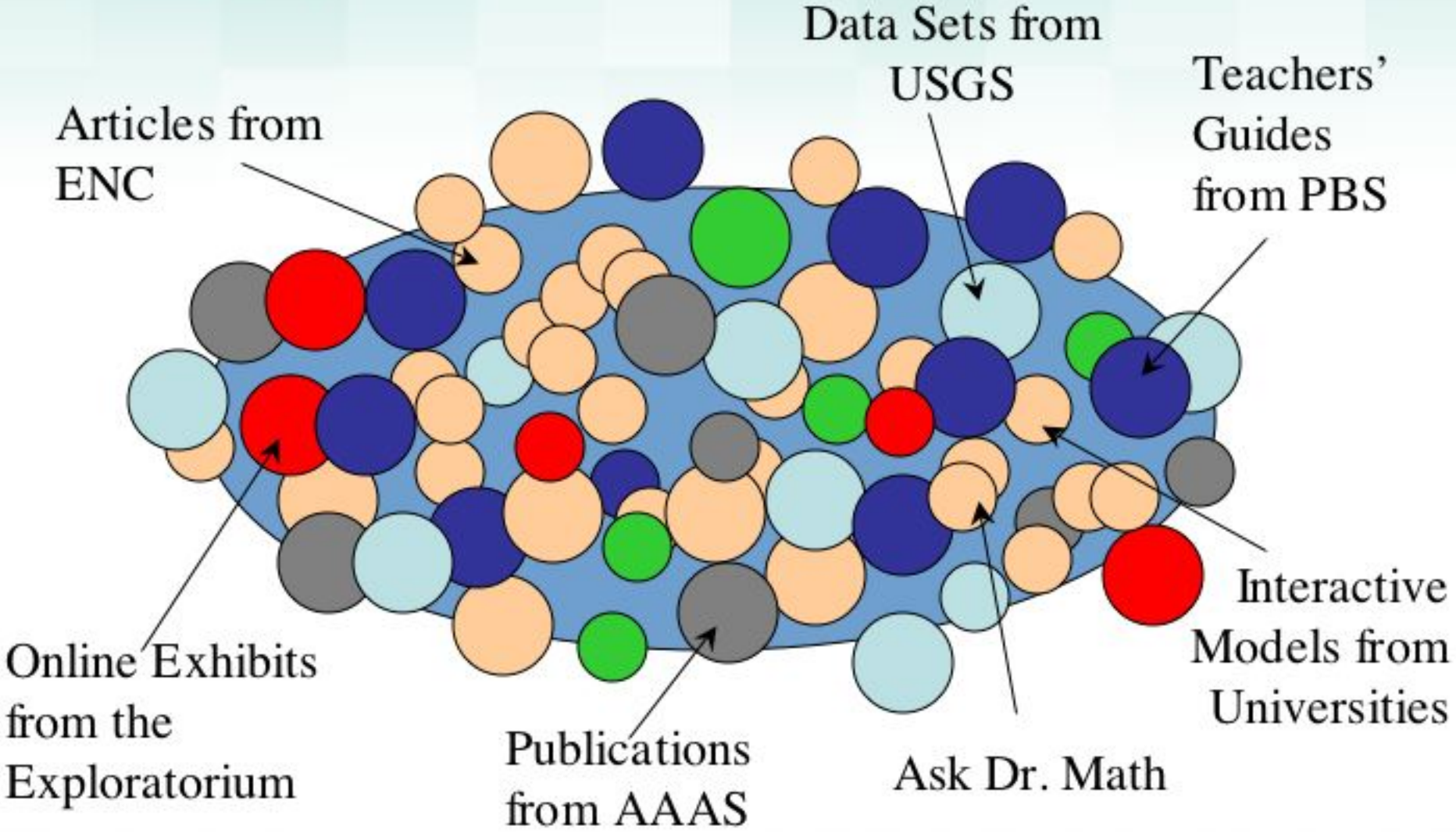
Digital Libraries: New Tools for Teaching and Learning

Susan Van Gundy

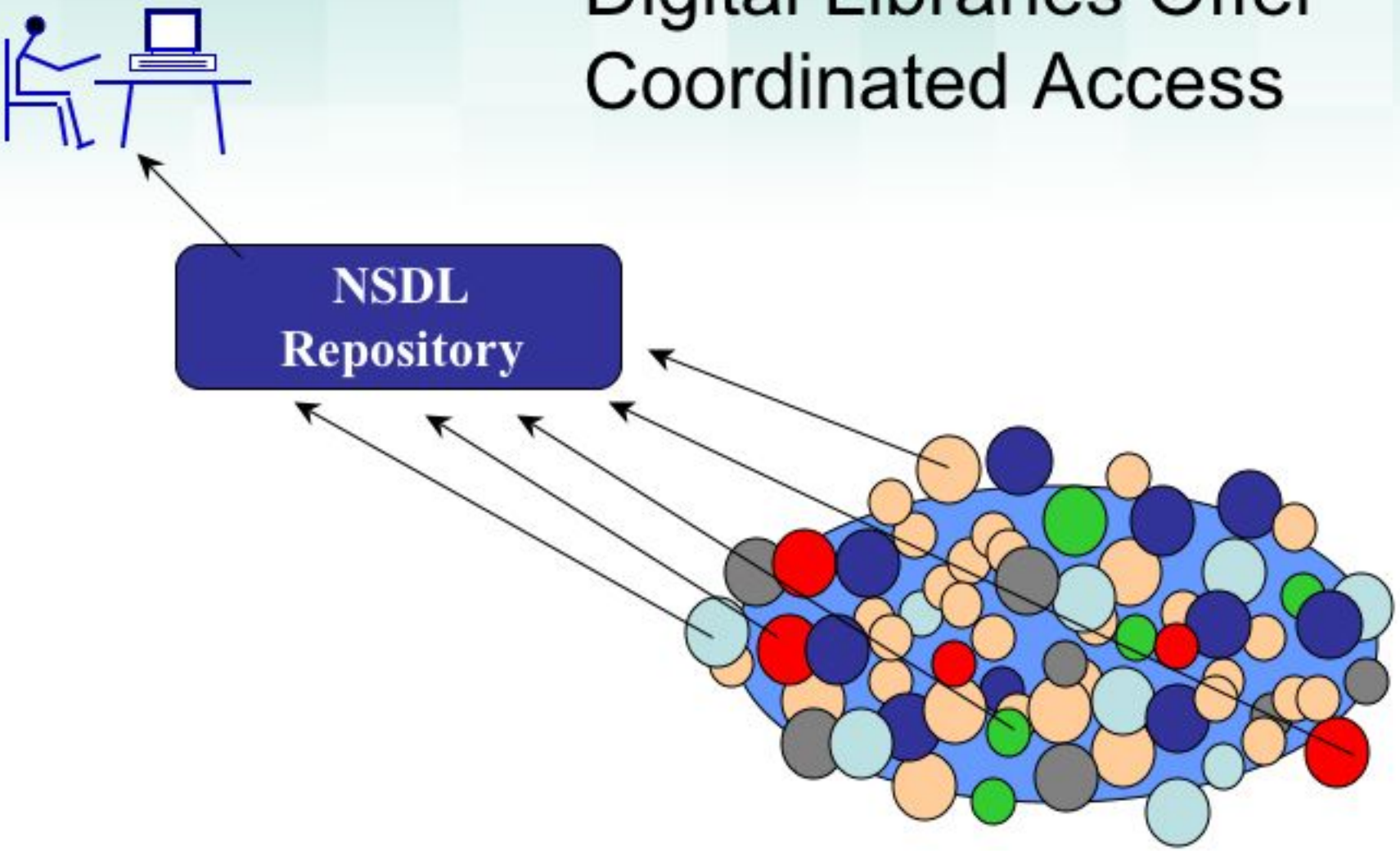
Director of Education and Outreach

What is a Digital Library?

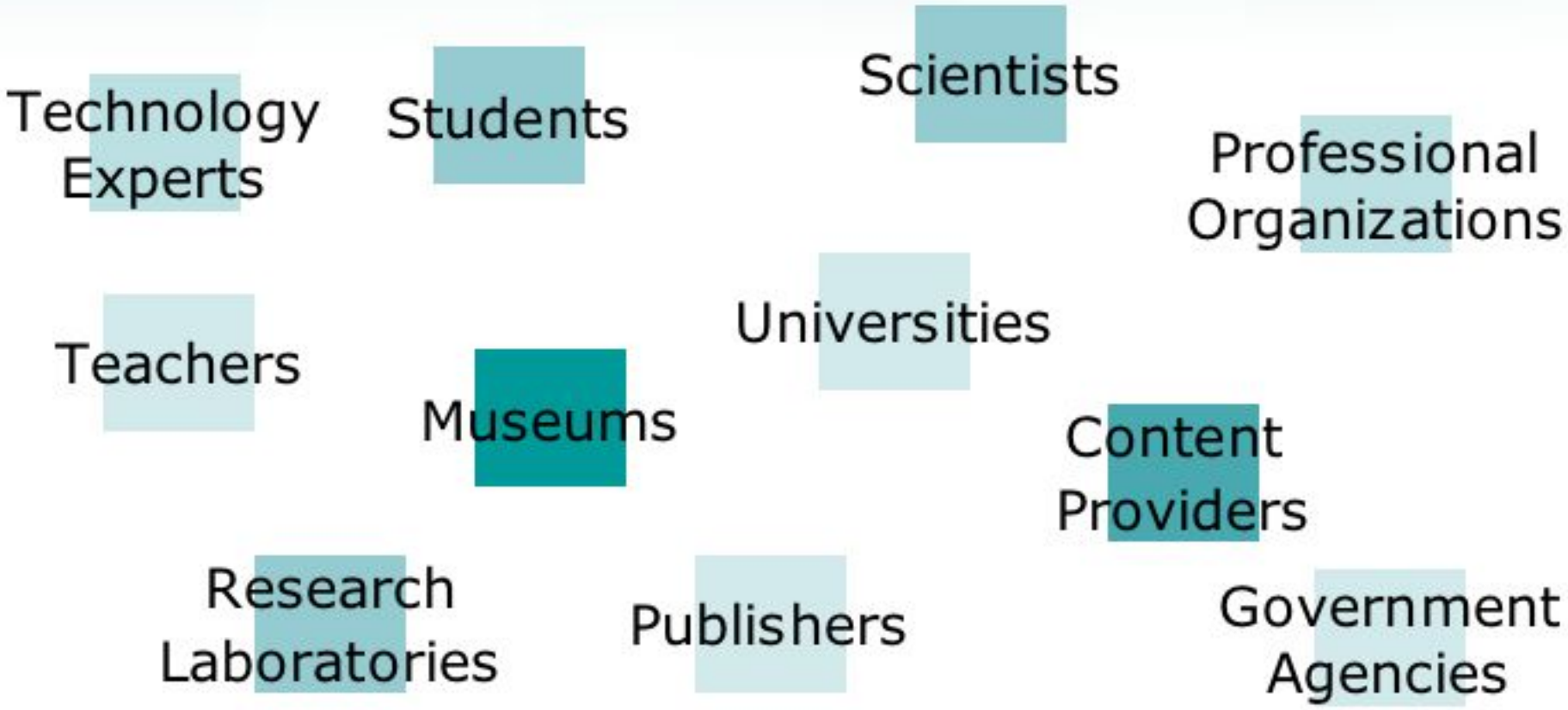
Resources are Scattered across the Internet



Digital Libraries Offer Coordinated Access



NSDL is a work in progress being built by community participation…



NSDL Grant Funding

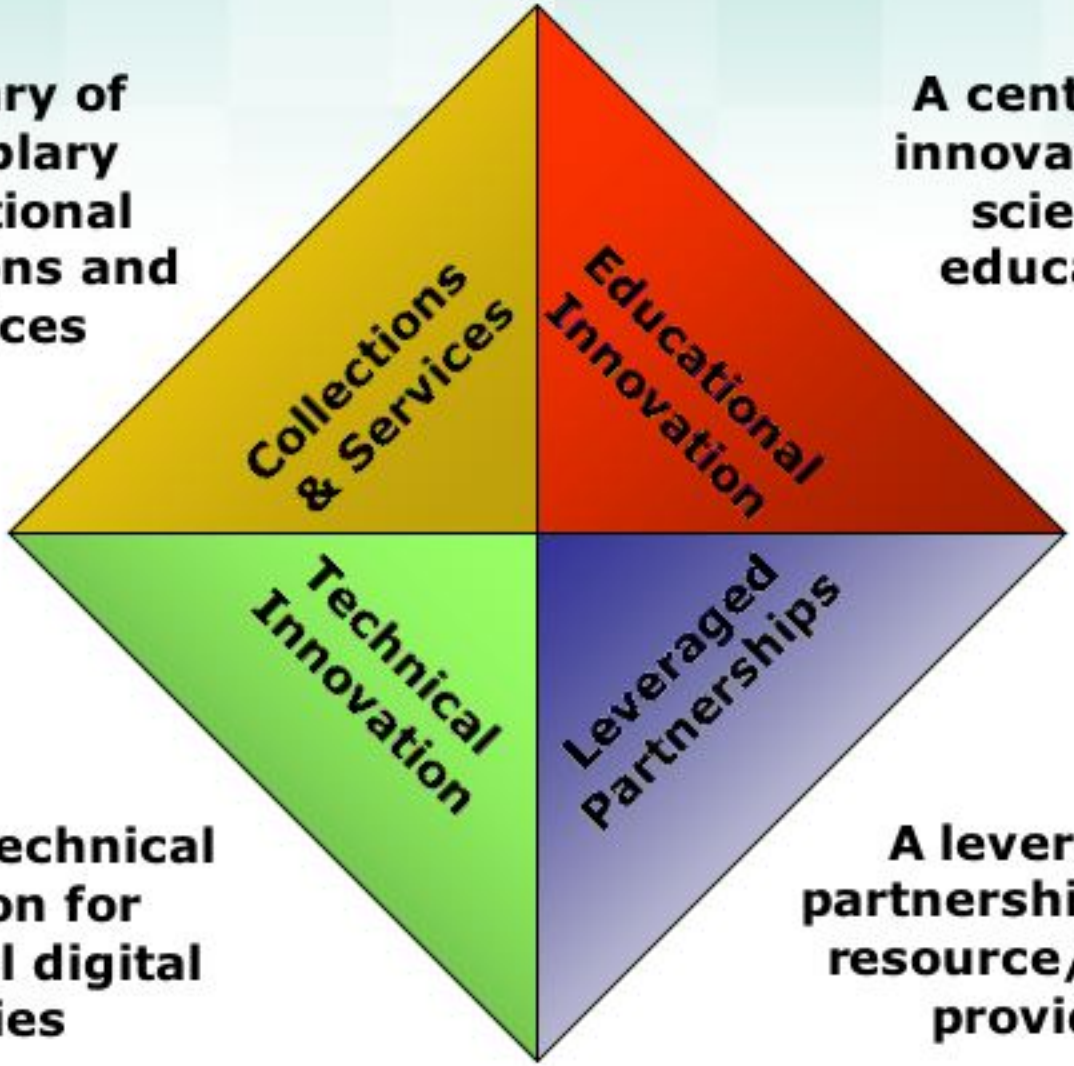
Pathways	Services	Targeted Research
Assemblages of resources to serve a particular audience	Tools supporting NSDL users and developers	Investigations of new technologies and evaluations of educational impact

- NSDL's 159 funded projects represent 92 different institutions in 32 states and the District of Columbia.
- Next Solicitation due April 2004 with notification expected by October 2004.

Four Facets of NSDL

A library of exemplary educational collections and services

A center for innovation in science education



A locus of technical innovation for educational digital libraries

A leveraging partnership among resource/service providers

NSDL in Support of the K-12 Community

An organized point of access to the Internet

A trusted source for high quality, relevant, accurate, and appropriate information

Peer reviewed materials

Resources that support standards

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

The National Science Foundation's online library of resources for science education …

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

NSDL in Support of the K-12 Community

Collaborative online environments for dialogue, document sharing, and idea exchange

Connections to real scientific data, scientists, and the scientific process

F R E E

Google

Advanced Search Preferences Language Tools Search Tips

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 Dali'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/eng/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

Web | Images | Groups | Directory | News

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

Venus
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. ...

Description: Mission description and overview, with related links.
Category: Science > Technology > Space > Missions > Unmanned > Venus
nssdc.gsfc.nasa.gov/planetary/pioneer_venus.html - 10k - Cached - Similar pages
[More results from nssdc.gsfc.nasa.gov]

:: RADIO **VENUS** :: - [Translate this page]
www.venus.com.py/ - 2k - Cached - Similar pages

Venus Swimwear - bikinis, bathing suits, sportswear
Venus Swimwear swimsuits and bikinis. **Venus** Swimwear has mix and match bikinis. **Venus** sells swimwear, bikinis, sportswear, and bathing suits. ...
Description: Mix and match swimsuits, bikinis, and accessories.
Category: Shopping > Clothing > Swimwear
www.venusswimwear.com/ - 15k - Cached - Similar pages

Fotos de sexo gratis, videos porno y mucho más... en Canalvenus - [Translate this page]
Portal XXX para adultos con; noticias, jovencitas, anal, oral, lesbianas, videos porno, miles de fotos, contactos con fotografías, pornografía gay, historias ...
Category: Mature Content
www.canalvenus.com/ - 2k - Cached - Similar pages

The **Venus** Project - The Redesign of a culture
The **Venus** Project offers a comprehensive plan for social reclamation in which human beings, technology and nature will be able to coexist in a long-term ...
Description: Plan to redesign global society using high technology directed by an ethic of sustainability: essays,...
Category: Society > Future > Projects
www.thevenusproject.com/ - 17k - Cached - Similar pages

Gooooooooogle ▶
Result Page: 1 2 3 4 5 6 7 8 9 10 **Next**

Venus | Google Search | Search within results

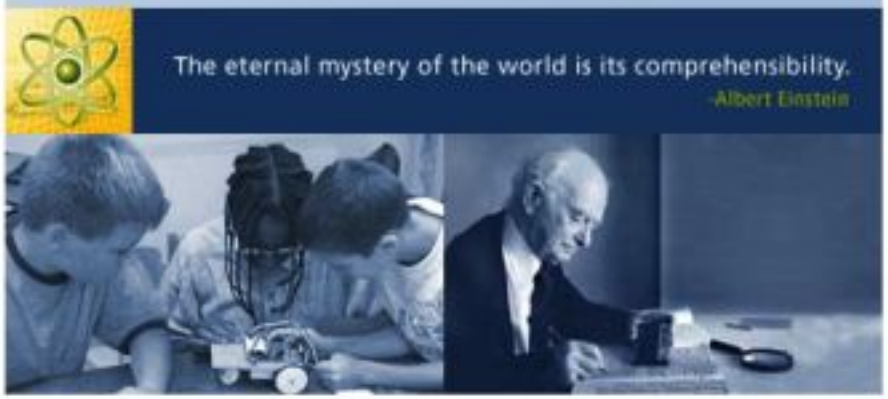
Dissatisfied with your search results? Help us improve.

Google Home - Advertise with Us - Business Solutions - Services & Tools - Jobs, Press, & Help

National Science Digital Library

Educational resources for science, techonology, engineering, and mathematics.

Funded by the National Science Foundation.



Resource of Interest

Build a DNA Molecule
This online click-and-drag simulation, part of the Genetic Science Learning Center, uses sound and interactive graphics effectively to introduce DNA building blocks. ...

New in the Library

Geotech. Rock & Water DL
The Geotechnical, Rock & Water (GROW) Digital Library was created by the University of Arizona's Department of Civil Engineering, Center for Campus Computing, University Library, and a host of other c ...

NSDL Headlines

GROW Project Wins Award and Recognition
October 2003-- The GROW project, has been named a Civil Engineering Coolsite by Emerald Abstracts. Only exceptional sites are included in Coolsites and are eligible to display this award. Emerald Ab ...

NSDL Search Results for

Venus SEARCH CLEAR SEARCH

← 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]	COMET
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]	NASA EDMall
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]	COMET
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]		NSDL
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]		NSDL
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]	informedia
Asteroids in the Inner Solar System I - Existence Comment: 20 pages, 21 figures, Monthly Notices (in press) more info [Archived Version]	[text]	arXiv

Asteroids in the Inner Solar System II - Observable Properties [text] arXiv
Comment: 16 pages, 11 figures, Monthly Notices (in press). Higher quality figures available at http: ... more info
[Archived Version]

Interactive exploration and modeling of large data sets: A case study with Venus light scattering data NSDL
We present a system where visualization and the control of the simulation are integrated to facilita ... more info
[Archived Version]

The Solar System [text]
Our solar system consists of a star we call the Sun, the planets Mercury, Venus, Earth, Mars, Jupite ... more info
[Archived Version]

Ice On Venus [text] [image] DLESE
This resource is part of the Science Education Gateway (SEGway) project, funded by NASA, which is a ... more info [Archived Version]

Ice On Venus [text] [image] COMET
This resource is part of the Science Education Gateway (SEGway) project, funded by NASA, which is a ... more info [Archived Version]

Far-ultraviolet Spectroscopy of Venus and Mars at 4 A Resolution with the Hopkins Ultraviolet Telescope on Astro-2 [text] arXiv
Comment: 8 pages, 5 figures, accepted for publication in ApJ, July 20, 2000 more info [Archived Version]

Planet Venus project (PV1) [text] [pdf] ICON
The objective of this project is to let students discover the principles of measurement of realistic ... more info
[Archived Version]

Two-Proton Correlations from PB+PB Central Collisions [text] arXiv
Comment: LaTeX, 8 pages, 3 figures, Talk presented at the 15th Winter Workshop on Nuclear Dynamics, ... more info [Archived Version]

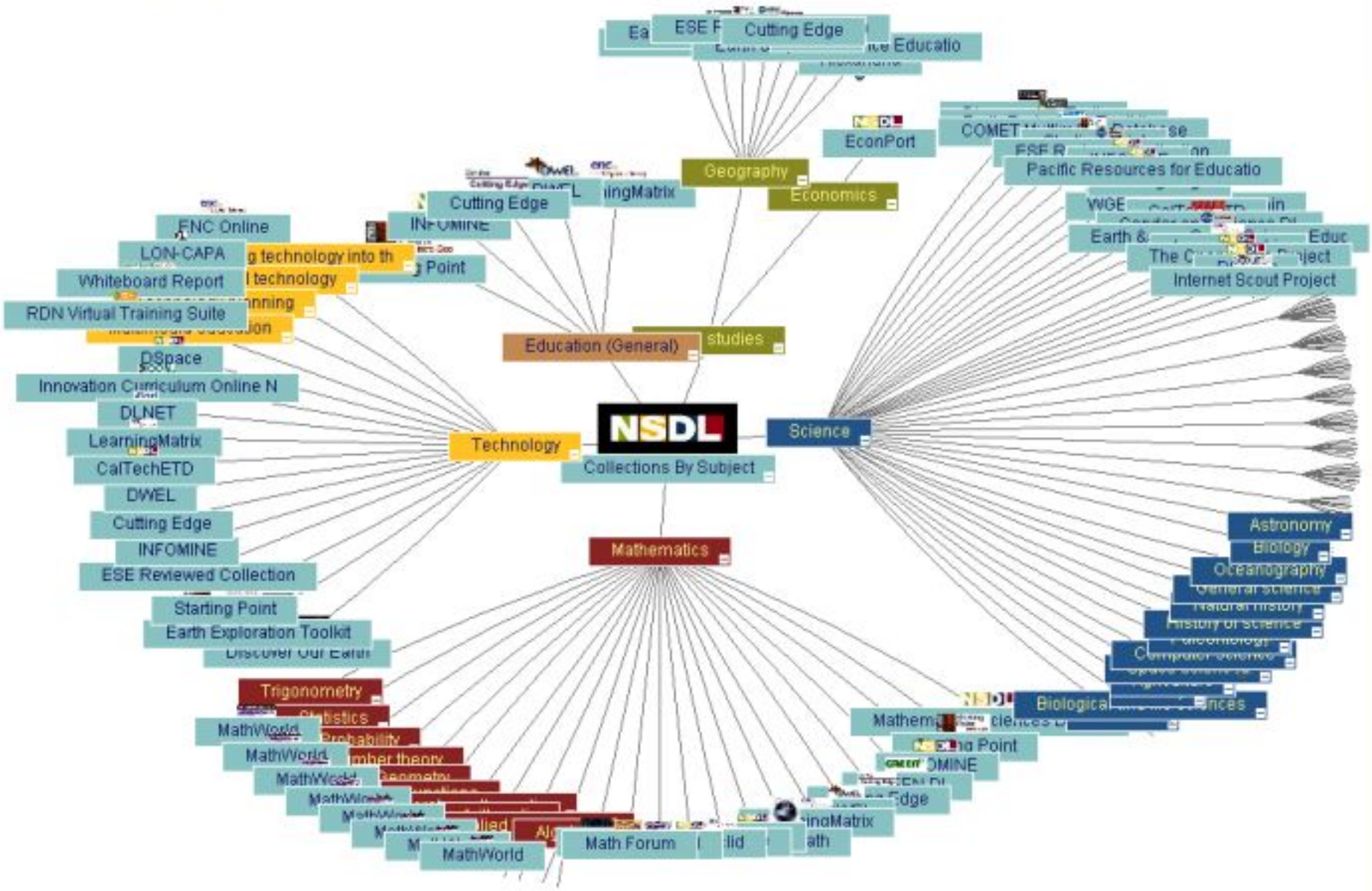
Imaging the Imagined [image] [interactive] Math Forum @ Drexel University
Modeling with Math and a Keyboard: the art and science of modeling; the math, theory and practice of ... more info [Archived Version]

Blue Planet
Blue Planet more info [Archived Version]

Two-proton correlations from 158 AGeV Pb+Pb central collisions [text] arXiv
Comment: RevTeX style, 6 pages, 4 figures, 1 table. More discussion are added about the structure on ... more info [Archived Version]

Back to the Top
← Previous Results
(Displaying results: 21 - 40 of 336)
Next Results →

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

About - Science — Collection Info
A listing of About.com's science resources.

Access Excellence — Collection Info
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...

Access Excellence: the site for health and bioscience teachers and learners — Collection Info
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...

Advanced Placement Digital Library — Collection Info
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...

Air Quality Index (AQI) -- AIRNow — Collection Info
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....

Alexandria Digital Library Project — Collection Info
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...

All About Birds — Collection Info
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...

AllCommunity.com - Science — Collection Info
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...

American Memory from the Library of Congress — Collection Info
American Memory consists of primary source and archival materials relating to American culture and

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

"... 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.

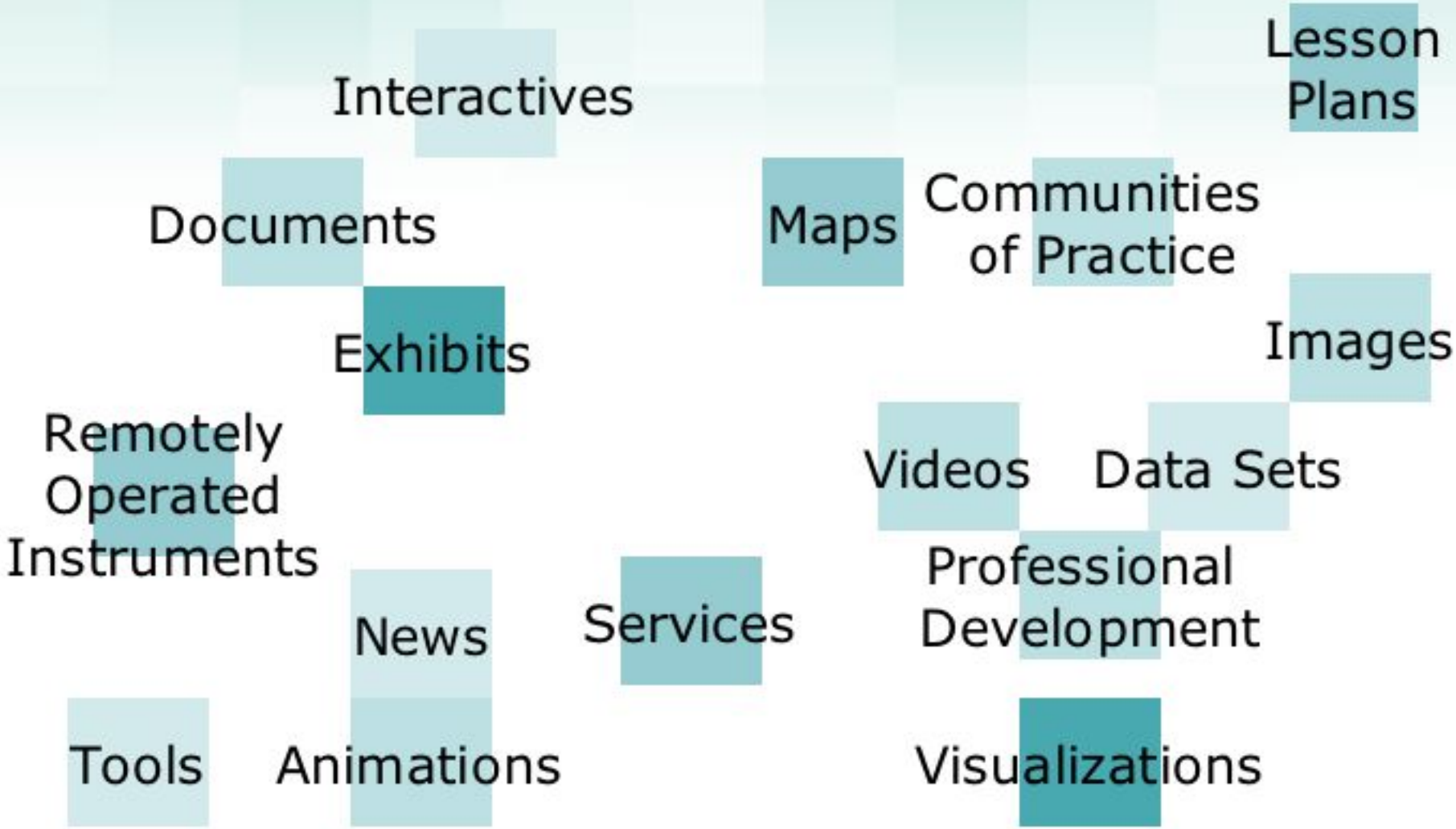
Community Highlights
NSDL CI Middle School emphasis . . .

Project Profile
Read about the Collaboration Finder . . .

Suggest a Resource
Contribute your collecton ideas . . .

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

NSDL Resources - *Examples…*



ENC Features
- Classroom Calendar
- Digital Dozen
- ENC Focus
- Lessons & Activities
- Ask ENC

Web Links
Explore online lesson plans, student activities, and teacher learning tools.

Curriculum Resources
Find detailed information about thousands of materials for K-12 math and science.

Education Topics
- Across the Curriculum
- Assessment
- Equity and Diversity
- Family and Community
- Implementing Technology
  - Framing the Context
  - Internet Projects
  - Online Learning Communities
  - Technology in the Classroom
  - Technology Training and Support
  - Selected Resources
- Innovative Curriculum Materials
- Inquiry & Problem Solving

Technology in the Classroom

Educators share how they use technology, including graphing calculators, motion detectors, and software, in their classrooms.

Beyond Point and Click: The Search for Gender Equity in Computer Games
Computer games have the power to educate. What does a good game--for both boys and girls--look like?

Handheld Technology: The Essential Ingredient in Teaching and Learning Mathematics
by Terese Herrera
Handheld computers that can solve equations with the push of a button naturally raise questions about what and how we teach mathematics. This educator believes this technology may be the key to richer mathematics content.

Learning in Motion
by Kathleen D. Hogan
This first-grade teacher believes in trying the newest tools and techniques to engage her students and help them learn.

Piloting the Navigator
by Laura K. Brendon
Math teachers take new classroom technology for a test drive.

The Shape of Things to Come
This veteran teacher describes how she and a colleague used computer software to teach geometric reasoning to elementary students.

T3-Teachers Teaching with Technology
This web site offers resources and information about professional developent courses to improve teachers' use of technology in the classroom.

Technology Can Help You Meet the Standards

FileSize: 60000 bytes

---

6. 

Title: Respiratory System

Description: A macrophage rests on the alveolar wall. It is difficult to differentiate between type I pneumocytes....

FileSize: 60000 bytes

Add to download folder

View full description

---

7. 

Title: Respiratory System

Description: Fetal lung showing developing airways and alveol....

FileSize: 60000 bytes

Add to download folder

View full description

---

8. 

Title: Respiratory System

Description: A small number of alveolar macrophages is found in alveolar spaces of normal healthy lungs. They are....

FileSize: 60000 bytes

Add to download folder

---

9. 

Title: Respiratory System

Description: Bronchus-associated lymphoid tis
lymphoid tissue in intermediate and ....

FileSize: 60000 bytes

---

10. 

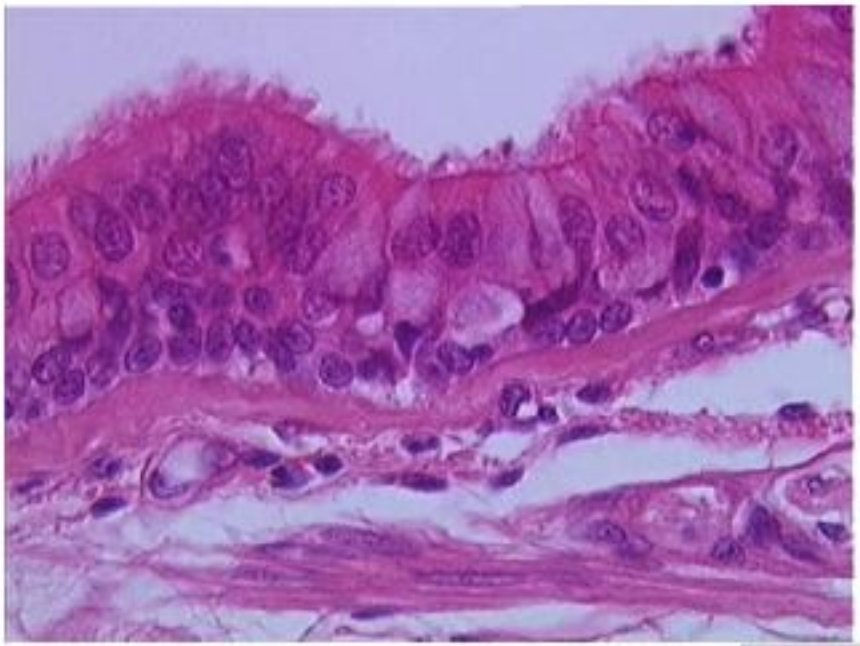
Title: Respiratory System

Description: This high power view shows the s
small bronchus. Remember t....

FileSize: 60000 bytes

Contact the HEAL team at: info@healcentral.org

http://www.healcentral.org/devcontent/collections/histology/82_40_1....



3 of 24 - Clipboard
Item collected.

The eSkeletons PROJECT

view: Cranium Ventral select another bone help

Lateral

Distal

GORILLA

morphology origins insertions articulations

Internet

The Gorilla Skeleton

to select the bone in the gorilla body that you want to view in detail. Once you
able to investigate various aspects of the bone as well as compare the gorilla
features to those of the human and baboon.

---

oose a bone to view (please choose only one):

ible

Thorax & Vertebrae

Hind Limb & Foot

---

k on this button to launch the bone viewer:

Launch Bone Viewer

E

human skeleton | baboon skeleton | gorilla skeleton | comparative anatomy

ALEXANDRIA DIGITAL LIBRARY | CDL | CALIFORNIA DIGITAL LIBRARY

ADL HOME • CDL HOME • HELP

QUICK PLACENAME SEARCH

Enter a simple, unqualified placename such as "Los Angeles".

Copper Mountain | Find

Advanced Placename Search

CATALOG SEARCH

1. Constraints

If multiple constraints are specified, they should be...

- (•) **AND**ed together
- ( ) **OR**ed together

2. Collection to search

UCSB Map and Imagery (MIL)

Browse the selected collection or all collections.

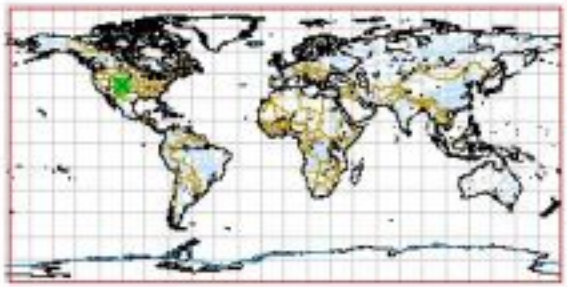
• Geographic region

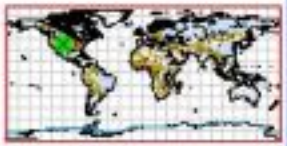
Use the map to the right to set the geographic extent of the search, or directly enter bounding coordinates below.

N

90

Map Browser





Click map to:

Recenter & Zoom in

Change location to:

–

Shape

Zoom Out In

Reset

1. **Feature Name**

Geographic Name Copper Mountain Ski Area

Source ID BGN-USGS-1

2. **Feature Type**

ADL Feature Type sports facilities

Feature Type Scheme ADL Feature Type Thesaurus

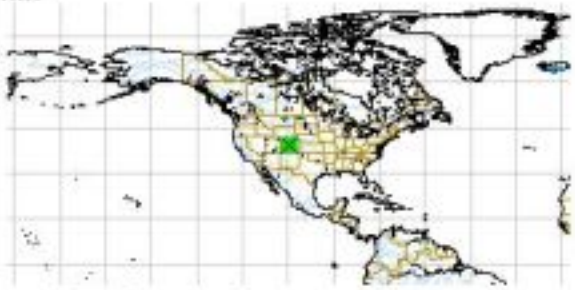
Other Classification Term LOCALE

Classification Scheme GNIS Feature Classes

3. **Spatial Reference**

Geographic Location

Footprint



Geometry Type Bounding Box

West-bounding Coordinate W 106° 10' 10"

East-bounding Coordinate W 106° 09' 39"

North-bounding Coordinate N 39° 30' 01"

South-bounding Coordinate N 39° 29' 11"

Measurement Method The footprint was derived from the set of points provided by GNIS for this feature.

Measurement Accuracy The footprint does not necessarily represent the actual extent of the feature.

Teachers Domain: Atmospheric Oxygen - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://www.teachersdomain.org/3-5/sci/life/oate/oxygen/index.html Go Links

TEACHERS' domain

Media Resources for the Classroom and Professional Development

Search Life Science 3-5 or refine your search

TD Home → Science → Life Science 3-5 →
Organisms and Their Environments → Resource

User: Susan

Open a folc

Atmospheric Oxygen

Type: **Interactive**
Format: Flash
View

Save... to My Resources.

Most organisms have evolved to live in an environment that has a very specific set of conditions. Those creatures that breathe air, for example, have come to rely on that air containing about 21 percent oxygen. If this percentage were to change suddenly, most organisms would have difficulty coping with the new conditions. In this feature, adapted from *Interactive NOVA: "Earth,"* see how important not only the presence but the precise amount of oxygen is to life on Earth.

Item No.: sci.life.oate.oxygen
Topics Covered: Organisms and Their Environments
Lesson Plan: Effects of Environmental Change
Produced by:

Printer-Frienc

Oxygen is critical
the process of cell
energy. The oxyge
even though most
commonly referred
lungs.

Some of the smalles
directly through th
these cells by simpl
most concentrated
environment const

Many multicellular
for example, respir
oxygen directly th
of cells, many of w
that pump blood th
then on to the inne

Despite its simplici
very limiting. For e
which is why earth
respiration also lim
acquire enough ox
total volume is quit
than on the surfac
those internal cells

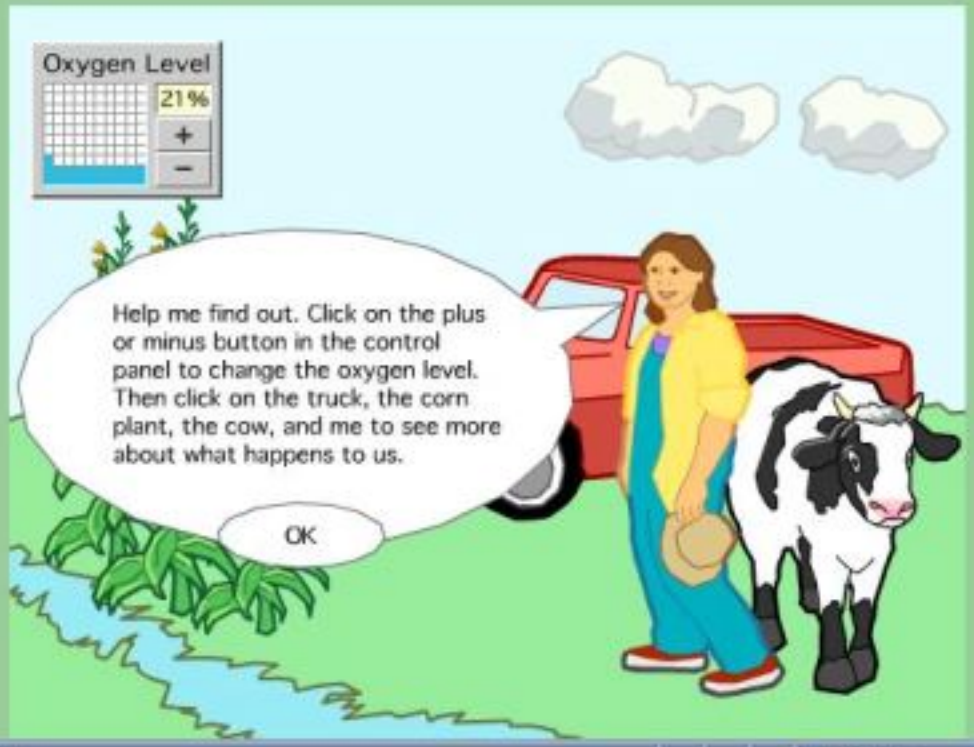
Teachers' Domain: Atmospheric Oxygen - Microsoft Internet Explorer

Back Search Favorites Media

TEACHERS' domain

Atmospheric Oxygen

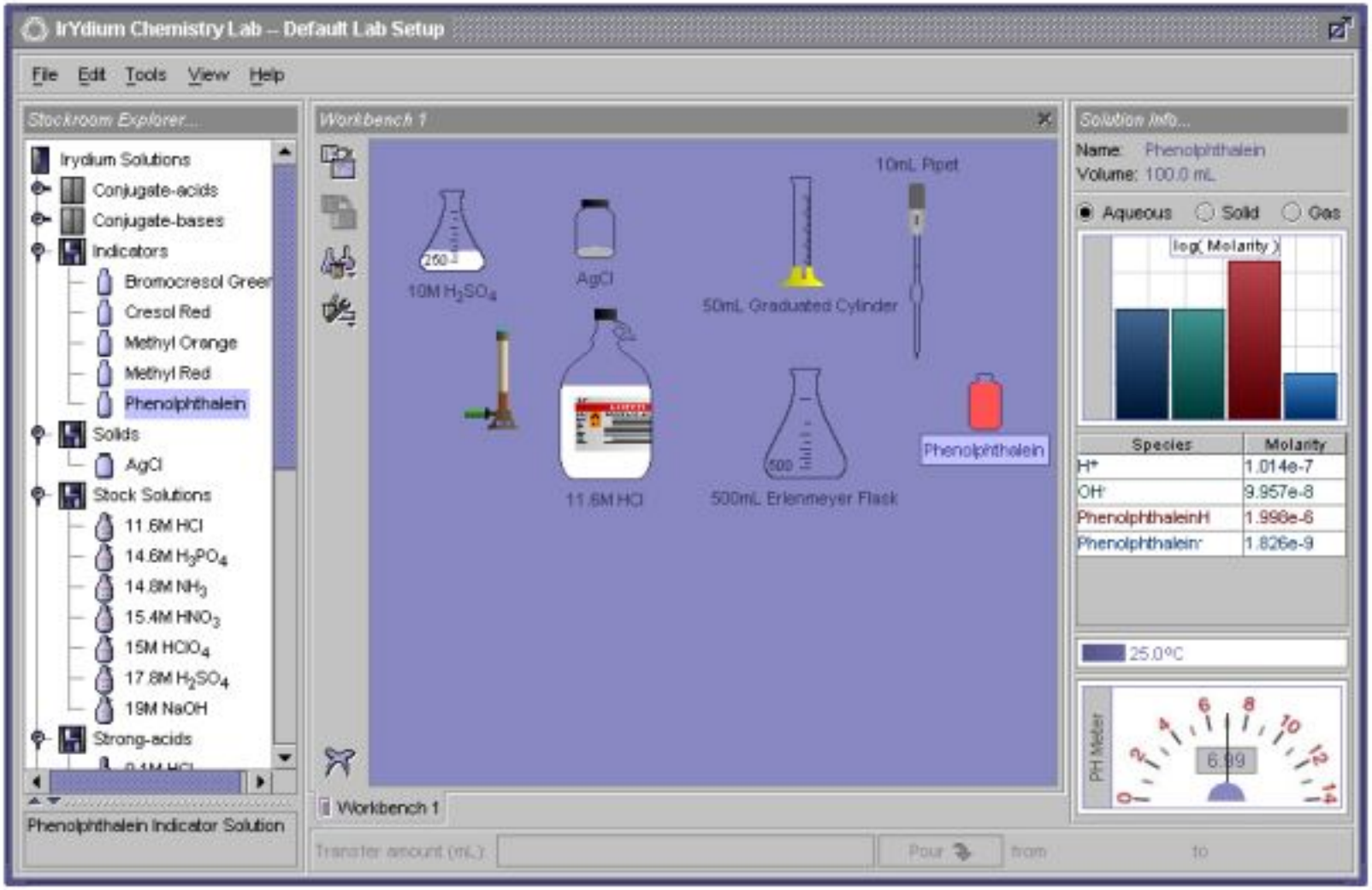
Close window



Done Internet

Internet

<< Return to the Previous Page



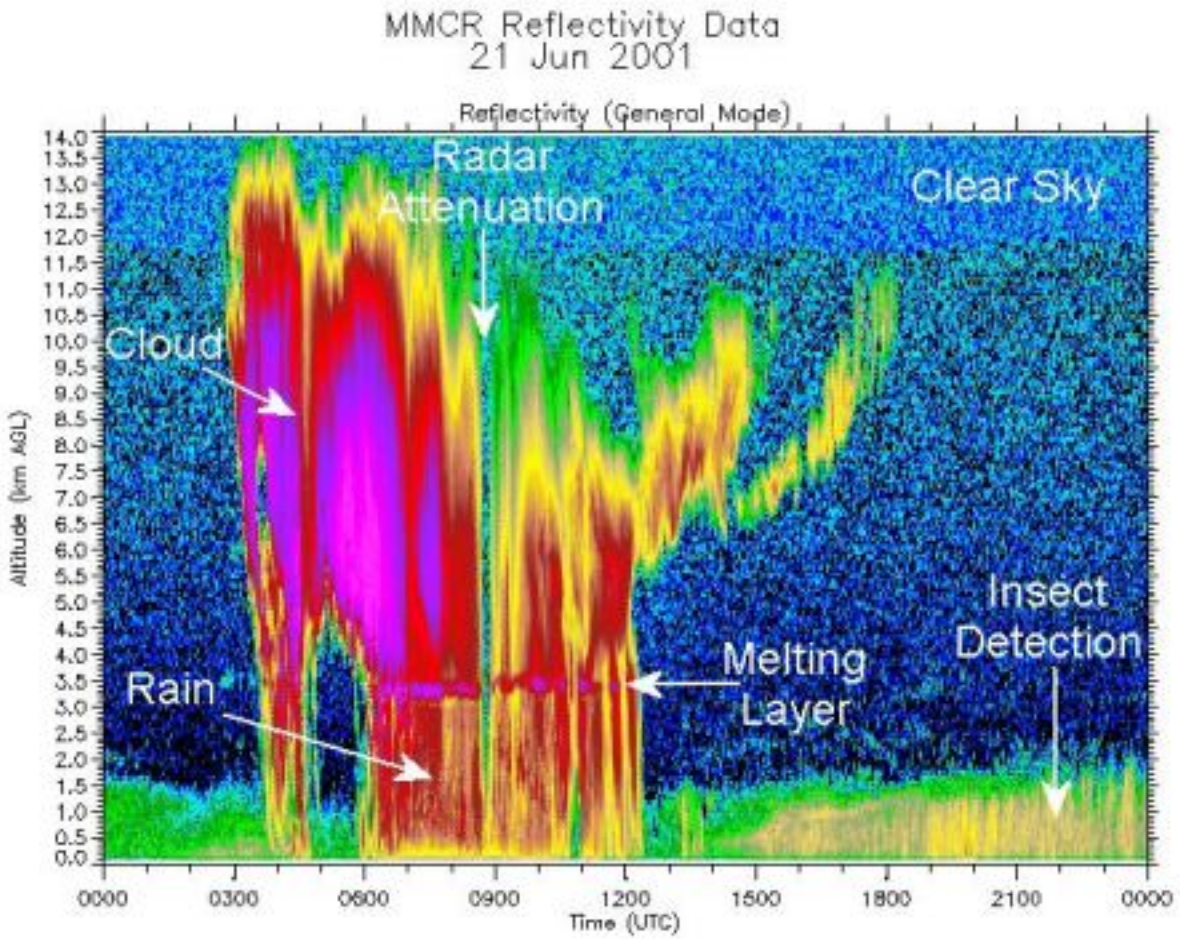
Tips

mmcr
sgp C1
2003 1
go

mmcr C1
2003/06/26
- reflectivity BL
- velocity BL
- spectral width
- Boundary Laye
- reflectivity SL
- velocity SL
- spectral width
- Sensitive Laye
- reflectivity GL
- velocity GL
- spectral width
- General Layer
- reflectivity QA
- velocity QA
- spectral width
- QA General La
- reflectivity RL
- velocity RL
- spectral width
- Robust Layer
- sgpmmcrcalC1
- sgpmmcrmome
- sgpmmcrmome
- sgpmmcrC1.a1

- [mmcrcode.tar]

Example Image



Other Links
Return to NSDL

What is a digital library?

Question:	*What is a digital library?*
Asked by:	*Primary*
Asked on:	*Wednesday, August 28, 2002*
Category:	The NSDL: Use, Build, Join
Question Purpose:	short answer
Audience:	Undergraduate

Answer

Date: 8/28/2002 4:30:00 PM
User: Primary Administrator

A digital library is a coherent, organized collection of resources, usually accessible on the Web. These resources are more than a collection of online texts, and often represent artifacts that cannot be represented in print, such as large data sets. Digital libraries typically provide services such as search, browse, help and online community discussions. They may appear to be a single entity, but often link to other libraries or information services in an effort to present a unified view of a collection to the end user. Digital libraries often provide added value by supporting activities that brings together collections, services, and people in support of the full life cycle of creation, dissemination, use, and preservation of data, information, and knowledge.

A more formal definition:

digital library: "A managed environment of multimedia materials in digital form, designed for the benefit of its user population, structured to facilitate access to its contents, and equipped with aids to navigate the global network… with user and holding totally distributes, but managed as a coherent whole."
- Mel Collier, International Symposium on Research, Development, and Practice in Digital Libraries 1997

Back

ICON. Innovation Curriculum Online Network

- FAQs
- Events
- User Survey
- Documents
- Privacy Policy
- Contact us
- Login

ICON, or the **Innovation Curriculum Online Network**, is a central source for information dealing with technology and innovation, and serves as an electronic roadmap to connect users, such as teachers, professors, students, museum staff, and parents with information about the human built and innovated world.

ICON also provides a broad and deep collection of technological literacy resources for teachers and educators, digital resources informed by educationaland digital library standards, necessary descriptors, metadata, and developmentally-appropriate content for technological literacy support. The collection is populated and classified according to the Standards for Technological Literacy.

My ICON Favorites .

View collections of your favorite resources (registered user only). If you are not a registered user, register with ICON.

Simple Search

Find a resource on: Search Tips

Submit

☐ pre-K	☐ K	☐ 1	☐ 2
☐ 3	☐ 4	☐ 5	☐ 6
☐ 7	☐ 8	☐ 9	☐ 10
☐ 11	☐ 12	☐ 13	☐ 14
☐ 15	☐ 16	☐ >16	

Advanced Search | Browse by Tech. Concept

ITEA enc NSDL

Haida Mask

Dogfish sharks figure prominently in the legends and art of the Native Americans of the northwest coast of the United States and Canada. Images of dogfish, such as this Haida mask, are seen in jewelry, totem poles and masks.

900 Exposition Blvd., Los Angeles, CA 90007
(213) 763-DINO

Questions:
General Information:
info@nhm.org

Technical Support
webmaster@nhm.org

Alsos
digital library for nuclear issues

Home > References

video: 1-8 of 8

Creator	Title	Mark
Cable News Network (CNN)	A Journey Through America's Cold War Heartland	☐
Center for Defense Information (CDI)	Center for Defense Information	☐
Greenpeace	Greenpeace Nuclear Campaign Overview	☐
Nuclear Age Peace Foundation	Nuclearfiles.org	☐
Sandia National Laboratories	Sandia National Laboratories: Programs	☐
Think Quest	Fourteen Days in October: The Cuban Missile Crisis	☐
U.S. Department of Energy	Energy and National Security	☐
Walker, Gregory (gwalker@jump.net) / Federation of American Scientists	Trinity Atomic Website	☐

Save Marked

Narrow Search Saved Entries

Alsos Home
About the Library
Frequently Asked Questions
Historical Overview
Scientific/Technical Overview
National Advisory Board
The Original Alsos Mission
Credits
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THE NSDL SCOUT REPORT FOR MATH, ENGINEERING, & TECHNOLOGY

June 20, 2003 -- Volume 2, Number 12

Printable version

In This Issue

Research

Education

General

Dominoes Activity

Student Page

Teacher Lesson Plan

☆ Use Matt Wringe's applet, Bricks Activity, to think about this problem. ☆

Part I

In an introductory activity your group will receive the following materials:

1. 2 grid sheets (one for each pair of students)
2. 30 dominoes (15 for each pair of students) or print and cut out these paper dominoes
3. Scissors (if necessary)
4. Recording sheet for discussion questions

Work in pairs within your group to

show if it is possible to cover the 6X5 grid with your dominoes.

Take the time given to thoroughly complete the task.

Compare answers with the other people in your group.

1. Did everyone have the same answer?
2. If yes, can you find more than one answer?
3. If no, how many possible answers there are?
4. Describe how the dominoes cover the grid.

Use case scenarios

Contributed by the community (Posted 02/09/00)

These scenarios and an analysis of actual users' work practices were compiled into a set of use cases that are being used to drive the library's design.

Contents:

1. Oceanography linked to other disciplines, assessment

I am designing a network based course in oceanography. I have already created pedagogically strong materials in plate tectonics, but would like to see what specialists in climate and seawater chemistry research have created for their general education students. In particular, I would be looking for data rich, inquiry activities that students can complete about 6 hours. I want to evaluate these materials and may adopt, or adapt portions of them for my own students. I am interested in how students are assessed in these environments and would be looking for good machine-gradeable quiz questions, as well as activities that would be hand-graded. Wouldn't it be nice if an instructor could select from a bank of online gradeable homework, quiz, or study questions, have his/her class answer the selected questions online, and have a report of the results of the students' work mailed to the her/him in a database importable format, after a specific date?

Dr. William A. Prothero
Dept. of Geological Sciences
University of California, Santa Barbara
Santa Barbara, CA. 93106
prothero@magic.ucsb.edu

Virtual Telescopes in Education

Home

Create
- Proposal
- Observation
- Analysis
- Paper

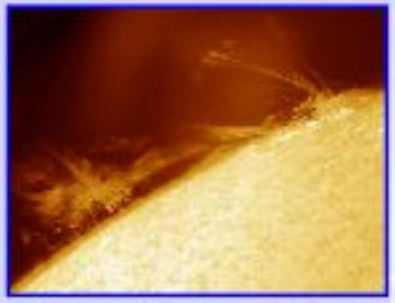
Notes
- My Lab Notebook
- Add a note

Images
- My Images
- Upload Image

This site currently works best with the latest versions of Netscape and Internet Explorer. More on Browsers...

Are you a student who would like to do an astronomy research project?
If so, you came to the right place.

VTIE helps students create astronomy research projects by:



Astronomy Picture of the Day, Courtesy of NASA

- Providing a **Glossary Tool** to help you understand astronomy vocabulary words. ***More about the Glossary Tool...***
- Providing a **Lab Notebook** so you can keep track of what you are doing. ***More about the Lab Notebook...***
- Helping you set up your astronomy observations with a **Proposal Generation Interface**. ***More about the Proposal Generation Interface...***
- Providing access to online databases of astronomy **Observations**. ***More about online Observations...***
- Providing an **Image Viewer**. ***More about the Image Viewer...***
- Providing a **Paper Writing Tool** to help you write your report. ***More about the Paper Writing Tool...***
- Saving your work for you in case you can't write on the computer you are using. ***More about saving your work on the VTIE computer...***

Description of VTIE

- Providing a **Glossary Tool** to help you understand astronomy vocabulary words. If you are searching the web for information about astronomy, and find a web page you like, cut and paste the web address into the Glossary Box on the right sidebar. The astronomy words will be highlighted, and you can run your mouse over them to see the definitions.
- It is a good idea to keep track of what you are doing when you are doing a science experiment. You can use the Lab Notebook to make

Glossary

Glossary Note: please read

Insert a Web address to Glossarize

Glossarize

Look up Word

Lookup

Links
- Galaxy links

Contact
- Comments?
- Credits

“From” View of Technology in Education

- Students learn “from” technology
- Knowledge in transmitted from the media to the student
- Learners passively receive messages
- Occasional and artificial interactions are sufficient
- “Experts” control instructional design
- Materials are thought to be best when they are “teacher proof”

"With" View of Technology in Education

- Students learn "with" technology
- Knowledge is constructed, represented, and shared by student
- Learners collaborate in research and problem solving
- Interaction is authentic
- Instructional design is shared among learners, teachers, and "experts"

Digital Libraries as Cognitive Tools

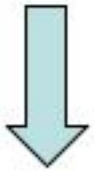
"Cognitive tools are any technologies that enhance thinking, problem solving, and learning"

- Thomas Reeves

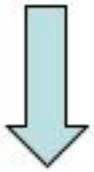
"A Model to Guide the Integration of the WWW as a Cognitive Tool in K-12 Education"

Model of Learning Environment Factors [adapted from Reeves]

Learning Conditions (Inputs)



Learning Processes



Learning Outcomes

Digital Libraries as Cognitive Tools

DLs can help address different learning conditions (inputs) :

- Aptitude and Individual Differences (including learning styles, prior experiences, attitudes, disabilities)
- Cultural Habits of Mind
- Origin and Strength of Motivation

Digital Libraries as Cognitive Tools

DLs can facilitate learning processes by providing opportunities for:

- Constructing Learning
- Task Ownership
- Sense of Audience
- Access to Quality Resources
- Instructor Support
- Collaborative Support
- Metacognitive Support

Digital Libraries as Cognitive Tools

DLs can facilitate learning outcomes:

- Knowledge and Skills
- Robust Mental Models
- Higher Order Outcomes (curiosity, creativity, confidence, love of learning)

How to get involved…

SEARCH the Library at http://nsdl.org

Ask NSDL your questions about science, educational resources, or about the Library at http://asknsdl.askvrd.org

CONTRIBUTE resources.

SIGN UP to receive our electronic newsletter, NSDL Focus on Education at http://comm.nsdlib.org/mailmain/listinfo/whiteboard-subscribers

Thank You!

THE NATIONAL SCIENCE DIGITAL LIBRARY

Susan Van Gundy
303-497-2946
vangundy@ucar.edu