Science NetLinks
AAAS

www.sciencenetlinks.com

Science NetLinks Mission Statement

Science NetLinks, produced by the American Association for the Advancement of Science (AAAS) — the world's largest general science organization, is your comprehensive online resource for quality science content. Science NetLinks strives to provide a wealth of engaging, standards-based materials, such as lesson plans, interactive tools and expert-reviewed Web sites.

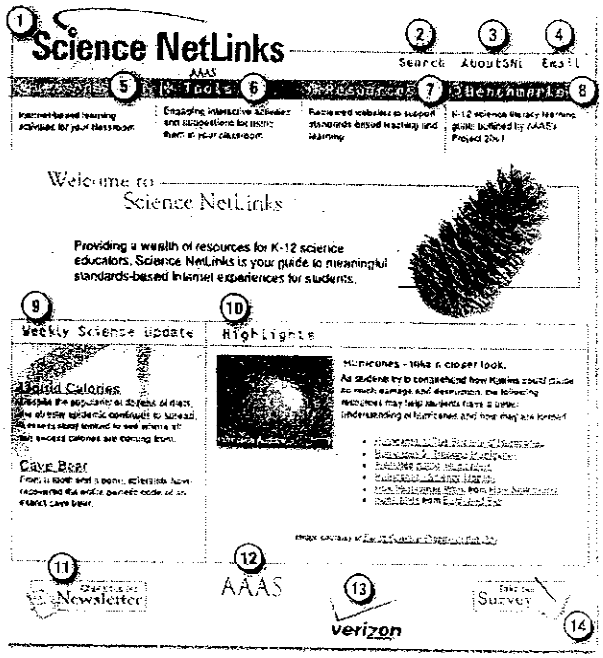
Using Science NetLinks

From the Thinkfinity homepage, click on the Partner site logo, or type **www.sciencenetlinks.com** in the address line of your Web browser, and click Enter or press Return.

The Science NetLinks homepage appears.

The following numbered list corresponds to the screenshot on the right showing the features of the homepage.

1. Explore **Science NetLinks**, a showcase of standards-based, online resources for K–12 educators.
2. **Search** Science NetLinks and all of the Thinkfinity Partner sites.
3. Learn **About SNL**, its key site features, updates and site developers.
4. Send feedback via **Email**, or sign up to receive the Science NetLinks Newsletter.
5. Discover Benchmark-aligned **Lessons** that incorporate research-based instructional strategies to support student learning.
6. Go to **Tools** for engaging interactive activities and suggestions for using them.
7. Find the best-reviewed **Resources** for your science teaching needs.
8. Learn about the K–12 **Benchmarks** *for Science Literacy* with age-appropriate learning goals.
9. Explore Science Updates, an engaging topical lesson that includes audio clips highlighting the latest in science research.
10. Check out **Highlights** for a showcase of featured content.
11. Review the **Science NetLinks Newsletter** for science education news and resources.
12. Visit the American Association for the Advancement of Science (AAAS) site.
13. Access the Verizon Foundation Web site.
14. Take Our Survey to help improve the site.



AAAS Mission Statement:

American Association for the Advancement of Science (AAAS) seeks to advance science and innovation throughout the world for the benefit of all people. To fulfill this mission, the AAAS Board has set these broad goals:

- Foster communication among scientists, engineers, and the public
- Enhance international cooperation in science and its applications
- Promote the responsible conduct and use of science and technology
- Foster education in science and technology for everyone
- Enhance the science and technology workforce and infrastructure
- Increase public understanding and appreciation of science and technology
- Strengthen support for the science and technology enterprise

Science NetLinks – Overview

Content Area(s) Science
Sponsor: American Association for the Advancement of Science (AAAS)

Major Resources

- **Lessons**
- **Resources (Web Sites)** –divided into 5 Content Areas: Number & Operations, Algebra, Geometry, Measurement, Data Analysis & Probability
- **Benchmarks (Standards)** – 5 Content standards, grouped by grades with electronic examples
- **Tools (Activities)** – more than 60 online activities

Search For	Sort/Search By	From
Lessons	• Title • Grade • Benchmark – (standards)	Lesson page
Resources (Web Links)	Not searchable, Organized within 4 grade levels and 12 standards	Resources page
Tools (Activities)	• Tool Title • Grade • Benchmark – (standards)	Tools Page
Science Update	• Program Name • Benchmark – (standards) • Date	Science Update Index (from Science NetLink page click on Science Update Link)

Additional Features

Science Updates

- A collection of science lessons that bring the latest science research and discovery.
- Each science update contains an audio feature
- Every Science Update is cross-referenced to benchmarks and related Web sites.

Student E-sheets

- Sheet that coincide with lesson plans that provide step-by-step instructions for Web activities.

Site Strengths

- Next to the Title on the Lesson pages icons let you know if a student sheet or online activity is included.
- Science Update section which contains an audio feature interview (with transcript) and lesson.
- Student E-sheets and teacher sheets are included is some lessons. The student sheets go to an online resource while the teacher sheet helps guide the student as they go through the resource.

Technology Integration

The Lesson, Activities and Web Links are all inter connected.

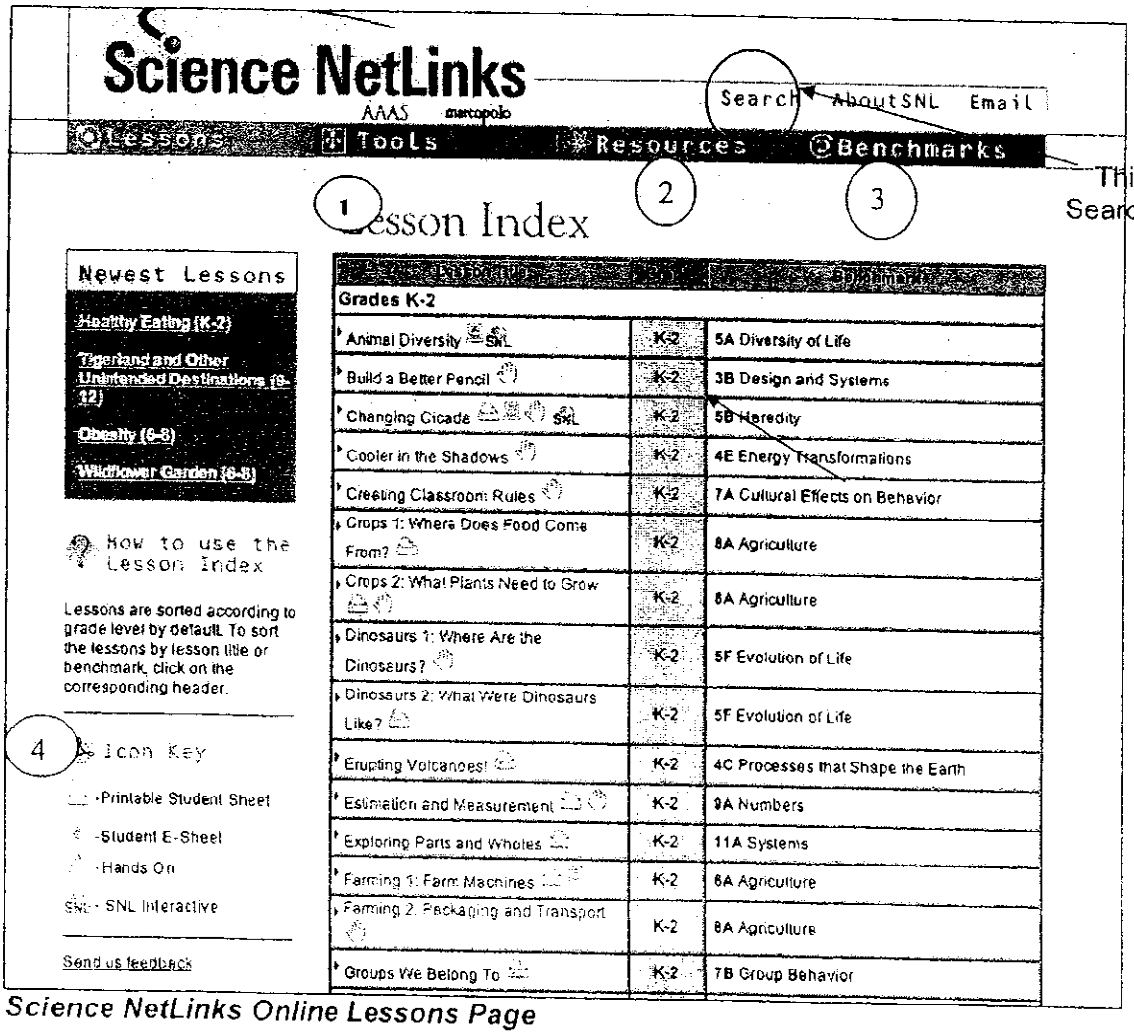
Science NetLinks Lessons

The SNL Lessons are divided by title, grade and benchmark. The Icon key shows the type of interactive activities within a lesson. On the lesson page there is a box on the left with the Newest Lessons.

Searching for Lessons:

You do not have a search engine but can sort the lessons within Science NetLinks by:

1. Lesson Title
2. Grade
3. Benchmark



Science NetLinks Online Lessons Page

Icon Key:

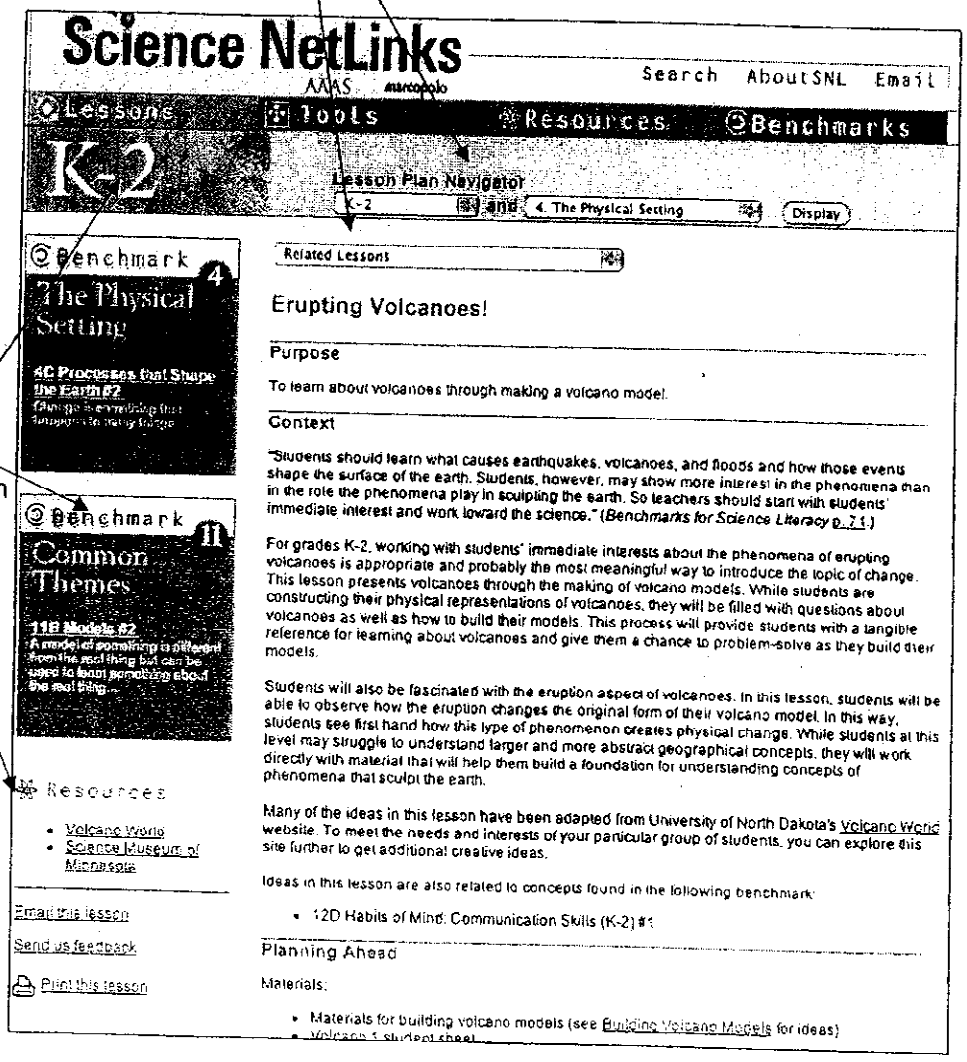
- Printable Student Sheet – a link to a PDF formatted sheet to print
- Student E-sheet – Online resources that provide step-by-step instructions to guide students through Web activities.
- Hands On
- SNL Interactive

Overview of Lessons Pages

There is a **Lesson Plan Navigator** at the top that allows you to change lessons based on the grade and standard.

There is also a **Related Lessons** pop up menu that lists lessons on the topic you chose. You can choose to display a related lesson directly from within the lesson you are viewing.

Related Information

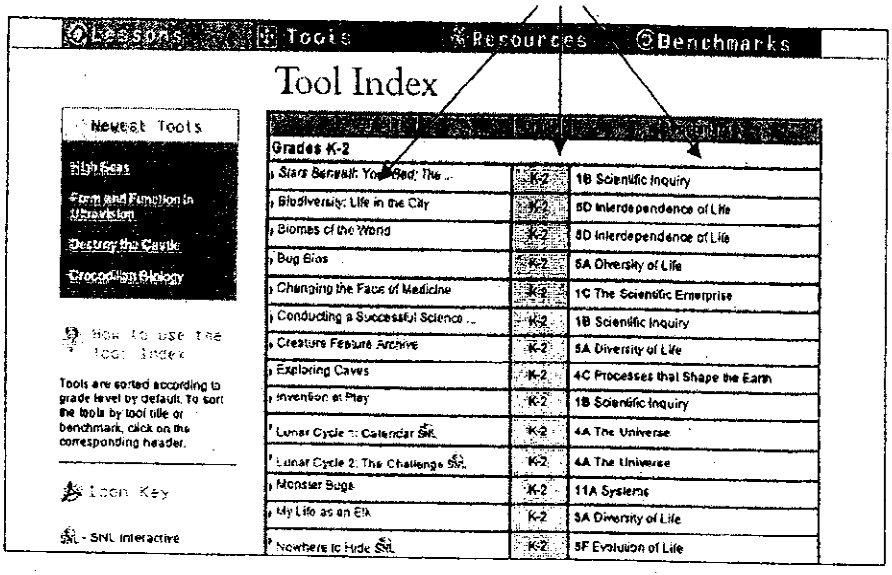


Parts of Lessons	
Purpose	Objectives
Context	
Planning Ahead	Lists the materials needed for lesson
Motivation	
Development	
Assessment	Usually a set of questions, sometimes a linked sheet
Extensions	Usually includes related lessons or web sites for more investigation.
Date Created	Always included – helps validate if information is current
Student Pages	• If included a Student E-sheet icon will display on Index Page • If in lesson they are links that are always labeled as student E-Sheet or student sheet
Related Information Grade Level Benchmarks Resources Other	On the left displays related information Standards for lesson • Links for web sites on the topic • If linking to an outside resource 2 windows display, the site and an In-house Review window. • If linking to a resource that is in SNL's list the review with display within the resource window and then you click on the link to the web site. • Buttons to print and email lesson • Button to comment on lesson

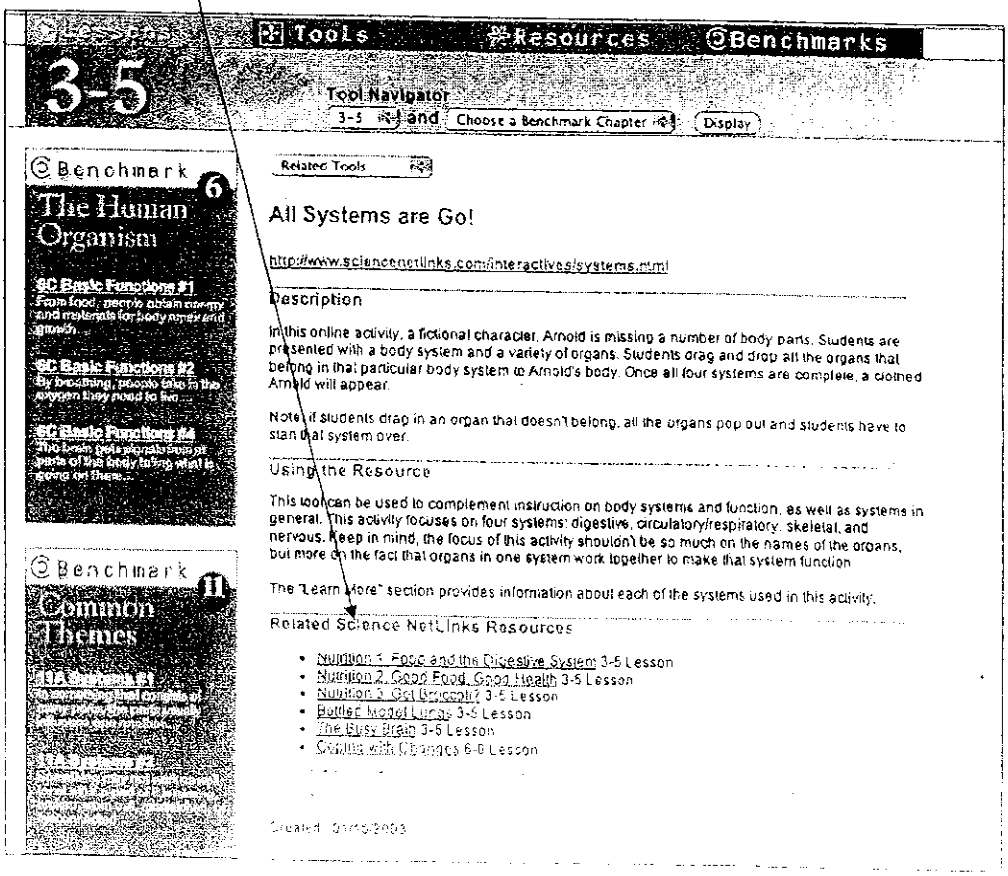
Sample Lessons		
Title	**Grade**	**Comments**
Erupting Volcanoes	K-2	• Click on volcano World Link – scroll down to see High Resolution Satellite Images of Volcanoes • A lot of great links within lesson!
Exploring the Solar System	6-8	• Student E-Sheet • Nice pictures of the planets through links
Healthy Eating	K-2	• In the extensions section there is a breakdown of websites suitable for the teacher and students.
Animal Communication	6-8	• Shows that some animals are limited genetically • Student E-sheet

Tools - Activities

Tools section includes online student activities created by Science NetLinks or found in SNL reviewed resources. Tools are sorted according to grade level by default. To sort the tools by tool title or benchmark, click on the corresponding header.



These links do not give a full lesson plan just an activity on a topic. There is a related SNL Resources section to get to lessons that are related to your topic.



Sample Activities		
Tool Title	**Grade/Benchmark**	**Comments**
All Systems are Go	3-5	Interactive activity of putting together the four systems of the body with Arnold Schwarzenegger's voice
Changing Illusions	3-5	Students will experience illusions by trying to make adjustments on various patterns.
What is Sound?	6-8	Brings you to NIDCD- National Institute on Deafness and Other Communication Disorders
Chimpanzee Behaviors	9-12	Click on various types of behaviors of chimpanzees and view them.
Exploring Nonverbal Communication	6-8	Tests student's abilities to read nonverbal cues.

Web Links

Web Links are links to specific sites that are related to the Benchmark topics. You can choose resources by grade level within the Benchmark. Each of these sites has been reviewed by SNL. .

The icon will be next to sites that are stable, reliable and useful resources. When you first choose a resource you will be directed to the In-house review. The review gives you a good overview of the site. The reviewers name, affliation and date of review are listed below. You can go to the site by clicking on the URL below the resource name.

Searching for Web Links: You cannot search this site. You can pick a grade level within the benchmark

Sample Web Links		
Benchmark/grade	**Name**	**Comments**
Human Organism 3-5	Inside the Human Body	• Interactive activities are different in each section and appropriate for the target age group • Within different age groups, worksheets, puzzles, and games
Human Organism 6-8	Yuckiest Site on the Internet	• Students will have fun exploring such topics as poop, roaches, worms, farts, and snot. • Complete with diagrams, quizzes, fun facts, games, videos, and sound effects. • This page is certain to capture the attention of kids.
Physical Setting 6-8	• Nova • Bill Nye Labs • PBS	• Good standard sites

Science NetLinks

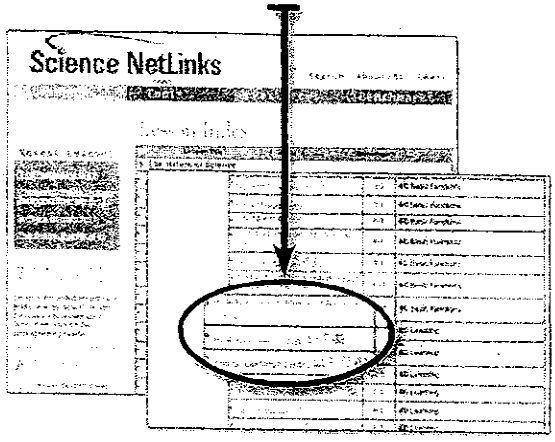
Teaching Scenario: Elementary

www.sciencenetlinks.com

Setting the Stage

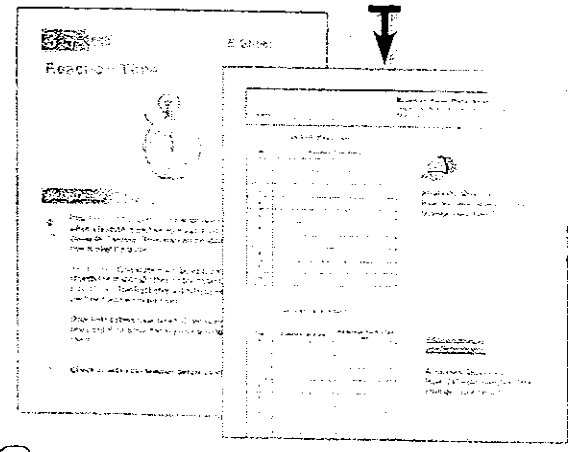
Mr. Sanchez is looking for materials that address specific standards regarding the ways people learn. He is hoping to find activities that will engage his fifth-grade students and provide opportunities to discover the process of learning.

(1) Being familiar with the Science NetLinks Web site, Mr. Sanchez knows that all of the resources are standards-based and searchable by benchmark. He starts by visiting the **Lesson Index** page and sorts the lessons by benchmark. Mr. Sanchez scrolls down to The Human Organism: Learning benchmark area, and finds the 3-5 lesson series, **Reaction Time 1 and 2**, which addresses the learning goals he is teaching. He also can tell by looking at the icons that these lessons provide **printable student sheets, online student E-Sheets, online interactives** and **hands-on activities**. After reviewing the lessons, Mr. Sanchez decides that these materials will provide him with what he needs for his class.



(2) Mr. Sanchez starts by using the lesson **Reaction Time 1: How Fast Are You?** This lesson encourages students to think about their own learning and learning strategies. After a general discussion about reaction time in which students share their own experiences, Mr. Sanchez lets students know that they will use an online activity to observe and analyze their reaction time. In the computer lab, students use the **Reaction Time E-Sheet**, which Mr. Sanchez had bookmarked earlier, to access the activity, **Fastball Reaction Time**. In this activity, students discover the process of reacting to a cue and how repeated practice can impact on the end result. As students conduct this activity, they record their data on the student sheet, Reaction Time Data. Once students have finished this activity, Mr. Sanchez gives them time to analyze their data and describe how their reaction times changed over time. Mr. Sanchez brings the class back together to discuss their experience with

this activity and ask students to share the strategies they used to improve their response times.



(3) The next day, Mr. Sanchez picks up where he left off with teaching about reaction time. Since he does not have access to the lab today, Mr. Sanchez has printed out the instructions for the activity, **How Fast Are You?** Students again work in pairs to test their reaction time by catching a ruler in mid-air. Before starting the activity, Mr. Sanchez asks students to reflect on the similarities and differences between this activity and the **Fastball Reaction Time** activity, allowing students to make connections and begin to form inferences about today's activity. As students test their ruler-catching abilities, they record their reaction times, analyze data, and discuss results and performance strategies as a class.