

# McREL Compendium of Standards

*The Compendium of Academic Standards was developed by McREL in the 1990s. While funding for the project ended in approximately 2015, the Compendium remained online through 2023, although the contents, links, and other resources had not been updated since 2016.*

*Due to the materials becoming out-of-date, the growing number of broken links to lesson plan resources, and the underlying database and servers becoming incompatible with current technology, the Compendium was taken offline in 2024.*

*The historical information below was taken from the Compendium website in 2024, and is published here for archival and reference purposes.*

*For more information about the Compendium, please contact McREL International, 4601 DTC Boulevard, Suite 500, Denver, CO 80237.*

## Lesson Plans & Related Resources

*Note: An asterisk (\*) denotes an activity that is listed under more than one topic.*

*McREL does not maintain, endorse, or take responsibility for the content on any of the sites that are linked. Linked resources were current as of the time the Compendium was last updated. Some sites may go off-line unexpectedly.*

## The Arts

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### General art resources

- [Stationary Art Projects for Kids](#)—Allison De Meulder
- [ARTSEdge](#)—John F. Kennedy Center for the Performing Arts; Washington, D.C.
- [John F. Kennedy Center for the Performing Arts](#)—Washington, D.C.
- [NYFA Interactive](#)—New York Foundation for the Arts; New York, NY

### Dance

- ["Dance 8 to 10" Integrated Resource Package](#) (Grades 8–10)—British Columbia Ministry of Education, Canada
- [Free to Dance: Lesson Plans](#) (Grades 6–8)—PBS Online®
- [Moccasins Are Made for Dancing](#) (Grades 6–8)—Lillian Hasko

### Music

- [American Music Genres](#) (Grades 9–12)—**McREL**
- [The Same Old Song](#) (Grades 9–12)—**sMcREL**
- [Brass Instruments and Pitch](#) (Kindergarten–Grade 4)—Leslie Thomas
- [Percussion Instruments and Pitch](#) (Kindergarten–Grade 4)—Leslie Thomas
- [String Instruments and Pitch](#) (Kindergarten–Grade 4)—Leslie Thomas
- [Woodwind Instruments and Pitch](#) (Kindergarten–Grade 4)—Leslie Thomas
- [African Arts and Music](#) (Grades 3–6)—PBS Online®
- [Connexions](#) (Grades K–12)—Catherine Schmidt-Jones
- [Honky Tonks, Hymns, & the Blues](#) (High School)—National Public Radio; Washington, D.C.
- [Jazz and World War II: A Rally to Resistance, A Catalyst for Victory](#) (Grades 9–12)—EDSITEment
- [Form and Theme in the Traditional Mexican Corrido](#) (Grades 9–12)—Theresa Sotto

- ["Music 8 to 10" Integrated Resource Package](#) (Grades 8–10)—British Columbia Ministry of Education, Canada
- [Music From Across America](#) (Grades 3–5)—EDSITEment
- [Music Lesson Plans](#) (Multiple lessons, multiple grades)—ArtsEdge, The Kennedy Center
- [The Poetics of Hip Hop](#) (Grades 9–12)—Theresa Sotto; Tucson, AZ
- [Spirituals](#) (Grades 9–12)—EDSITEment
- [An Introduction to Classical Music](#)—Naxos
- [MENC: The National Association for Music Education](#)—Reston, VA
- [Mozart's Musikalisches Würfelspiel](#)—John Chuang
- [Piano Education](#)—West Mesa Music Teachers Association; Rio Rancho, NM
- [Piano on the Net](#)—The Nanny Group, Inc.
- [Sondheim.com](#)—Mark Bakalor & hijinks design
- [Essential Humanities](#) —Timeline

## Theatre

- [Screenwriting 101](#) (Grades 9–12)—**McREL**
- ["Drama 8 to 10" Integrated Resource Package](#) (Grades 8–10)—British Columbia Ministry of Education, Canada
- [The Complete Works of William Shakespeare](#)—Jeremy Hylton
- [Medieval Drama Links](#)—Sydney Higgins; European Medieval Drama Council

## Visual arts

- [Reflections of Hunger and Poverty: the Works of Lange, Kollwitz, and Orozco](#) (Grades 7–8)—**McREL**
- [Art History Lesson Plans](#) (Multiple lessons, multiple grades)—ArtsEdge, The Kennedy Center
- [Art Lesson Ideas](#) (Multiple lessons, multiple grades)—TeachNet.com
- [The Incredible Art Department](#) (Multiple lessons, multiple grades)—Judy Decker & Ken Rohrer
- ["Fine Arts 11" Integrated Resource Package](#) (Grade 11)—British Columbia Ministry of Education, Canada
- [K-12 Lesson Plans](#) (Multiple lessons, multiple grades)—KinderArt®
- [K-12 Solutions Art Lesson Plans](#) (Multiple lessons, multiple grades)—Eastman Kodak Company
- [Mathematics and...Art: Perspective Drawing](#) (Middle School)—Jan Garner; The Math Forum @ Drexel; Philadelphia, PA
- [NGA Classroom](#) (Multiple lessons, multiple grades)—National Gallery of Art; Washington, D.C.
- ["Visual Arts 8 to 10" Integrated Resource Package](#) (Grades 8–10)—British Columbia Ministry of Education, Canada
- ["Visual Arts: Media Arts 11 & 12" Integrated Resource Package](#) (Grades 11–12)—British Columbia Ministry of Education, Canada
- [Art History Resources](#)—Chris Witcombe; Sweet Briar College, Virginia
- [Art on the Net](#)—Menlo Park, CA
- [Art Studio Chalkboard: Drawing and Painting Fundamentals](#)—Ralph Larmann; University of Evansville, Indiana
- [Creativity Central](#)—Crayola®
- [de Young Museum, Legion of Honor and The Thinker ImageBase](#)—Fine Arts Museums of San Francisco, CA
- [The Detroit Institute of Arts](#)—Detroit, MI
- [Exploring Leonardo](#)—The Museum of Science™; Boston, MA
- [The Metropolitan Museum of Art](#)—New York, NY
- [Smithsonian American Art Museum](#)—Washington, D.C.
- [WebMuseum](#)—Nicolas Pioch
- [Essential Humanities](#) —Timeline

# Behavioral/Social Sciences

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## General social science resources

- [Lesson Plans and Teaching Strategies for Social Studies](#) - Dr. Marty Levine; California State University, Northridge
- [Social Education Lesson Plans](#) - National Council for the Social Studies; Silver Spring, MD
- [Social Studies Activities](#) - Dr. Scott Mandel; Teachers Helping Teachers
- [American Psychological Association](#)—Washington, D.C.
- [Coombsweb Social Sciences/Asian Studies Server](#)—Australian National University, Canberra
- [CSAC's Ethnographics Gallery](#)—The Center for Social Anthropology and Computing; University of Kent at Canterbury
- [Elementary Social Studies Curriculum Guide](#)—Saskatchewan Education; Regina, Saskatchewan
- [K-12 African Studies](#)—African Studies Center; University of Pennsylvania, Philadelphia
- [Latin America Data Base](#)—University of New Mexico, Albuquerque
- [National Council for the Social Studies](#)—Washington, D.C.
- [NativeWeb](#)—New York
- [Psycoloquy](#)—American Psychological Association
- [Schools of California Online Resources for Education \(SCORE\)](#)—California Technology Assistance Project
- [Social Science Information Gateway](#)—University of Bristol, UK
- [Social Studies Sources](#)—Indiana University, Bloomington
- [Teaching Resources](#)—American Psychological Society; Washington, D.C.
- [W. E. B. Du Bois Institute for African and African American Research](#)—Harvard University; Cambridge, MA

## Cooperation and conflict

- [CyberSchoolBus](#)—United Nations

## Cultural diffusion, adaptation, and interaction

- [AFS Intercultural Programs](#)—AFS International; New York, NY

## Development of cultural identity

- [Cultures of Our Nation](#) - Lorena Marie Romero; Ann Parish Elementary; Los Lunas, NM
- [American Identities](#)—American Studies at University of Virginia, Charlottesville

## Family and gender roles

- [Distinguished Women of Past and Present](#)—Danuta Bois
- [Women's Studies Librarian's Office](#)—University of Wisconsin-Madison

## Fundamentals of culture

- [Coyote and Anansi](#) - McREL
- [Around the World](#) - Education Place®; Houghton Mifflin
- [Making a Multi-Cultural Calendar](#) - Education Place®; Houghton Mifflin
- [Archaeology of Teotihuacan, Mexico](#)—Arizona State University, Tempe
- [Cultures of the Andes](#)—Ada & Russ Gibbons
- [NativeTech: Native American Technology and Art](#)—Tara Prindle
- [Totem Poles: An Exploration](#)—Pat Kramer

## Group membership

- [In 'Other' Words: Writing Gently Humorous Essays About Stereotypes](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY
- [The Ties That Bind](#) - McREL
- [Walking Around in Another's Shoes](#) - McREL

## Individual development and identity

- [Creative Collages - McREL](#)
- [Who Is Family? Analyzing Family Photos](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY

## Sensory perception

- [The Joy of Visual Perception: A Web Book](#)—Peter Kaiser; York University; Toronto, Ontario
- [Seeing, Hearing, and Smelling the World](#)—Howard Hughes Medical Institute; Chevy Chase, MD

# Civics

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## General Civics Resources

- [PBS Teachersource](#) (Multiple grades; multiple lessons)—PBS Online®
- [American Government](#) (Multiple grades)
- [Center for Civic Education](#) - Calabasas, CA
- [The Civic Mind™](#) - Wendy Bay Lewis
- [Civnet](#) - CIVITAS International
- [The Learning Network: Teaching & Learning With The New York Times](#); New York, NY

## Civic responsibility

- [Institute for the Study of Civic Values](#) - Philadelphia, PA

## Distribution of power under the U.S. Constitution

- [The Constitution: Our Plan for Government](#) (Grades 8–9)—Willie Jefferson; Coleman Middle School; Wichita, KS
- [Separation of Powers Between the Three Branches of Government](#) (HS social studies)—Tim Brennan; Weiser High School; Idaho
- [The U.S. Constitution Power Grab Game](#) (HS social studies)—Don M. Carlson; Columbia River High School; Vancouver, WA

## Diversity in American society

- [Reflections About Diversity](#) (HS social studies)—**McREL**
- [Right There in Black and White? Identity, Assimilation and the Résumé](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY

## Economic rights

- [Houses or Walaloos?](#) (Grades 6–8)—**McREL**

## Formation and implementation of public policy

- [The Electronic Policy Network](#) - Moving Ideas Network; The American Prospect Magazine

## Forms of political participation

- [Get It on the Ballot](#) (Grade level not given; secondary social studies)—PBS Online®
- [Voting Rights](#) (Grade level not given; HS social studies)—PBS Online®
- [Project Vote Smart](#) - Philipsburg, MT

## Historic documents, treaties, and agreements

- [Divided We Fall](#) (Grades 6–8)—**McREL\***
- [Digital Classroom: Primary Sources and Activities](#) (Multiples grades; multiple lessons)—National Archives and Records Administration; Washington, D.C.

## Individual rights and responsibilities

- [Divided We Fall](#) (Grades 6–8)—**McREL\***

## **Necessity and purpose of government**

- [Creating Classroom Constitutions](#) (Grades 5–12)—Jeff Gruber; Judith Gap School; Montana\*
- [Government Formation](#)(Grades 6–8)—NationMaster.com
- [The Theory of American Founding: Why Government?](#) (HS social studies)—The Claremont Institute; Claremont, CA

## **Organization of the world**

- [World Factbook 2003](#) - Central Intelligence Agency; Washington, D.C.

## **Political organizations and groups**

- [The League of Women Voters®](#) - Washington, D.C.

## **Political parties, campaigns, and elections**

- [Election 2000](#) (HS social studies)— **McREL**
- [Analyzing Political Ads](#) (Grade level not given; HS social studies)—PBS Online®
- [Campaign Finance Simulation](#) (Grade level not given; HS social studies)—PBS Online®
- [Home-Made Political Parties](#) (HS social studies)—Joanne Flint; Dayton Junior/Senior High School; Dayton, OR
- [The Presidential Campaign Game](#) (HS social studies)—Denton S. Gehr II; Edward C. Reed High School; Nevada
- [Presidential Campaign Stop](#) (Grade level not given; HS social studies)—PBS Online®
- [Presidential Elections: A Simulation](#) (HS social studies)— Randolph Burns; Fredonia High School; Fredonia, KS
- [Writing a Political Speech](#) (Grade level not given; HS social studies)— PBS Online®
- [Ease History](#) - Brian Collins

## **Purpose and function of rules and laws**

- [Following the Law](#) (Grades K–2)—**McREL**
- [The Theory of American Founding: Why Equal Protection of the Law?](#) (HS social studies)—The Claremont Institute; Claremont, CA

## **Purpose and use of constitutions**

- [We the People...](#) (HS social studies)—**McREL**
- [Creating Classroom Constitutions](#) (Grades 5–12)—Jeff Gruber; Judith Gap School; Montana\*

## **Rule of law**

- [George Washington and the Rule of Law](#) (HS social studies)—The Claremont Institute; Claremont, CA

## **Selection of political leaders**

- [The American Presidency](#) - Grolier Online; Scholastic Library Publishing, Inc.\*

## **Structure and responsibilities of local government**

- [Know Your Local Government](#) (Grades 3–12)—Peg Stout; Anchorage School District, Alaska
- [State and Local Government on the Net](#) - Piper Resources; Minneapolis, MN\*

## **Structure and responsibilities of national government**

- [The American Presidency](#) - Grolier Online; Scholastic Library Publishing, Inc.\*
- [The American President](#) - Miller Center of Public Affairs; University of Virginia, Charlottesville
- [Supreme Court Decisions 1937-1975](#) - Fed World; Springfield, VA
- [THOMAS](#) - The Library of Congress; Washington, D.C.
- [U.S. Government Printing Office](#) - Washington, D.C.
- [Welcome to the White House](#) - Washington, D.C.
- [Ben's Guide to the U.S. Government for Kids](#) - U.S. Government Printing Office; Washington, D.C.
- [Life in the White House](#) - The White House; Washington, D.C.

## Voluntarism in American life

- [We Need Cash](#) (Grades 6–8)—**McREL**

## Economics

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### General Economics Resources

- [EcEdWeb: Economic Education Web](#) (Multiple grades; multiple lessons)—University of Nebraska Omaha, Center for Economic Education\*
- [Online Economic Lessons](#) (PreK–Adult lessons)—Econedlink; Council for Economic Education
- [Lesson Plans and Teaching Strategies for Social Studies](#) (Multiple grades; multiple lessons)—Dr. Marty Levine; California State University, Northridge
- [PBS TeacherSource](#) (Multiple grades; multiple lessons)—PBS Online®
- [Practical Money Skills for Life](#) (Multiple ages; multiple lessons, games, articles)—Visa
- [Teaching and Learning with the New York Times](#) (Multiple grades; multiple lessons; all subjects)—The Learning Network: Teaching & Learning with The New York Times; New York, NY
- [Economics Education Web](#)—Kim Sosin; University of Nebraska, Omaha
- [National Council for the Social Studies](#)—Silver Spring, MD
- [Council for Economic Education](#)—New York, NY
- [Schools of California Online Resources for Education \(SCORE\)](#)—California Technology Assistance Project

### Interactive resources for kids

- [The United States Mint's Site for Kids](#)—The United States Mint; Washington, D.C.\*

### Budgets

- [Money Comes and Goes](#) (Grade level not given; primary social studies)—EconEdLink; National Council on Economic Education; New York, NY\*
- [Budget Worksheets and Lessons](#) (Grades 3–12)—MoneyInstructor.com

### Debts

- [Car Loan Project](#) (Grades 9–12)—Econedlink; Council for Economic Education
- [Crunching the Numbers: Exploring the Math of the Debt Crisis](#) (Grades 9–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY\*
- [Finance Lessons: Learning About the National Debt](#) (Grades 11–12). Online Finance Degree.

### Economic decision-making

- [A Big Purchase](#) (HS economics)—**McREL**
- [Going Camping](#) (Grades 3–5)—**McREL**
- [Deals on Wheels: Car Loan Project](#) (Grades 9–12 economics)—Washington State Future Business Leaders of America\*
- [House of Cards: Credit Card Project](#) (Grades 9–12 economics)—Washington State Future Business Leaders of America\*

### Entrepreneurship/innovation

- [I Can Be an Entrepreneur](#) (Grades 3–8)—Econedlink; Council for Economic Education
- [Lemonade Stand](#) (Elementary)—Washington State Future Business Leaders of America
- [The Entrepreneur in you?](#) (Grades 9–12 economics)—EconEdLink; Council for Economic Education; New York, NY

### Exchange and money

- [Trading Post Simulation](#) (Grades K–2)—**McREL**
- [Understanding the Effects of Currency Exchange Rates](#) (Grades 9–12 economics)—University of Nebraska Omaha, Center for Economic Education\*

## Goods and services

- [Goods and Services Activities](#) (Elementary social studies)—BrainPOP; FWD Media, Inc
- [What Does the Nation Consume?](#) (Grades 6–8 social studies)—EconEdLink; National Council for Economic Education; New York, NY\*

## Inflation/deflation

- [Consumer Price Indexes](#)—The United States Department of Labor; Washington, D.C.

## Interest rate

- [Buy a Bond, James! A Lesson on US Savings Bonds](#) (Grades 3–5 social studies)—EconEdLink; Council for Economic Education; New York, NY\*
- [Climbing the Savings Mountain](#) (Grades 6–8)—EconEdLink; Council for Economic Education; New York, NY\*

## Investment

- [The Ups and Downs of the Stock Market](#) (Grades 9–10)—Washington State Future Business Leaders of America

## Market failures

- [Crunching the Numbers: Exploring the Math of the Debt Crisis](#) (Grades 9–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY\*
- [Not in My Backyard!](#) (HS economics)—**McREL**

## Money supply

- [Teaching Basic Banking Principles](#) (Grades 11–12)—Brian L. Johnson; Marana High School, Arizona; Washington State Future Business Leaders of America
- [The Money Supply](#) (Grades 6–8)—Curriculum Link; Hampton Roads, Virginia

## Opportunity costs and trade-offs

- [Chocolate Peas or Chocolate Chicken?](#) (Grades 2–3 social studies)—Christinia Dunham; Hotchalk
- [Cost/Benefit Analysis: Three Gorges Dam](#) (Grades 6–8 economics)—EconEdLink; Council for Economic Education; New York, NY

## Production and consumption

- [What Does the Nation Consume?](#) (Grades 6–8 economics)—EconEdLink; Council for Economic Education; New York, NY\*

## Role of government

- [Government and Economics: The Ties That Bind](#) (Grades 11–12 economics)—Mary J. Williams; Monroe Catholic High School; Fairbanks, AK; Columbia Education Center
- ["Look Who's Footing the Bill!" A WebQuest](#) (economics)—Tom March; SBC Communications, Inc.\*
- [What do You Get for Your \\$1,800,000,000,000?](#) (Grades 9–12 economics)—EconEdLink; Council for Economic Education; New York, NY
- [The United States Mint's Site for Kids](#)—The United States Mint; Washington, D.C.\*
- [The United States Department of Commerce](#)—Washington, D.C.
- [Educational Games and Resources](#)—Bureau of Engraving and Printing; Washington, D.C.\*

## Savings

- [Buy a Bond, James! A Lesson on US Savings Bonds](#) (Grades 3–5 social studies)—EconEdLink; Council for Economic Education; New York, NY\*
- [Climbing the Savings Mountain](#) (Grades 6–8 social studies)—EconEdLink; Council for Economic Education; New York, NY\*
- [Money Comes and Goes](#) (Grades 3–5 social studies)—EconEdLink; National Council on Economic Education; New York, NY\*

## Scarcity and choice

- [Toys for Me: A Lesson on Choice](#) (Grades K–5 social studies)—EconEdLink; Council for Economic Education; New York, NY

## Supply and demand

- [Explorations in Economic Demand](#) (Grades 11-12 )—Kim Sosin; University of Nebraska, Omaha
- [Supply and Demand, Lessons from Toy Fads](#) (Grades 6–8)—Econedlink; Council for Economic Education; New York, NY
- [To Buy or Not To Buy](#) (Grades 6–12 )—EconEdLink; Council for Economic Education; New York, NY

## Unemployment

- [Helping the Hungry: Researching the Causes of Hunger and Related Charities](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY
- [Help Wanted? Debating Unemployment Legislation](#) (Grades 6–12; civics and economics)—The Learning Network: Teaching & Learning With The New York Times; New York, NY

## U.S. monetary policy

- [Board of Governors of the Federal Reserve System](#)—Washington, D.C.

# Foreign Language

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## General foreign language resources

- [Foreign Language Lesson Plans](#) (Multiple lessons, multiple grades)— Educator's Reference Desk; Information Institute of Syracuse, New York
- [Cooperative Learning Lessons, French](#) (Secondary)—Pete Jones; Ontario, Canada
- [Unit Plans: The Hispanic World & What's in a Name?](#) (Grades 4–12)—LETSNET, Michigan State University College of Education and Ameritech
- [Miscositas](#) (Grades K–12)—materials, lessons, thematic units, videos; English, Spanish, French, Chinese; Lori Langer de Ramirez
- [Mas Aribba: Spanish Language Lessons](#) (Secondary)—Gary Aitken, Trent University
- [LOTE: Learning Scenarios](#) (Grades K–12)—Southwest Educational Development Laboratory
- [American Council on the Teaching of Foreign Languages](#) - Alexandria, VA
- [Language, Learning & Technology Journal](#) - University of Hawai'i National Foreign Language Resource Center & Michigan State University Center for Language Education And Research
- [LingNet](#) - John M. Ockerbloom; Defense Language Institute Foreign Language Center, California
- [The On-Line Books Page](#) - University of Pennsylvania, Philadelphia
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## Resources for specific languages

- [The ARTFL Project](#) - Institut National de la Langue Française & University of Chicago, Illinois
- [The Electronic Text Center \(multilingual\)](#) - University of Virginia Library, Charlottesville
- [French Resources](#) - University of Sussex School of European Studies, UK
- [German for Travellers](#) - Dr. Peter Golz
- [Language Materials Project: resources for less commonly taught languages](#) - University of California, Los Angeles
- [Projekt Runeberg: Nordic Literature](#) - Linköping University, Sweden

# Geography

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## General geography resources



- [Lesson Plans and Teaching Strategies for Social Studies](#) (Multiple grades; multiple lessons)—Dr. Marty Levine; California State University, Northridge
- [PBS TeacherSource](#) (Multiple grades; multiple lessons)—PBS Online®
- [Social Studies Activities](#) (Grades 2–7)—Dr. Scott Mandel; Teachers Helping Teachers
- [Xpeditions Archive: Lesson Plans](#) (Grades K–12)—National Geographic Society, Washington, D.C.
- [Dictionary of Geography Terms](#)—Danny Harrington; ITS Tutorial School Hong Kong
- [Geography4Kids](#)—Andrew Rader Studios
- [Harvest of History](#)—Farmers' Museum; Cooperstown, NY
- [JetPunk – Geography Quizzes](#)—John Hostetler
- [National Geographic Society](#)—Washington, D.C.
- [National Council for the Social Studies](#)—Washington, D.C.
- [Schools of California Online Resources for Education \(SCORE\)](#)—California Technology Assistance Project
- [Social Science Information Gateway](#)—University of Bristol, UK
- [Social Studies Sources](#)—Indiana University, Bloomington

### Interactive activities for kids

- [Earthquake Info Kids Zone](#)—Association of Bay Area Governments, California\*
- [GeoNet Game](#) (Grade level not given; elementary geography)—Education Place®; Houghton Mifflin

### Characteristics of places

- [Exploring Our National Parks](#) (Grades 6–8)—**McREL**

### Cooperation and conflict

- [European Union Web site](#)—The European Union

### Cultural regions

- [Celebrating Diversity](#) (Grades K–2)—**McREL**
- [Six Paths to China](#) (secondary social studies) Tom March, 2010
- [Asian Studies Virtual Library](#)—Coombsweb; Australian National University, Canberra
- [AskAsia](#)—Asia Society; New York, NY
- [K-12 Guide for African Resources on the Internet](#)—Ali B. Ali-Dinar; University of Pennsylvania, Philadelphia
- [Latin American Network Information Center](#)—University of Texas at Austin
- [REESWeb: Russian and Eastern European Studies](#)—University Center for International Studies; University of Pittsburg, Pennsylvania

### Environmental issues

- [Environmentalism: Then and Now](#) (HS geography)—**McREL**
- [One Forest, Many Options](#) (HS geography)—**McREL**
- [John Muir Day Study Guide](#) (Multiple grades; multiple lessons)—Sierra Club; San Francisco, CA
- [Wilderness Preservation](#) (Grades 10–12)- NationMaster.org; Australia

### Geographic databases and technology

- [HumPop and IntlPop](#)—Project GeoSim; Virginia Tech; Blacksburg, VA
- [InfoNation](#)—United Nations
- [Space Radar Images of Earth](#)—Jet Propulsion Laboratory; National Aeronautics and Space Administration (NASA)
- [Time Service Department](#)—U.S. Naval Observatory; Washington, D.C.
- [U.S. Census Bureau](#)—United States Department of Commerce; Washington, D.C.

### Geologic, atmospheric, and hydrospheric processes

- [Earthquake Info Kids Zone](#)—Association of Bay Area Governments, California\*
- [Earthquake Maps and Information](#)—Association of Bay Area Governments, California

- [Hurricane and Natural Disaster Brochures](#)—National Oceanic and Atmospheric Administration; Miami, FL
- [National Earthquake Information Center](#)—U.S. Geological Survey; Washington, D.C.
- [Welcome to Tsunami!](#)—Department of Earth and Space Sciences; University of Washington, Seattle

### Maps, globes, and atlases

- [Flat Earth Society](#) (Grades 6–8)—**McREL**
- [The Globe Game](#) (Grades 3–5)—**McREL**
- [Weather Watch](#) (Grades 6–8)—**McREL**
- [Improving Map Skills](#) (Primary geography)—NationMaster.com
- [Mapmaking](#) (Grades 4–6)—Linda Bauck; Wallowa Elementary; Oregon
- [Orienteering: Map Skills](#) (Grades K–4)—Donna Johnson; Wallowa Elementary; Oregon
- [Plotting a Hurricane Using Latitude and Longitude](#) (HS geography)—Kathy Mendoza; Redemptionist High School; Louisiana
- [Using Grids](#) (Grade level not given; elementary & middle school geography)—Education Place®; Houghton Mifflin
- [Using the Mileage Key on Maps](#) (Grades 4–6)—Faun White; Utah
- [What Do Maps Show?](#) (Grade level not given; elementary geography)—U.S. Geological Survey; Washington, D.C.
- [You Can Find It!](#) (Grades 3–12)—Carl White; Chignik Lake, AK
- [Color Landform Atlas of the U.S.](#)—Ray Sterner; Johns Hopkins Applied Physics Laboratory; Baltimore, MD
- [Cultural Maps](#)—University of Virginia, Charlottesville
- [Outline Maps](#)—Education Place®; Houghton Mifflin
- [The Perry Castaneda Library Map Collection](#)—University of Texas at Austin

### Natural resources

- [Understanding Energy Concerns](#) (Grades 11–12)—NationMaster.com

### Population density, distribution, and growth rates

- [Making a Cartogram](#) (Grades 4–12)—Chuck Dwelley; Fortuna Elementary; Fortuna, CA

### Transportation and communication networks

- [Trains, Planes, and Automobiles](#) (Grades K–2)—**McREL**

### Types of regions

- [Regions: A Hands-on Approach](#) (Grades 6–12)—National Geographic Society; Washington, D.C.
- [Regions of the United States: a geographic perspective](#) (Grades 6–12)—National Geographic Society; Washington, D.C.

## Health and Physical Education

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### General health and physical education resources

- [Health Lesson Ideas](#) - PE Central; Blacksburg, PA
- [Health Lesson Plans](#) - The Educator's Reference Desk; Information Institute of Syracuse, New York
- [Lesson Plans and Reproducibles: Health](#) - Scholastic, Inc.
- [Lesson Plans for Health Teachers](#) (Grades K-12) — the Date Hookup
- [PBS Teacher Source](#) - PBS Online®
- [Lesson Plans and Reproducibles: PE](#) - Scholastic, Inc.
- [Physical Education Lesson Plans](#) - The Educator's Reference Desk; Information Institute of Syracuse, New York
- [American Alliance for Health, Physical Education, Recreation & Dance](#)—Reston, VA
- [PELINKS4U](#)—Central Washington University, Ellensburg

## Balance

- [Beanbag Balance](#) - Scholastic, Inc.

## Benefits of fitness

- [Catching Physical Fitness Fever](#) - Brad Dahnert; Mankato State University, Minnesota
- ["Physical Activity & Health" A Report of the Surgeon General](#)—Centers for Disease Control; Atlanta, GA

## Consumer health

- [Dying to Be Thin](#) - NOVA teachers; PBS Online®\*
- [Exploring Media Messages](#) - Dana Arvidson
- [Food Labels in the Classroom](#) - Kathleen Rogers; Webster School; Winfield, KS\*

## Cooperation and respect

- [Voyage Across the Ocean](#) - Carla Fairbairn; Pope John Paul II School; Barrie, Ontario

## Disease prevention and treatment

- [Disease Presentation](#) - Gen Nelson
- [Centers for Disease Control \(CDC\)](#)—Atlanta, GA

## Drug use and abuse

- [Drug Abuse Brochure](#) - Judy Terando; La Salle, IL
- [The Drug Dope Show](#) - Judy Terando; La Salle, IL
- [Smoking Prevention Campaign](#) - Judy Terando; La Salle, IL
- [Substance Abuse Influences](#) - Donna B. Furtado; Richfield Elementary; Richfield, ID
- [National Inhalant Prevention Coalition](#)—Austin, TX

## Emergency care

- [First Aid Kit](#) - Marlana Marasco; Pennsylvania State University, University Park

## Emotional health

- [Chain of Compliments](#) - Tammy Seys
- [Managing Anger](#) - Toni Nagel-Smith; Bedford, NY

## Family health

- [Family Sculpture Demonstration](#) - Michael Fitzgerald; Nevada Department of Education

## Health information

- [Go Ask Alice!](#)—Columbia University's Health Education Program; New York, NY
- [healthfinder®](#)—U.S. Department of Health and Human Services; Washington, D.C.
- [KidsHealth.org](#)—The Nemours Foundation; Jacksonville, FL
- [National Institutes of Health](#)—U.S. Department of Health and Human Services; Washington, D.C.

## Locomotor skills

- [Cone Tag](#) - Nils Dahlgren; Eastern Washington University, Cheney
- ["Phys. Ed. K-7" Integrated Resource Package](#) - British Columbia Ministry of Education, Canada
- ["Phys. Ed. 8-10" Integrated Resource Package](#) - British Columbia Ministry of Education, Canada
- ["Phys. Ed. 11-12" Integrated Resource Package](#) - British Columbia Ministry of Education, Canada

## Manipulative skills

- [End Line Ball](#) - The Educator's Reference Desk; Information Institute of Syracuse, New York
- [Go for the Goal](#) - Daniel K. Drummond; Seymour Community Schools
- [Hula Hoop Football Fun](#) - Chris Jones; Mankato State University, Minnesota
- [Not In My Backyard](#) - The Educator's Reference Desk; Information Institute of Syracuse, New York

## Measures of fitness

- [Heart Rate and Physical Activity](#) - Gail O'Neal; University of Pittsburgh at Johnstown

## Nutrition and diet

- [Balanced Meals](#) - Katie Catlin; Troy State University
- [Dying to Be Thin](#) - NOVA teachers; PBS Online®\*
- [Healthy Eating](#) - NIE Curriculum Guide; The Montana Standard; Butte, MT
- [Food Labels in the Classroom](#) - Kathleen Rogers; Webster School; Winfield, KS\*
- [Nutrition Lesson Plan](#) - Carol Torterotot
- [Planning a Healthy Menu Using the Food Pyramid](#) - Melissa M. Embacher
- [Salad Party](#) - Beckianne Kilkenny; Cornelius Elementary; Oregon
- [Food & Nutrition Information Center](#)—Agriculture Network Information Center; Beltsville, MD

## Safety and injury prevention

- [Bike rodeo](#) - Tim Bassett
- [Fire Safety Lesson Plans](#) - U.S. Fire Administration; Emmitsburg, MD
- [Safety First](#) - Kari Jo Nelson

## Sport, society, and culture

- [Official Website for the Olympics Movement](#)—International Olympic Committee, Switzerland
- [The Science of Hockey](#)—The Exploratorium®; San Francisco, CA

## Training and conditioning

- [Exercise and You](#) - Corrinne Gallagher; Mankato State University, Minnesota

# History

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## General history resources

- [Crossroads: A K-16 American History Curriculum](#) (Multiple lessons; multiple grades)—Educator's Reference Desk; Information Institute of Syracuse, New York
- [Teaching Current Events via Newspapers, Magazines and TV](#) (Grades 3-12)—Educator's Reference Desk; Information Institute of Syracuse, New York
- [Lesson Plans and Teaching Strategies for Social Studies](#) (Multiple lessons; multiple grades)—Dr. Marty Levine; California State University, Northridge
- [PBS Teacher Source](#) (Multiple lessons; multiple grades)—PBS Online®
- [Social Studies Activities](#) (Grades 2-7)—Dr. Scott Mandel; Teachers Helping Teachers
- [The History Channel Classroom](#)—A&E Television Networks
- [History Web Site](#)—Tennessee Technological University, Cookeville
- [K-12 History Internet Resources](#)—S. Patterson and L. Swanson; Amsterdam, Netherlands
- [National Center for History in the Schools](#)—University of California, Los Angeles
- [Oregon Online](#)—Southern Oregon Education Service District
- [Schools of California Online Resources for Education \(SCORE\)](#)—San Bernardino County Superintendent of Schools & California Technology Assistance Project
- [The Learning Network: Teaching & Learning With The New York Times](#); New York, NY
- [WWW-Virtual Library History: Central Catalogue](#)—Serge Noiret & Inaki Lopez Martin; European University Institute; Florence, Italy

## *United States History*

### Causes and consequences of slavery

- [Legacies of the Middle Passage](#) (Grades 5-6)—McREL
- [Follow the Drinking Gourd: A Cultural History](#) (Grades 6-9)—Chelsey S. Brandt

- [Sweet Clara and the Freedom Quilt](#) (Grades 1–3)—Lisa B. Hylton
- [American Slave Narratives](#)—Bruce Fort; University of Virginia, Charlottesville

### Civil rights movement

- [Perspectives on Civil Rights](#) (Grades 6–8)—**McREL**
- [Martin Luther King Jr. Papers Project](#)—Stanford University, California\*

### Colonies and colonial systems

- [Caught Between Worlds: Frontier Life as Reflected in Captivity Narratives](#) (HS social studies)—**McREL**\*
- [A Practical Experiment in Colonization](#) (Grades 8–12)—Gene W. Mason; Emerson Junior High; Enid, OK
- [Immigrants and Columbus: Then and Now](#) (Grade 3)—Columbus Historical Society
- [Lexington, MA, History](#)—National Heritage Museum
- [Official Site of Colonial Williamsburg](#)—Williamsburg, VA
- [Jamestown Rediscovery](#)—Association for the Preservation of Virginia Antiquities; Richmond, VA

### Cultural movements in American society, 1920s

- [Live from Channel 22](#) (HS social studies)—**McREL**
- [Reporting on the 1920s](#) (Grades 7–8)—**McREL**

### European exploration and colonization, 9th to 17th centuries

- [The Great Explorers](#) (Grades 3–6)—**McREL**
- [Interpreting Christopher Columbus](#) (HS social studies)—**McREL**\*
- [Columbus and the Age of Discovery](#)—Millersville University, Pennsylvania
- [The Columbus Navigation Home Page](#)—Keith A. Pickering
- [Discoverers Web](#)—Andre Engels; Eindhoven, Netherlands
- [The Era of Great Voyages](#)—Bill Uzgalis; Oregon State University, Corvallis\*
- [Exploring the West from Monticello: Columbus to Lewis and Clark](#)—University of Virginia Library, Charlottesville\*
- [Mayflower Web Pages - History and Genealogy](#)—Caleb Johnson

### Family and gender roles

- [Herstory](#) (Grades 4–12)—The Learning Page; The Library of Congress; Washington, D.C.\*
- [Miss America](#) (Grade level not listed; secondary social studies)—PBS Online®

### Family life past and present

- [Family History](#) (Grades PreK–2)—**McREL**
- [Centennial Schools: Then and Now](#) (Grade level not listed; secondary social studies)—Utah Education Network

### General U.S. History

- [The American Experience](#)—PBS Online®
- [Cycles in U.S. History](#)—William Murray
- [Ease History](#)—Brian Collins
- [From Revolution to Reconstruction and What Happened Afterwards](#)—University of Groningen, Netherlands
- [Harvest of History](#)—Farmers' Museum; Cooperstown, NY
- [National History Education Clearinghouse \(NHEC\)](#)—Center for History and the New Media, George Mason University, and History Education Group, Stanford University.
- [Nebraskastudies.org](#)—Nebraska Educational Telecommunications; Nebraska Department of Education, Lincoln; & Nebraska State Historical Society, Lincoln\*
- [A Shared Past: Texas & the U.S. Since Reconstruction](#)—Bill Hardt
- [Smithsonian National Museum of American History](#)—Washington, D.C.
- [Tides in Early Texas History](#)—The Texas Tides Project\*

## Great Depression

- [Dust Bowl Depression](#) (Grades 5–8)—**McREL**
- [Reflections of Hunger and Poverty: the Works of Lange, Kollwitz, and Orozco](#) (Grades 5–8)—**McREL**

## Immigration and the immigrant experience

- [The Welcome Wagon](#) (Grades 3–4)—**McREL**
- [Exploring Our Roots](#) (Grades 7–12)—Sandy Bahan; Norman Central Middle/High School; Norman, OK
- [Immigration...the Changing Face of America](#)—The Library of Congress; Washington, D.C.
- [Lower East Side Tenement Museum](#)—New York, NY

## Impact of society on the environment

- [Environmentalism: Then and Now](#) (HS social studies)—**McREL**

## Indigenous peoples of the state and region

- [Caught Between Worlds: Frontier Life as Reflected in Captivity Narratives](#) (HS social studies)—**McREL\***
- [Creation Stories](#) (HS social studies)—**McREL**
- [Native American Sites](#)—Lisa A. Mitten; Middletown, CT\*

## Perspectives on federal Indian policy and westward expansion

- [Indian Boarding Schools: Civilizing the Native Spirit](#) (Grades 6–9)—The Learning Page; The Library of Congress; Washington, D.C.

## Political parties, campaigns, and elections

- [Presidents of the United States](#)—Internet Public Library; Ann Arbor, MI

## Popular culture

- [The American Folklife Center](#)—The Library of Congress; Washington, D.C.
- [Those Were The Days™](#)—440 International\*

## Revolutionary War

- [Give Me Liberty!](#) (Grades 6–8)—**McREL**
- [Taxed Tempers Toss Tea To Tides](#) (Grades 5–8)—**McREL**
- [Historic Valley Forge](#)—Independence Hall Association; Philadelphia, PA

## Roles and experiences of diverse groups

- [The African American Mosaic](#)—The Library of Congress; Washington, D.C.
- [African American Perspectives: The Murray Pamphlets](#)—The Library of Congress; Washington, D.C.
- [Native American Sites](#)—Lisa A. Mitten; Middletown, CT\*
- [NativeWeb](#)—NativeWeb, Inc.

## Roles of individuals in history

- [Ulysses S. Grant](#) (Grade level not listed; secondary social studies)—PBS Online®
- [Benjamin Franklin: Glimpses of the Man](#)—Franklin Institute; Philadelphia, PA
- [Biography.com](#)—A&E Television Networks
- [biography-center](#)—EuropeanServers SARL
- [Historic Mount Vernon](#)—Mount Vernon Ladies' Association; Mount Vernon, VA\*
- [Martin Luther King Jr. Papers Project](#)—Stanford University, California\*
- [Monticello: The Home of Thomas Jefferson](#)—Thomas Jefferson Memorial Foundation; Monticello, VA\*
- [The Papers of George Washington](#)—University of Virginia, Charlottesville

## Settlement of the West

- [The Oregon Trail](#)—Idaho State University, Pocatello
- [New Perspectives on the West](#)—PBS Online® & WETA - Washington, D.C.

## Significant ideas and events in the state's history

- [Abbie Gardner Sharp Cabin](#) (Grades 5-12) Prairie Voices. Iowa History Online, Malcolm Price Laboratory School  
Department of Curriculum and Instruction, [University of Northern Iowa](#), Cedar Falls,
- [Harvest of History](#) (Grade 4)—Farmers' Museum; Cooperstown, NY
- [History of the Local Community](#) (Grades 6-12)—Linda M. Sander; Kenneth Henderson Middle School; Garden City, KS
- [The Portal to Texas History](#) (Multiple lessons; multiple grades)—University of North Texas, Denton

## Social experience of the Civil War

- [The Home Front \(Circa 1863\)](#) (HS social studies)—**McREL**
- [Timeline of the Civil War, 1861](#)—The Library of Congress; Washington, D.C. \*
- [The U.S. Civil War Center](#)—Louisiana State University, Baton Rouge
- [The Valley of the Shadow: Two Communities in the American Civil War](#)—University of Virginia, Charlottesville

## Symbols and historic landmarks

- [What's Your State Symbol?](#) (Grades K-2)—**McREL**
- [The Flag](#) (Grade 2)—NationMaster.com
- [Mystery History](#) (Grade level not listed; elementary social studies)—Utah Education Network
- [Symbols of Utah](#) (Grade level not listed; elementary social studies)—Utah Education Network
- [Historic Mount Vernon](#)—Mount Vernon Ladies' Association; Mount Vernon, VA\*
- [Monticello: The Home of Thomas Jefferson](#)—Thomas Jefferson Memorial Foundation; Monticello, VA\*
- [White House Facts](#)—Washington, D.C.

## Territorial expansion in the United States, early 19th century

- [Adventures with Lewis and Clark](#) (Grades 7-8)—**McREL**\*
- [Westward Ho](#) (Grades 6-8)—**McREL**
- [Exploring the West from Monticello: Columbus to Lewis and Clark](#)—University of Virginia, Charlottesville\*

## Women's movement for civil rights and equal opportunities

- [Herstory](#) (Grades 4-12)—The Learning Page; The Library of Congress; Washington, D.C.\*
- [Tupperware](#) (Grade level not listed; secondary social studies)—PBS Online®

## *World History*

### Black Death in the 14th century

- [Role-playing the Plague](#) (HS social studies)—**McREL**

### Christian Europe after 1000 CE

- [The Age of King Charles V](#)—The Bibliothèque Nationale de France

### Comparative analysis of culture and society

- [Country Studies: Area Handbook Series](#)—The Library of Congress; Washington, D.C.

### Cultural perspectives

- [An Introduction to Ancient World Cultures on the World Wide Web](#)—Exploring Ancient World Cultures; University of Evansville, Indiana

### Development of ancient cultures and civilizations

- [Civilization Pie](#) (Grades 7-8)—**McREL**
- [The Daily Athenian: A Greek newspaper project](#) (Grades 5-12)—PBS Online®

### Diversity of cultures

- [Accepting Me, Accepting You](#) (Grade 2)
- [Tales From Around the World](#) (Grades K–2)—**McREL**
- [Multicultural Journeys](#) (Grades 7–12)—Paulette Buster

### **Early civilization in Southwest Asia and India**

- [Harappa: Glimpses of South Asia before 1947](#)—Harappa.com
- [Pyramids: The Inside Story](#)—PBS Online® & WGBH; Washington, D.C.

### **Feudalism, monarchies, and city-states in Europe**

- [The Lost Village - The Story of Wharram](#)—Kenneth Tompkins; The Richard Stockton College of New Jersey
- [Monarchs of Britain](#)—Britannia.com, LLC

### **French Revolution and the Age of Revolution**

- [Napoleon](#)—The Napoleon Foundation; Paris, France

### **General World History**

- [Internet Ancient History Sourcebook](#)—Paul Halsall. Internet History Sourcebooks Project. (Grades 9–12)
- [History Link 101](#)—Eric Rymer
- [The Perseus Project - Ancient Greek Texts](#)—Department of the Classics; Tufts University; Medford, MA

### **Historical periods**

- [Eighteenth Century Resources](#)—Jack Lynch; Rutgers University; Newark, NJ
- [Medieval Sourcebook](#)—Center for Medieval Studies; Fordham University; New York, NY\*

### **Major political, social, economic, military, and intellectual events, 1789 – 1914**

- [Battle of Waterloo, 1815](#)—Napoleonic Wars

### **Mayan civilization**

- [Let's Go Maya!](#) (Grades 5–6)—**McREL**
- [Reading Maya Hieroglyphs](#) (Grade level not listed; elementary social studies)—PBS Online®

### **Mongol empire**

- [The Golden Horde](#) (Grades 7–8)—**McREL**

### **Power and European states, 16th–18th centuries**

- [Treasures of the Czars](#)—St. Petersburg Times, Florida

### **Renaissance, Reformation, and Catholic Reformation**

- [Personalities of the Renaissance](#) (Grades 6–12)—**McREL**
- [Martin Luther-Voicing Your Opinion](#) (HS social studies)—PBS Online®
- [Renaissance Man Comparison Poster](#) (Grades 6–12)—PBS Online®
- [Leonardo da Vinci](#)—The Museum of Science; Boston, MA

### **Rise of social, political, and economic revolutions**

- [A Complete Information on Gandhi](#)—Bombay, India

### **Scientific Revolution and the Enlightenment**

- [Salon Simulation](#) (HS social studies)—**McREL**

### **Scope and human costs of World War I**

- [World War I: Trenches on the Web](#)—Great War Society

### **Scope and human costs of World War II**



- [Voices of Tragedy and Horror: Remembering the Holocaust](#) (HS social studies)—**McREL**
- [Prisoners in Another War](#) (HS social studies)—PBS Online®
- [Anne Frank Center USA](#)—New York, NY
- [Fifty Years from Trinity](#)—Seattle Times Company, Washington\*
- [World War II: The Internment of German American Civilians](#)—Arthur D. Jacobs, Major, USAF Retired

### **Social class structure and interactions**

- [Chess—A Game or Rules of Society?](#) (Grades 7–12)—Paul Chase; Blackfoot High School; Idaho
- [The History of Costume](#)—C. Otis Sweezey; Southern Illinois University, Edwardsville
- [Medieval Society](#)—Dr. Ellis L. Knox; Boise State University, Idaho

### **Unification of the Mediterranean basin under Roman rule**

- [Great Caesar's Ghost](#) (Grades 5–6)—**McREL**
- [The Legacy of Rome](#) (Grades 6–8)—**McREL**

### **Historical Understanding**

#### **Chronological thinking**

- [Government Action Timelines](#) (Grade level not listed; secondary social studies)—Education Place®; Houghton Mifflin\*
- [From '00 to '10: Defining the Decade](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY
- [Record a Moment in Time](#) (Grade level not listed; elementary social studies)—Education Place®; Houghton Mifflin
- [Those Were The Days™](#)—440 International\*

#### **Conducting historical research**

- [Adventures with Lewis and Clark](#) (Grades 7–8)—**McREL\***
- [Knowing Where You Are](#) (Grade level not listed; elementary social studies)—Education Place®; Houghton Mifflin\*

#### **Historical analysis and interpretations**

- [Interpreting Christopher Columbus](#) (HS social studies)—**McREL\***

#### **Historical change and continuity**

- [From These Beginnings](#) (Grade level not listed; elementary social studies)—Education Place®; Houghton Mifflin\*

#### **Historical documents, treaties, and agreements**

- [American Memory](#)—The Library of Congress; Washington, D.C.
- [The Avalon Project](#)—Yale Law School; New Haven, CT
- [Camp Harmony Exhibit \(Japanese-American Internment\)](#)—University of Washington, Seattle\*
- [Chickasaw Historical Research Page](#)—Kerry M. Armstrong\*
- [Colonial America Rare Map Collection](#)—University of Georgia Libraries, Athens
- [Rare Book, Manuscript, and Special Collections Library](#)—Duke University; Durham, NC
- [Documents Center](#)—University of Michigan, Ann Arbor
- [Hanover Historical Texts Project](#)—Department of History; Hanover College, Indiana\*
- [Letters from an Iowa Soldier in the Civil War](#)—Bill Proudfoot
- [Medieval Sourcebook](#)—Center for Medieval Studies; Fordham University; New York, NY\*
- [The Papers of George Washington](#)—University of Virginia, Charlottesville\*
- [U.S. Territorial Maps: 1775-1920](#)—University of Virginia, Charlottesville

#### **Historical sources**

- [America's First Look into the Camera](#)—The Library of Congress; Washington, D.C.
- [Camp Harmony Exhibit \(Japanese-American Internment\)](#)—University of Washington, Seattle\*

- [Chickasaw Historical Research Page](#)—Kerry M. Armstrong\*
- [Dead Sea Scrolls](#)—Project Judaica Foundation; Washington, DC
- [Hanover Historical Texts Project](#)—Department of History; Hanover College, Indiana\*
- [This Day in History](#)—A&E Television Networks\*
- [Using Primary Sources](#)—The Library of Congress; Washington, D.C.
- [The Wolf Lewkowicz Collection \(1922-1945\)](#)—Massachusetts Institute of Technology, Cambridge

## Historical timelines

- [Family Timelines](#) (Grade level not listed; elementary social studies)—Education Place®; Houghton Mifflin
- [Government Action Timelines](#) (Grade level not listed; middle school social studies)—Education Place®; Houghton Mifflin\*
- [A Chronology of Medieval Europe](#)—Exploring Ancient World Cultures; University of Evansville, Indiana
- [Human History of the Grand Canyon](#)—Bob Ribokas
- [Links to Texas History Sites of Interest](#)—Victoria Regional History Center, University of Houston
- [This Day in History](#)—A&E Television Networks\*
- [Timeline of the Civil War, 1861](#)—The Library of Congress; Washington, D.C.\*
- [Nebraskastudies.org](#)—Nebraska Educational Telecommunications; Nebraska Department of Education, Lincoln; & Nebraska State Historical Society, Lincoln\*

## Language Arts

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### General language arts resources

- [K-12 Language Arts Lesson Plans](#) (Multiple lessons, multiple grades)—Dr. Scott Mandel; Teachers Helping Teachers
- [Lesson Plans: Literature, Writing, Poetry & Library Skills](#) (Multiple lessons, multiple grades)—Ray Saitz; Outta Ray's Head
- [Literature CyberGuides](#) (Multiple lessons, multiple grades)—Schools of California Online Resources for Education
- [PBS TeacherSource](#) (Multiple lessons, multiple grades)—PBS Online®
- [ReadWriteThink](#) (multiple lessons, multiple grades)—National Council of Teachers of English; International Reading Association
- [ReadWorks.org](#) (multiple lessons, multiple grades)—Urban Education Exchange
- [The Learning Network](#) (Multiple lesson, multiple grades )—The New York Times
- [Alex Catalog of Electronic Texts](#)—Eric Lease Morgan; South Bend, IN
- [Bibliomania Fiction Library](#)—Bibliomania.com Ltd.
- [Common Core State Standards](#)—Common Core State Standards Initiative
- [The Big Six™](#)—Big 6 Associates, LLC
- [National Council of Teachers of English](#)—Urbana, IL
- [The Learning Network: Teaching & Learning With The New York Times](#); New York, NY
- [The On-line Books Page](#)—University of Pennsylvania Library, Philadelphia
- [PARCC Model Content Frameworks](#)—Partnership for Assessment of Readiness for College and Careers; Achieve
- [Project Gutenberg](#)—Michael Hart
- [The Scriptorium: Special Collections Library](#)—Duke University Rare Book, Manuscript, and Special Collections Library; Durham, NC
- [Transforming Ideas for Teaching and Learning to Read](#)—U.S. Dept. of Education; Washington, D.C.
- [Voice of the Shuttle](#)—Alan Liu; University of California, Santa Barbara

### Interactive activities and resources for kids

- [Hangman](#) (Grades 1–10)—Kidscom.com

- [Stories from the Web](#)—Birmingham Libraries; Birmingham, UK

## Reading

### Critical reading

- [Analyzing Famous Speeches as Arguments](#) (9–12)—Melissa Weeks Noel; ReadWriteThink, NCTE
- [Briefly Noted: Practicing useful annotation strategies](#) (secondary)—Dinah Mack, Holly Epstein Ojalvo; The Learning Network, The New York Times
- [Building a Case for Clues](#) (Grades 3–5)—**McREL**
- [Cause and Effect](#) (Grade 2)—ReadWorks.org
- [Compare-Contrast, Cause-Effect, Problem-Solution: Common 'text types' in The Times](#) (Secondary)—Katherine Schulten; The Learning Network, The New York Times
- [Drawing Conclusions](#) (Grade 3)—RadWorks.org
- [Declaration of Independence](#) (Grades 9–12)—Shelly Leuthrold; teachers.net
- [Is It Fact or Opinion?](#) (Grades 6–8)—**McREL**
- [Main Idea](#) (Grade 3)—ReadWorks.org
- [Once Upon a Time...](#) (Kindergarten–Grade 2)—**McREL**
- [The Times and the Common Core Standards: Reading strategies for "Informational Text"](#) (Grades 3–12)—Katherine Schulten; The Learning Network, The New York Times
- [Two Sides, Same Coin](#) (Grades 9–12)—**McREL\***

### Decoding/word identification

- [There Was an Old Lady...](#) (Grades 3–5)—**McREL**
- [Compound Words](#) (Grades 1–2)—Spellingcity.com; Vocabulary.co.il
- [I Am a Word: Words as Names](#) (Grades 1–2)—Paul Many; K12 Academics
- [Activities to Reinforce and Teach Sight Words](#) (Elementary)—Sharon Hall; Teachers.net
- [MyVocabulary.com](#)—Vocabulary University
- [English Vocabulary Building Games](#)—Vocabulary.co.il; Vkidz

### Grammar and usage

- [Jabberwocky](#) (Grades 6–8)—**McREL\***
- [MadLibs: Interactive Web](#) (Elementary)—It's a Mad Libs World
- [Pronoun Reference](#) (Grades K–2)—ReadWorks.org
- [Review your Students' Grammar, Spelling, and Punctuation](#) (Grades 9–12)—Bright Hub Education
- [Sentences](#) (Grades 1–2)—Busy Teachers' Cafe
- [Scrutinizing Stand-Ins: Working with nouns and pronouns](#) (Secondary)—Susan Behrens, Holly Epstein Ojalvo; The Learning Network, The New York Times

### Literary genres

- [Coyote and Anansi](#) (Grades 3–5)—**McREL**
- [Screenwriting 101](#) (Grades 9–12)—**McREL\***
- [A Storytelling Festival](#) (Grades 5–8)—Education Place®; Houghton Mifflin\*
- [Cap O'Rushes: A Folkloric and Literature Resource](#)—Carole Slattery; Newton, Massachusetts
- [Classics Archive](#)—Daniel C. Stevenson; Web Atomics
- [Classics at the Online Literature Library](#)—literature.org
- [The Complete Works of William Shakespeare](#)—Jeremy Hylton; Massachusetts Institute of Technology, Cambridge
- [Encyclopedia Mythica](#)—Encyclopedia Mythica
- [Folklore and Mythology](#)—D. L. Ashliman; University of Pittsburgh, Pennsylvania
- [Haiku for People!](#)—Kei Grieg Toyomasu
- [The Jack London Collection](#)—Berkeley Digital Library SunSITE; University of California, Berkeley
- [Mark Twain and Technology](#)—Carla Beard; Connersville High School; Connersville, IN
- [The Milton-L Home Page](#)—Kevin Creamer; University of Richmond, Virginia

## Literary style and techniques

- [Author's Voice in a Passage](#) (Grade 2)—ReadWorks.org
- [Creating an Anthology](#) (Grades 9–12)—**McREL**
- [Defining and Exploring an Author's Stylistic Choices](#) (Grades 9–12)—Traci Gardner; ReadWriteThink, NCTE
- [Point of View](#) (Grade 3)—ReadWorks.org
- [Point of View](#) (Grades 4–5)—LessonPlansPage.com; HotChalk, Inc

## Personal response to written/spoken text

- [Cinderella](#) (Grades 9–12)—**McREL**

## Reading fundamentals

- [Concepts in Print](#) (PreK–2)—BJ Subbiondo; e Teaching Assistance Program
- [Reading Buddies' Book Tour](#) (Prekindergarten)—**McREL**>

## Story/literary elements

- [A New Point of view](#) (Grades 6–8)—**McREL**
- [Character Unit](#) (Grade 3)—ReadWork.org
- [Examining Story Elements Using Story Map Comic Strips](#) (Grades 3–5)—Lisa Storm Fink; ReadWriteThink, NCTE
- [Nibble, Nibble, Little Mouse](#) (Grades 6–8)—**McREL**\*
- [Literary Terms and Devices](#) (Grades 6–8)—Rebecca Morrison; Teachers.net
- [Literary Terms: A practical glossary](#) (Grades 9–12)—Brian Moon; ReadWriteThink, NCTE

## Style, diction, and voice

- [Every Dog Has It's Day](#) (Grades 6–8)—**McREL**
- [Jabberwocky](#) (Grades 6–8)—**McREL**\*
- [Style and Voice](#) (Grades 9–12)—**McREL**
- [Using Sentence Structure to Improve Writing Style](#) (Grades 9–12)—Trent Lorcher; Bright Hub Education
- [Voice](#) (Grade 4)—ReadWorks.org

## Writing

### Informative writing

- [Expository Escapade](#) (Grades 6–8)—Lisa Gaines; ReadWriteThink, NCTE
- [Interview! Magazine](#) (Grades 6–8)—**McREL**\*
- [I Wonder: Writing scientific explanations with students](#) (Grades K–2)—Emily Manning; ReadWriteThink, IRA
- [Writing a Resume](#) (Grades 9–12)—**McREL**

### Literary/narrative writing

- [A New Point of view](#) (Grades 6–8)—**McREL**
- [My Writing Portfolio](#) (Kindergarten–Grade 2)—**McREL**
- [Nibble, Nibble, Little Mouse](#) (Grades 6–8)—**McREL**\*
- [Screenwriting 101](#) (Grades 9–12)—**McREL**\*
- [Zooming In, Zooming Out](#) (Kindergarten–Grade 2)—**McREL**
- [Picture This! Building Photo-Based Writing Skills](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY

## Media production

- [The Atlantic Online](#)—The Atlantic Monthly Group; Boston, MA
- [Journalism Education Association](#)—Kansas State University, Manhattan
- [Studentpress.org](#)—National Scholastic Press Association & Associated Collegiate Press

## Paragraph development

- [Scrambled Paragraphs](#) (Grades 3–5)—**McREL**
- [Successful Paragraphs](#) (Grades 4–6)—Martha Adams; Jefferson Elementary; Everett, WA

## Argument/Persuasive writing

- [Building a Better Argument](#) (Secondary)—FactCheckEd.org; Annenberg Classroom
- [Emotion or Reason?](#) (Grades 9–12)—**McREL**
- [Finding Common Ground: Using logical, audience-specific arguments](#) (Grades 9–12)—Susan Spangler; ReadWriteThink, NCTE
- [House and Holmes: A guide to deductive and inductive reasoning](#) (Secondary)—FactCheckEd.org; Annenberg Classroom
- [Persuade Me](#) (Grades 6–8)—**McREL**
- [Taxed Tempers Toss Tea To Tides](#) (Grades 5–6)—**McREL**

## Writing conventions/mechanics

- [Analyzing Grammar Pet Peeves](#) (Grades 9–12)—Susan Spangler; ReadWriteThink, NCTE
- [Eva's Code](#) (Grades 3–5)—**McREL**
- [Throw Capitals to the Wind](#) (Grades 9–12)—**McREL**
- [Spelling Practice - Yawn!](#) (Grade 3)—Vicki Jennings; Utah
- [Writing conventions](#) (Elementary)— Sarah Donstow; Teachers.net
- [OneLook® Dictionary Search](#)—OneLook®
- [Scripps Howard National Spelling Bee](#)—E.W. Scripps Company

## Writing for audience and purpose

- [A New Point of view](#) (Grades 6–8)—**McREL**
- [Two Sides, Same Coin](#) (Grades 9–12)—**McREL\***
- [Writing for Particular Audiences](#) (Grades 3–5)—**McREL**

## Writing process

- [And I Quote: A punctuation proofreading minilesson](#) (Grades 9–12)—ReadWriteThink, NCTE
- [Implementing the Writing Process](#) (Grades K–5)—ReadWriteThink, NCTE, IRA
- [Plan an Essay](#) (Grades 6–8)—Kerry LeBlanc; teacher.net
- [Proofreading/editing](#) (Grades 3–5)—Heather Connelly and Scott Hendershot; Maple Hill Elementary School; Middletown, NY
- [Online Writing Lab](#)—Purdue University; West Lafayette, IN
- [Paradigm Online Writing Assistant](#)—Chuck Guilford

## Writing research papers

- [A+ Research and Writing Guide for High School Students](#)—School of Information; University of Michigan, Ann Arbor
- [Writing Research Papers](#)—Purdue University; West Lafayette, IN

## Viewing

### Critical viewing

- [Ad Appeal](#) (Grades 3–5)—**McREL**
- [Commercial Appeal](#) (Grades 6–8)—**McREL\***

### Media production

- [Deconstructing Media Messages](#) (Grades 3–5)—**McREL**
- [Media Ownership and Control](#) (Grades 9–12)—**McREL**

### Style and techniques in visual media

- [Commercial Appeal](#) (Grades 6–8)—**McREL\***

## Speaking

### Oral composition and collaboration

- [Modeling Academic Writing Through Scholarly Article Presentations](#) (Grades 9–12)—Laura Hennessey DeSena; ReadWriteThink, NCTE
- [Reading with Strangers: Ways to study literature collaboratively](#) (Secondary)—Shannon Doyne, Holly Espstein Ojalvo; The Learning Network, The New York Times

## Research and Reference

### Locating sources/gathering information

- [Comparing Electronic and Print Texts About the Civil War Soldier](#) (Grades 6–8)—Janet Beyersdorfer; ReadWriteThink, IRA
- [Interview! Magazine](#) (Grades 6–8)—McREL\*
- [Subject Category Searching](#) (Grades 2–3)—CyberSmart! Curriculum; Common Sense Media
- [Use of materials, plagiarism, referencing](#) (Grades 6–12)—Viper: the anti-plagiarism scanner; Nottingham, England

### Organizing information and ideas

- [Research Building Blocks: Notes, quotes, and fact fragments](#) (Grades 3–5)—Lisa Storm Fink; ReadWriteThink, NCTE

## ESL/ELL

- [Let's Read it Again: Comprehension strategies for English-language learners](#) (Grades K–2)—Christine Kalemba; ReadWriteThink, NCTE
- [PIZZAZ! Creative Writing & Storytelling Ideas for ESL](#) (Multiple lessons, multiple grades)—Leslie Opp-Beckman; University of Oregon, Eugene
- [Teachers of English to Speakers of Other Languages \(TESOL\)](#)—Alexandria, VA

# Mathematics

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### General mathematics resources

- [Forum Web Units and Lessons](#) (Multiple lessons, multiple grades)—The Math Forum @ Drexel; Philadelphia, PA
- [Lesson Plan Library](#) (Multiple lessons, multiple grades)—Discovery Education
- [Lesson Plans & Reproducibles](#) (Multiple lessons, multiple grades)—Scholastic, Inc
- [Mathematics K to 7](#) (Kindergarten–Grade 7)—British Columbia Ministry of Education, Canada
- [Mathematics Lesson Plans](#) (Multiple lessons, multiple grades)—Educator's Reference Desk; Information Institute of Syracuse, New York
- [MathMagic: Telecommunications Project](#) (Multiple lessons, multiple grades)—The Math Forum @ Drexel; Philadelphia, PA
- [PBS TeacherSource](#) (Multiple lessons, multiple grades)—PBS Online®
- [PlaneMath Activities](#) (Multiple lessons, multiple grades)—InfoUse & National Aeronautics and Space Administration (NASA)
- [SMILE Program Mathematics Index](#) (Multiple lessons, multiple grades)—Illinois Institute of Technology; Chicago, IL
- [Suzanne's Math Lessons](#) (Multiple lessons, multiple grades)—Suzanne Alejandre; The Math Forum @ Drexel; Philadelphia, PA
- [Word Problems for Grades 5-12](#) (Grades 5–12)—St. Francis Xavier University; Nova Scotia, Canada
- [Visual Math Learning](#) (Multiple lessons, multiple grades)—Wayne Allen Bateman
- [AAA Math](#)—John Banfill; Albuquerque, New Mexico
- [Algebasics](#)—Atlantic Beach, FL
- [Algebra - Class.com](#)—Karin Hutchinson, FL

- [Algebra Help](#)—James W. Brennan
- [Algebra.help](#)—John R. Mishanski
- [AplusMath](#)—Walt Disney Internet Group
- [Ask Dr. Math™](#)—Math Forum @ Drexel; Philadelphia, PA
- [Dave's Short Trig Course](#)—David E. Joyce; Clark University
- [Elementary School Teachers' Place](#)—The Math Forum @ Drexel; Philadelphia, PA
- [Great Explorations in Math and Science](#)—University of California, Berkeley
- [Internet Mathematics Library](#)—The Math Forum @ Drexel; Philadelphia, PA
- [Math Archives](#)—University of Tennessee, Knoxville
- [Math Central](#)—University of Regina, Canada
- [Math and Children's Literature](#)—Carol Hurst & Rebecca Otis; Westfield, MA
- [Math League - Geometry](#)—Math League Press
- [Math Teacher Link](#)—University of Illinois at Urbana-Champaign
- [Mathematical Quotations Server](#)—Furman University; Greenville, SC
- [The Math Forum](#)—Math Forum @ Drexel; Philadelphia, PA
- [Multiplication.com](#)—Krimsten Publishing; Prosser, WA
- [National Council of Teachers of Mathematics \(NCTM\)](#)—Reston, VA
- [Trends in International Mathematics and Science Study \(TIMMS\)](#)—National Center for Education Statistics; Washington, D.C.

### Addition/subtraction

- [Addition is the Inverse of Subtraction](#) (Kindergarten–Grade 2)—**McREL**
- [Multiplication and Addition](#) (Grades 3–5)— **McREL\***
- [Taking Numbers Personally](#) (Kindergarten–Grade 2)—**McREL\***
- [The Abacus](#)—Luis Fernandes\*
- [Mr. Martini's Classroom: Math Practice](#)—Stanley Jurewicz\*

### Analytic geometry

- [Geometry Problem of the Week](#)—Math Forum @ Drexel; Philadelphia, PA

### Basic and linear measures

- [Assessing the Physical World](#) (Kindergarten–Grade 2)—**McREL\***
- [Counting Coins](#) (Kindergarten–Grade 2)—**McREL**
- [New Pen at the Zoo](#) (Grades 3–5)—**McREL\***

### Data collection and sampling

- [The Hand Squeeze](#) (Elementary)—**Cynthia Lanius**
- [Data Collection and Sampling](#) (Grades 6–8)—**Office of Science Education Opportunities; Oregon**
- [The History and Use of Sampling Methods](#) (Grades 6–12)—**PBS The First Measured Century, Ben Wattenberg**
- [American Statistical Association](#)—Alexandria, VA

### Data organization and display

- [Data Shuffle](#) (Grades 6–8)—**McREL**
- [Have You Ever Seen So Much Data?](#) (Grades 3–5)—**McREL**
- [Jumping to Conclusions](#) (Kindergarten–Grade 2)—**McREL**

### Decimals

- [Equivalent Numbers](#) (Grades 3–5)—**McREL\***

### Equations and inequalities

- [The Equality Sisters](#)— Richard L. Meehan; Stanford University, California
- [Experiment and Explore Mathematics](#)—Dr. A. Dendane; United Arab Emirates University\*

### Experimental probability

- [Understanding Probability](#) (Grades 6–8)—**Discovery Education**

## Functions

- [Experiment and Explore Mathematics](#)—Dr. A. Dendane; United Arab Emirates University\*

## Fractions

- [Equivalent Numbers](#) (Grades 3–5)—**McREL\***

## Graphs and graphing systems

- [Create a Graph](#)—National Center for Graphing Statistics

## Mathematical enterprise

- [The MacTutor History of Mathematics](#)—University of St Andrews, Scotland
- [The Proof: Fermat's Last Theorem](#)—PBS Online®
- [Women Mathematicians](#)—Agnes Scott College; Atlanta, GA

## Measurement estimation

- [Assessing the Physical World](#) (Kindergarten–Grade 2)—**McREL\***
- [Links Learning](#)—Links Learning; Olympia, WA

## Multiplication/division

- [Multiplication and Addition](#) (Grades 3–5)—**McREL\***
- [The Abacus](#)—Luis Fernandes\*
- [Mr. Martini's Classroom: Math Practice](#)—Stanley Jurewicz\*

## Patterns

- [Parade of People](#) (Kindergarten–Grade 2)—**McREL**
- [Fibonacci Numbers and Nature](#) (Multiple lessons, multiple grades)—Dr. Ron Knott; Surrey University; Guildford, UK
- [A Fractals Unit for Elementary & Middle School Students](#) (Grades 1–6)—Cynthia Lanius; Rice University; Houston, TX
- [The Dance of Chance](#)—Center for Polymer Studies & Boston Museum of Science, Massachusetts
- [The Dynamical Systems and Technology Project](#)—Boston University, Massachusetts
- [Fibonacci Numbers & the Golden Section](#)—Dr. Ron Knott; Surrey University; Guildford, UK
- [MegaMath](#)—Los Alamos National Laboratory, New Mexico
- [Pentominos](#)—Jürgen Köller\*
- [The Spanky Fractal Database](#)—Noel Giffin; Canada's National Laboratory for Particle and Nuclear Physics
- [Tesselation Tutorials](#)—Suzanne Alejandre; Math Forum @ Drexel; Philadelphia, PA

## Perimeter/area/circumference

- [New Pen at the Zoo](#) (Grades 3–5)—**McREL\***
- [Areas, Volumes, and Surface Areas](#)—David Manura

## Problem solving

- [Problem solving: Math, Episode 1](#) (Grades K–5)—**Discovery Education**
- [Problem solving: Math, Episode 2](#) (Grades K–5)—**Discovery Education**

## Proof and empirical verification

- [Getting to the Bottom of the Pyramids](#) (Grades 6–8)—**McREL**

## Ratio/proportion/percent

- [Equivalent Numbers](#) (Grades 3–5)—**McREL\***
- [Stars and Stripes](#) (Grades 6–8)—**McREL**

## Sequences and series



- [Chessboard Series](#) (Grades 9–12)—**McREL\***

### Shapes and figures

- [Symmetry](#) (Grades 3–5)—**McREL**
- [Flag Folding](#) (Grades 3–5)—**McREL**
- [Pentominos](#)—Jürgen Köller\*
- [Polyhedra](#)—Math Forum @ Drexel; Philadelphia, PA
- [Virtual Reality Polyhedra](#)—George W. Hart; Northport, NY

### Trigonometry

- [Elevation at its Peak](#) (Grades 9–12)— **McREL**
- [Trigonometry in Action](#) (Grades 9–12)—**McREL**

### Weight and mass

- [Assessing the Physical World](#) (Kindergarten–Grade 2)—**McREL\***

### Whole numbers/place value/numeration

- [More or Less Than](#) (Kindergarten–Grade 2)—**McREL**
- [Ordinal Numbers](#) (Kindergarten–Grade 2)—**McREL\***
- [Taking Numbers Personally](#) (Kindergarten–Grade 2)—**McREL\***
- [Reinforcement Lesson in Place Value](#) (Grades 2–4)—Morgan Cottle; Ashland, OR
- [Place-Value: Problem-Solving and Written Assessment Using Digit-Correspondence Tasks](#)—Sharon Ross & Elisa Sunflower; California State University, Chico
- [The Prime Page](#)—Chris Caldwell; University of Tennessee at Martin

## Multi/Interdisciplinary

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### General multi/interdisciplinary resources

- [Deconstructing Dubai: Considering Questions Posed By the New World's Tallest Building](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY
- [Gang of 15](#) (Grades 4–10)—Eric Enholm; Walnut Junior High School; Grand Island, NE
- [The Plague](#) (High School)—Brown University; Providence, RI
- [Terrorism Today: Investigating Al Qaeda's Presence Around the World](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY
- [Using Popular Music to Teach K–12 Curriculum](#) (Multiple lessons, multiple grades)—Rock and Roll Hall of Fame and Museum; Cleveland, OH
- [What Were They Thinking? Exploring Teen Brain Development](#) (Grades 6–12)—The Learning Network: Teaching & Learning With The New York Times; New York, NY
- [Use of materials, plagiarism, referencing](#) (Grades 6–12)- Viper: the anti-plagiarism scanner; Nottingham, England
- [actDEN](#) - ACT360° Media
- [The Gateway to Educational Materials Project \(GEM\)](#) - Syracuse University, New York
- [Interactive Resources, Collaborative Projects and Real Time Data](#) - Center for Innovation in Engineering and Science Education; Stevens Institute of Technology; Hoboken, NJ
- [The Learning Network: Teaching & Learning With The New York Times](#); New York, NY
- [4Teachers.org Educator's Resources](#) - Advanced Learning Technologies; University of Kansas, Lawrence

# Science

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## General science resources

- [Access Excellence® Activities Exchange](#) (Multiple lessons, Secondary)—The National Health Museum; Washington, D.C.
- [Cool Science for Curious Kids](#) (Secondary)—Howard Hughes Medical Institute; Chevy Chase, MD
- [Fun Experiments](#) (Multiple lessons, Grades K–12)—Reach out!; University of Michigan, Ann Arbor
- [The K–8 Aeronautics Internet Textbook](#) (Grades K–8)—NASA's Learning Technologies Project & Cislunar Aerospace, Inc.
- [PBS Teacher Source](#) (Grades K–12)—PBS Online®
- [Science Activities](#) (Grades K–8)—The Franklin Institute Online; Philadelphia, PA
- [The Thinking Fountain](#) (Multiple lessons, multiple grades)—Science Museum of Minnesota, St. Paul
- [Chemistry Resources](#) (Secondary)—Lapeer County Information Depot, Michigan
- [Biology4Kids](#)—Andrew Rader Studios
- [Biology on the Net](#)—Botany Department; University of the Western Cape, South Africa
- [The Field Museum: On-line Exhibits](#)—Chicago, IL
- [The Microbe Zoo](#)—Digital Learning Center for Microbial Ecology; Michigan State University, East Lansing
- [Microbes Info](#)—Al Chan
- [National Park Service](#)—U.S. Department of the Interior; Washington, D.C.\*
- [National Wildlife Federation](#)—Reston, VA
- [PHET](#) - University of Colorado; Boulder, CO
- [Chem4Kids](#)—Andrew Rader Studios
- [The Chemistry Hypermedia Project](#)—Brian Tissue; Virginia Polytechnic Institute and State University, Blacksburg
- [How Things Work](#)—Louis A. Bloomfield, University of Virginia
- [PHET](#) - University of Colorado; Boulder, CO
- [Physics Lecture Demonstrations](#)—University of California, Berkeley
- [PhysicsWeb](#)—The Institute of Physics; Bristol, UK
- [Steel Rails and Iron Horses: Science and Technology Transform a Continent](#)—Bureau of Land Management; Washington, D.C.\*
- [American Museum of Natural History](#)—New York, NY
- [Ask-A-Geologist](#)—U.S. Geological Survey; Washington, D.C.
- [EE-link](#)—North American Association for Environmental Education
- [Jet Propulsion Laboratory](#)—National Aeronautics and Space Administration (NASA)\*
- [National Park Service](#)—U.S. Department of the Interior; Washington, D.C.\*
- [PHET](#) - University of Colorado; Boulder, CO
- [Space Science and Engineering Center](#)—University of Wisconsin-Madison
- [WINDandSEA](#)—National Oceanic and Atmospheric Administration; Washington, D.C.
- [Geology.com](#)—Dr. Hobart M. King
- [Lesson Plans and Activities](#) (Multiple lessons, Grades K–12)—Nebraska Earth Science Education Network; University of Lincoln-Nebraska
- [Project Dragonfly](#)—Miami University - Oxford, Ohio; & National Science Teachers Association - Arlington, VA
- [Eisenhower National Clearinghouse for Mathematics and Science Education](#)—Ohio State University, Columbus
- [The Exploratorium®](#)—San Francisco, CA
- [The Franklin Institute Science Museum](#)—Philadelphia, PA
- [Frank Potter's Science Gems](#)—Frank Potter
- [The MadSci® Network](#)—Washington University School of Medicine; St. Louis, MO
- [National Academy of Sciences](#)—Washington, D.C.
- [National Science Education Standards](#)—National Academy of Sciences; Washington, D.C.

- [National Science Foundation World Wide Web Server](#)—Arlington, VA
- [National Science Teachers Association](#)—Arlington, VA
- [Project 2061](#)—American Association for the Advancement of Science; Washington, D.C.
- [The Science Learning Network](#)—Science Learning Network
- [Science News for Kids](#)—Science Service; Washington, D.C.
- [Serendip](#)—Bryn Mawr College, Pennsylvania

### Interactive activities and resources for kids

- [Neuroscience for Kids: Experiments and Activities](#) (Multiple lessons, Grades 3–8)—Eric H. Chudler; University of Washington, Seattle
- [The pH Factor](#) (Grades 3–8)—Miami Museum of Science\*
- [Endangered Species of Hawaii](#)—Lena Kanemori; Enchanted Lake Elementary School; Kailua, HI\*
- [Entomology Youth Facts](#)—Department of Entomology; University of Kentucky, Lexington\*
- [Auroras: Paintings in the Sky](#)—The Exploratorium®; San Francisco, CA\*
- [The Energy Story](#)—Energy Quest; California Energy Commission\*
- [The Science of Hockey](#)—The Exploratorium®; San Francisco, CA\*
- [Amazing Space](#)—Space Telescope Science Institute & National Aeronautics and Space Administration (NASA)\*
- [Exploring Space](#)—Space Science Institute; Boulder, CO\*
- [Hurricane: Storm Science](#)—Miami Museum of Science, Florida\*
- [Windows to the Universe](#)—University Corporation for Atmospheric Research; Boulder, CO\*

## Life Science

### Characteristics of organisms

- [It's All In the Genes](#) (Grades 3–5)—McREL
- [Same Yet Different](#) (Grades K–2)—McREL
- [Have You Ever Met a Tree?](#) (Elementary)—Reach Out!; University of Michigan, Ann Arbor

### Classification of organisms

- [One of These Things Is Not Like the Other](#) (Grades 3–5)—McREL
- [Animal or Plant?](#) (Grades K–2)—Reach Out!; University of Michigan, Ann Arbor
- [African Primates at Home](#)—M.K. Holder; Indiana University, Bloomington
- [Animal Information Database](#)—Busch Entertainment Corporation
- [Bats: The Only Flying Mammal!](#)—Contra Costa County Office of Education; Pleasant Hill, CA
- [Digital Learning Center for Microbial Ecology](#)—Comm Tech Lab; Michigan State University, East Lansing
- [Entomology Image Gallery](#)—Department of Entomology; Iowa State University, Ames
- [Entomology Links](#)—Department of Entomology; Texas A&M University, College Station
- [Entomology Youth Facts](#)—Department of Entomology; University of Kentucky, Lexington\*
- [FONZ: Friends of the National Zoo](#)—National Zoological Park, Washington, D.C.\*
- [Insect Biology and Ecology: A Primer](#)—Cornell University; Ithaca, NY
- [Living Things](#)—Franklin Institute; Philadelphia, PA\*
- [San Diego Zoo](#)—Zoological Society of San Diego, CA\*
- [The Tree of Life Project](#)—David R. Maddison\*
- [WhaleNet](#)—Wheelock College; Boston, MA\*

### Diversity and unity among organisms

- [Fossil Fun](#) (Grades 3–5)—McREL
- [The Tree of Life Project](#)—David R. Maddison\*

### Interdependence of organisms

- [Broken Chains and Tangled Webs](#) (Grades 6–8)—McREL

## Molecular basis of heredity

- [GENE: Genetics Education Network](#)—Kansas State University, Manhattan
- [National Human Genome Research Institute](#)—Bethesda, MD
- [The Natural History of Genes](#)—Genetic Science Learning Center; University of Utah, Salt Lake City

## Natural selection and biological evolution

- [Not So Super Superbugs](#) (Grades 9–12)—McREL
- [Co-evolution of Plants and Pollinators](#) (Grades 9–12)—PBS Online®
- [Dogs and More Dog](#) (Grades 9–12)—PBS Online®
- [Paleontology Without Walls](#)—University of California Museum of Paleontology, Berkeley\*

## Populations and ecosystems

- [Aquatic Network](#)—Seacoast Information Services, Inc.
- [OceanLink](#)—Bamfield Marine Sciences Centre; Bamfield, British Columbia\*
- [Earth Science Resources and Fact Sheets](#)—U.S. Geological Survey; Washington, D.C.
- [Endangered Species](#)—EE-Link
- [Endangered Species of Hawaii](#)—Lena Kanemori; Enchanted Lake Elementary School; Kailua, HI\*
- [Endangered Species Program](#)—U.S. Fish & Wildlife Service; Washington, D.C.
- [FONZ: Friends of the National Zoo](#)—National Zoological Park; Washington, D.C.\*
- [The Jane Goodall Institute](#)—Silver Spring, MD
- [San Diego Zoo](#)—Zoological Society of San Diego, CA\*
- [Sea and Sky](#)—J.D. Knight\*
- [Wealth of the Rainforest, Pharmacy to the World](#)—Raintree Nutrition, Inc.; Austin, TX
- [WhaleNet](#)—Wheelock College; Boston, MA\*

## Regulation and behavior

- [Africanized Honey Bees on the Move](#) (Grades K–12)—University of Arizona, Tucson\*

## Relationships between organisms and the environment

- [It's a Wolf's Life](#) (Grades 3–5)—McREL
- [Our Changing World](#) (Grades 3–5)—McREL
- [To Grow a Plant](#) (Grades K–2)—McREL
- [What in the World Are You Doing?](#) (Grades 3–5)—McREL
- [Environmental Resources for Students and Teachers](#) (Grades 3–12)—Environmental Protection Agency; Washington, D.C.
- [Environmental Technology is an Ancient Science: Hupobi Heritage Project](#) (Grades 3–12)—Bureau of Land Management; Washington, D.C.
- [The Journey North Teacher's Manual](#) (Grades 4–8)—Annenberg/CPB - Washington, D.C.; & Journey North - Charlotte, Vermont
- [SeaWorld/Busch Gardens Animal Information Database](#) (Multiple lessons, multiple grades)—Busch Entertainment Corporation\*
- [The Ancient Bristlecone Pine](#)—Leonard Miller
- [Bagheera: A Web Site for Our Endangered Species](#)—Craig Kasnoff
- [FINS: Fish Information Service](#)—Active Window Productions, Inc
- [Living Things](#)—Franklin Institute; Philadelphia, PA\*

## Reproduction

- [Seeing Double](#) (Grades 6–8)—McREL
- [Amphibian Embryology Tutorial](#)—Jeff Hardin; University of Wisconsin-Madison
- [Embryo Development](#)—University of Pennsylvania Health System, Philadelphia

## Structure and function in cells

- [Pineapple JELL-O?](#) (Grades 9–12)—McREL
- [The Giant Cell](#) (Grades K–3)—The Franklin Institute Online; Philadelphia, PA

- [Healthy Heart](#) (Grade 5)—The Franklin Institute Online; Philadelphia, PA
- [Heartbeat](#) (Grades K–3)—The Franklin Institute Online; Philadelphia, PA
- [Proteins](#) (Secondary)—Newton's Apple®; Twin Cities Public Television
- [CELLS alive!](#)—James Sullivan; Quill Graphics; Charlottesville, VA

### Structure and function in organisms

- [Creatures Features](#) (Grades 3–5)—**McREL**
- [Africanized Honey Bees on the Move](#) (Multiple lessons, multiple grades)—University of Arizona, Tucson\*
- [Cow's Eye Dissection](#)—The Exploratorium®; San Francisco, CA
- [The Digital Anatomist](#)—University of Washington, Seattle
- [The Heart: An Online Exploration](#)—Franklin Institute; Philadelphia, PA
- [Human Anatomy Online](#)—INTELLIMED International Corporation
- [Mind and Machine Module](#)—Simon Catterall; Syracuse University, New York\*
- [Neuroscience Resources for Kids](#)—Eric Chudler; University of Washington, Seattle
- [The Whole Brain Atlas](#)—Keith A. Johnson, M.D. & J. Alex Becker
- [Primate Handedness and Brain Lateralization](#)—M.K. Holder; Indiana University, Bloomington

### Survival and extinction

- [Alaska's Cold Desert](#) (Grades 3–8)—Bureau of Land Management; Washington, D.C.

## Physical Science

### Atomic structure

- [The Particle Adventure: The Inner Workings of the Atom](#)—Particle Data Group; Lawrence Berkeley National Laboratory\*

### Atoms and molecules

- [Full of Air](#) (Grades 9–12)—**McREL**
- [Modeling Chemical Bonding](#) (Grades 9–12)—**McREL**
- [Proud to be Organic](#) (Grades 9–12)—**McREL**
- [If Your Cat Took Chemistry, Would She Eat This Stuff?](#) (Secondary)—Lapeer County Information Depot, Michigan
- [Indiana University Molecular Structure Center](#)—Indiana University, Bloomington
- [The Particle Adventure: The Inner Workings of the Atom](#)—Particle Data Group; Lawrence Berkeley National Laboratory\*

### Chemical reactions

- [Acid/Base Titration of an Eggshell](#) (Secondary)—Lapeer County Information Depot, Michigan
- [Analysis of Vitamin C](#) (Secondary)—Lapeer County Information Depot, Michigan
- [Antacid Tablet Race](#) (Secondary)—Aerospace Education Services Project; Oklahoma State University
- [The pH Factor](#) (Grades 3–8)—Miami Museum of Science, Florida\*

### Electricity and magnetism

- [Electricity and Magnetism](#) (Grades 6–8)—**McREL**
- [Light Bright](#) (Grades 6–8)—**McREL**
- [Magic Magnets](#) (Grades K–2)—**McREL**
- [Beakman's Electric Motor](#) (Grades 3–12)—Christopher M. Palmer; Intergraph Corporation
- [Ohm's Law](#) (Secondary)—Access Excellence®; The National Health Museum; Washington, D.C.
- [Auroras: Paintings in the Sky](#)—The Exploratorium®; San Francisco, CA\*

### Energy transfer and entropy

- [Cool It](#) (Grades 3–5)—**McREL**

- [Ice Energy](#) (Elementary)—Association for the Promotion and Advancement of Science Education; Vancouver, Canada
- [Solar Energy Experiment](#) (Grades 3–8)—Beatrice Ortiz; Ann Parish Elementary; New Mexico
- [Fifty Years From Trinity](#)—Seattle Times Company, Washington
- [Alexander Graham Bell's Path to the Telephone](#)—Michael E. Gorman

### Forces and motion

- [Force and Motion](#) (Grades 3–5)—**McREL**
- [Forces and Motion Index](#) (Multiple lessons, multiple grades)—Cislunar Aerospace, Inc.
- [Rockets](#) (Grades K–12)—TeacherLINK; Utah State University, Logan
- [The Science of Hockey](#)—The Exploratorium®; San Francisco, CA\*

### Forms of energy

- [Bob Miller's Light Walk](#)—The Exploratorium®; San Francisco, CA\*
- [The Energy Story](#)—Energy Quest; California Energy Commission\*
- [Solar and Photovoltaic Energy - Historical Background](#)—Energy Information Administration; Washington, D.C.

### Gravity

- [Warped Space Time Model](#) (Grades 9–12)—PBS Online®

### Position and motion

- [Which Object Do I See?](#) (Grades K–2)—**McREL**
- [I'm Inclined to See](#) (Grades 9–12)—Mark Madsen; Tempe High School; Tempe, AZ

### Properties of substances

- [Candy Chromotography](#) (Grades 6–8)—**McREL**
- [Conservation of Matter](#) (Grades 3–5)—**McREL**
- [The Huge World of Tiny Things](#) (Grades 3–5)—**McREL**\*
- [What's the Matter With You?](#) (Grades 3–5)—**McREL**
- [MicroWorlds Lesson Plans](#) (Grades 9–12)—Berkeley Lab's Advanced Light Source; University of California, Berkeley
- [Chemistry Games](#) (Grades 6–8)—Sheppard Software
- [Chemical Elements.com](#)—Yinon Bentor
- [WebElements™](#)—Mark Winter & The University of Sheffield, UK

### Vibrations and waves

- [Jitterbug and Shake, Rattle, and Vibrate](#) (Grades K–2)—**McREL**
- [Sounds like Science-Drums](#) (Grades 3–8)—Association for the Promotion and Advancement of Science Education; Vancouver, Canada
- [Sounds like Science-Guitar](#) (Grades 3–8)—Association for the Promotion and Advancement of Science Education; Vancouver, Canada
- [Bob Miller's Light Walk](#)—The Exploratorium®; San Francisco, CA\*
- [Microworlds: Exploring the Structure of Materials](#)—Berkeley Lab's Advanced Light Source; University of California, Berkeley

## **Earth and Space Science**

### Biogeochemical cycles

- [Chemical Cycles](#) (Grades 9–12)—**McREL**

### Characteristics of the Earth system

- [The Earth Bowl](#) (Grades K–3)—The Franklin Institute Online; Philadelphia, PA
- [Frozen Erosion](#) (Grades K–6)—The Franklin Institute Online; Philadelphia, PA\*

- [The Blue Planet](#) (Grades K–4)—National Center for Space and Science; Capital Heights, MD

## Earth's history

- [Land Mass Formation Demonstration](#) (Grades K–6)—The Franklin Institute Online; Philadelphia, PA
- [Curse of T. rex](#)—PBS Online®
- [Dinosaurs](#)—Smithsonian National Museum of Natural History
- [Geological Time Machine](#)—University of California Museum of Paleontology, Berkeley
- [Paleontology Without Walls](#)—University of California Museum of Paleontology, Berkeley\*
- [UCMP Collection Catalogs](#)—University of California Museum of Paleontology, Berkeley

## Earth's surface features

- [A Geologist's Lifetime Field List](#)—Terry Acomb; University of Cincinnati Geology Department, Ohio
- [National Caves Association](#)—Park City, KY

## Energy in the Earth system

- [What Causes the Wind](#) (Grades 6–8)—**McREL**
- [Haze-SPAN](#)—Concord Consortium; Concord, MA

## Motion of the Earth and Moon

- [Earthly Phenomena: Finding the Answers](#) (Grades 6–8)—**McREL**
- [Movements of the Earth and Moon](#) (Grades 3–5)—**McREL**
- [Star Light, Star Bright](#) (Grades 3–5)—**McREL**
- [Educator's Guide to Moon Phases](#) (Multiple lessons, Grades K–12)—Jet Propulsion Laboratory of the California Institute of Technology; National Aeronautics and Space Administration (NASA)
- [Earth and Moon Viewer](#)—John Walker; Fourmilab Switzerland

## Plate tectonics

- [Clay Crash](#) (Grades K–6)—The Franklin Institute Online; Philadelphia, PA
- [Earth's Interior and Plate Tectonics Theory](#) (Grades 5–6)—Laurie Molnar; University of Pittsburgh at Johnstown
- [Earthquake Information](#)—U.S. Geological Survey; Washington, D.C.

## Rocks, minerals, and soil

- [A Collection of Rocks](#) (Grades K–2)—**McREL**
- [Straight Scoop on Soils, You Dig?](#) (Grades 3–5)—**McREL**

## Seasons, weather, and climate

- [Highs and Lows](#) (Grades 4–6)—Shirley Gaug; Anthony Elementary; Anthony, KS
- [Rain or Shine: Lessons to Explore Meteorology and Weather](#) (Multiple lessons; Elementary, Middle)—Center for Analysis and Prediction of Storms; Norman, OK
- [El Niño Theme Page](#)—Pacific Marine Environmental Laboratory; National Oceanic and Atmospheric Research; Washington, D.C.
- [Long-Range Weather Forecasts](#)—The Old Farmer's Almanac; Yankee Publishing Inc.; Dublin, NH
- [Hurricane: Storm Science](#)—Miami Museum of Science, Florida\*
- [National Snow and Ice Data Center](#)—University of Colorado, Boulder\*
- [Online Meteorology Guide](#)—Department of Atmospheric Sciences; University of Illinois at Urbana-Champaign
- [The Tornado Project](#)—St. Johnsbury, Vermont

## The Solar System

- [Driving Through the Solar System](#) (Grades 6–8)—**McREL**
- [Center for Educational Resources \(CERES\) Project](#) (Multiple lessons, Grades K–12)—National Aeronautics and Space Administration (NASA) & Montana State University-Bozeman
- [Exploring Planets in the Classroom](#) (Multiple lessons, Grades K–12)—the Hawaii Space Grant Consortium

- [Near Earth Asteroid Rendezvous Mission](#) (Multiple lessons, Grades 8–12)—National Aeronautics and Space Administration (NASA)
- [Amazing Space](#)—Space Telescope Science Institute & National Aeronautics and Space Administration (NASA)\*
- [Astronomy Picture of the Day](#)—Robert Nemiroff - Michigan Technological University, Houghton; & Jerry Bonnell - Universities Space Research Association; Columbia, MD\*
- [Comet C/1996 B2 Hyakutake: The Great Comet of 1996](#)—Jet Propulsion Laboratory of the California Institute of Technology; National Aeronautics and Space Administration (NASA)
- [Exploring Space](#)—Space Science Institute; Boulder, CO\*
- [Galileo Project Information](#) • National Space Science Data Center; National Aeronautics and Space Administration (NASA)
- [The Genesis Mission](#)—Jet Propulsion Laboratory of the California Institute of Technology; National Aeronautics and Space Administration (NASA); & McREL\*
- [ICQ Comet Information](#)—Harvard-Smithsonian Center for Astrophysics; Cambridge, MA
- [Live from the Hubble Space Telescope](#)—National Aeronautics and Space Administration (NASA); National Science Foundation - Arlington, VA; & PBS K-12 Learning Services\*
- [Mars Exploration Rover Mission](#)—Jet Propulsion Laboratory of the California Institute of Technology; National Aeronautics and Space Administration (NASA)
- [N-Body Shop](#)—Department of Astronomy at the University of Washington, Seattle\*
- [The NASA Home Page](#)—Washington, D.C.\*
- [The Nine Planets: A Multimedia Tour of the Solar System](#)—Bill Arnett
- [Planetary Science Research Discoveries](#)—Hawaii Institute of Geophysics and Planetology; University of Hawaii at Manoa. \*
- [Sea and Sky](#)—J.D. Knight\*
- [Solar System Live](#)—John Walker; Fourmilab Switzerland
- [Welcome to the Planets™](#)—Jet Propulsion Laboratory of the California Institute of Technology; National Aeronautics and Space Administration (NASA)
- [Windows to the Universe](#)—University Corporation for Atmospheric Research; Boulder, CO\*
- [Que tal in the Current Skies](#)—Bob Riddle; Starwalk, Inc.
- [Planet Quest](#)—National Aeronautics and Space Administration (NASA)\*

### **The Sun and other stars**

- [The Genesis Mission](#)—Jet Propulsion Laboratory of the California Institute of Technology; National Aeronautics and Space Administration (NASA); & McREL\*
- [A Virtual Tour of the Sun](#)—Michiel Berger; Netherlands

### **The Universe**

- [Amazing Space](#)—Space Telescope Science Institute & National Aeronautics and Space Administration (NASA)\*
- [Astronomy Picture of the Day](#)—Robert Nemiroff - Michigan Technological University, Houghton; & Jerry Bonnell - Universities Space Research Association; Columbia, MD\*
- [Live from the Hubble Space Telescope](#)—National Aeronautics and Space Administration (NASA); National Science Foundation - Arlington, VA; & PBS K-12 Learning Services\*
- [N-Body Shop](#)—Department of Astronomy at the University of Washington, Seattle\*
- [The NASA Home Page](#)—Washington, D.C.\*
- [Planetary Science Research Discoveries](#)—Hawaii Institute of Geophysics and Planetology; University of Hawaii at Manoa.\*
- [Planet Quest](#)—National Aeronautics and Space Administration (NASA)\*
- [Windows to the Universe](#)—University Corporation for Atmospheric Research; Boulder, CO\*

### **Water in the Earth system**

- [Layering Water](#) (Grades 6–8)—McREL
- [Wading Through the Water Cycle](#) (Grades 6–8)—McREL
- [MIT Sea Grant](#)—National Sea Grant College Program; Cambridge, MA



- [National Snow and Ice Data Center](#)—University of Colorado, Boulder\*
- [OceanLink](#)—Bamfield Marine Sciences Centre; Bamfield, British Columbia\*

## Scientific Inquiry

### People in science

- [Scientists of the World](#) (Grades 3–5)—**McREL**
- [Albert Einstein: Image and Impact](#)—American Institute for Physics; College Park, MD
- [Einstein Revealed](#)—PBS Online®
- [Women at NASA](#)—National Aeronautics and Space Administration (NASA)

### Science, technology, and society

- [Access Excellence®](#)—National Health Museum; Washington, D.C.
- [International Society for Artificial Life](#)—Portland, OR
- [The Lemelson-MIT Program](#)—Massachusetts Institute of Technology, Cambridge & The Lemelson Foundation - Portland, OR\*
- [Mind and Machine Module](#)—Simon Catterall; Syracuse University, New York\*
- [Steel Rails and Iron Horses: Science and Technology Transform a Continent](#)—Bureau of Land Management; Washington, D.C.\*

### Scientific collaboration and communication

- [Trading and Testing](#) (Grades 3–5)—**McREL**
- [Hands-on Science Centers Worldwide](#)—School of Computer Science; Carnegie Mellon University; Pittsburgh, PA

### Scientific data collection/analysis/interpretation

- [The Huge World of Tiny Things](#) (Grades 3–5)—**McREL**\*

### Scientific explanations

- [Bad Science](#)—Alistair B. Fraser; Pennsylvania State University

### Scientific investigation

- [Balloon Fun](#) (Grades K–12)—Jeann Harder, Lynch Elementary; Oregon
- [Science Activities and Lessons](#) (Multiple lessons, Grades 3–7)—Dr. Scott Mandel; Teachers Helping Teachers
- [Scanning Electron Microscope](#)—Museum of Science; Boston, MA

### Scientific knowledge

- [Exploring Leonardo](#)—Museum of Science; Boston, MA
- [The Lemelson-MIT Program](#)—Massachusetts Institute of Technology, Cambridge & The Lemelson Foundation - Portland, OR\*

## Technology

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### General technology resources

- [Lesson Plans and Reproducibles](#) - Scholastic, Inc.
- [Thirteen Ed Online](#) - WNET; New York, NY
- [ACTDEN](#)—The Digital Education Network & ACT360° Media
- [Computer History Museum](#)—Mountain View, CA
- [The Educational Technology Site: ICT in Education](#)

### Construction technology

- [Reach for the Sky](#) - Thirteen Edonline; WNET; New York, NY

## Design process

- [Building Bridges](#) - Thirteen Edonline; WNET; New York, NY
- [Fluid Power Systems](#) - Thirteen Edonline; WNET; New York, NY
- [Solar Energy: Become a Sun Chef!](#) - Thirteen Edonline; WNET; New York, NY

## Energy technology

- [Battery Life: A Science Experiment](#) - Reach Out!; University of Michigan, Ann Arbor

## Internet

- [Cyber English®: An Internet Project](#) - Ted Nellen
- [The Great Satellite Search!](#) - The Exploratorium®; San Francisco, CA

## Spreadsheets/databases

- [Holiday Shopper](#) - Stephanie Hurley
- [Primary Path](#) - David Dee; Kentfield, CA\*
- [Spreadsheets for Dinner](#) - Laurie Myers
- [Spreadsheet Formulas](#) - DPI Integration Strategies

## System components

- [Our Favorite Toys](#) - Thirteen Edonline; WNET; New York, NY

## Technology in society

- [The Future is Now](#) • **McREL**
- [Thank You Mr. Edison](#) - The Learning Page; The Library of Congress; Washington, D.C.\*

## Typing

- [Keys on a Keyboard](#) - Jeanie Smith
- [Keys to Computing the Alphabet](#) - Jessie Smith
- [Primary Path](#) - David Dee; Kentfield, CA\*
- [Spell Check - What a Tool!](#) - Mary Rizzo