LC Science Tracer Bullet

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SCIENCE FAIR PROJECTS

Compiled by Joyce Howland

TB 07-6 **September 2007**

SCOPE: Selected sources provide guidance to students, parents, and teachers throughout the process of planning, developing, implementing and competing in science fair activities. Sources range in suitability from elementary to high school levels. This guide updates *LC Science Tracer Bullet* 01-4. More specialized titles are listed in *Space Science Projects* (TB 06-3), *Environmental Science Projects* (TB 97-6), and *Science Projects in Biology* (TB 93-6). Not intended to be a comprehensive bibliography, this guide is designed--as the name of the series implies--to put the reader "on target."

INTRODUCTIONS TO THE TOPIC

Barron, John. *The parent's guide to science fairs*. Los Angeles, Lowell House, c1999. 218 p. Bibliography: p. 205-208. Q182.3.B37 1999 <SciRR>

Bochinski, Julianne Blair. *The complete workbook for science fair projects.* Hoboken, NJ, Wiley, c2005. 130 p. Q164.B62 2005 <SciRR>

Vazquez, Laura, David M. France, and Kim M. Perkins. *Not just another science fair: a handbook and more for science fair organizers*. Glenview, IL, Good Year Books, c1994. 200 p. Q182.3.V385 1994 <SciRR>
"Grades K-8."

SUBJECT HEADINGS used by the Library of Congress, under which books on science fair projects can be located in most card, book, and online catalogs, include the following:

Highly Relevant

SCIENCE–EXHIBITIONS

SCIENCE--EXPERIMENTS
See also subdivision "Experiments" under subject headings of particular interest, such as "Air," "Astronomy," "Biology," "Botany," "Geology," "Oceanography," "Optics," "Space Sciences"
SCIENCE PROJECTS
See also project subcategories such as "Astronomy Projects" and "Physics Projects"

Relevant

SCIENCE--METHODOLOGY
SCIENCE--STUDY AND TEACHING
See also subdivisions "Study and Teaching (Secondary)," "Problems, Exercises, Etc.," and "Amateurs' Manuals" under subject headings of interest, such as "Astronomy," "Astrophysics," "Electronics," "Physics"

More General

RESEARCH--METHODOLOGY

BASIC TEXTS

Dickinson, Mike. *Science project helper.* San Antonio, TX, Wings Press, 2006. 102 p.
Bibliography: p. 101. Q182.3.D53 2006
Presents approaches to selection, performance and presentations of science projects.

Gardner, Robert. *Science fair projects--planning, presenting, succeeding.* Springfield, NJ, Enslow Publishers, c1999. 104 p. Q182.3.G39 1999
Bibliography: p. 101-102.
Provides information on choosing and planning a science fair project, carrying it out, recording your findings, writing a report, and exhibiting the project.

Henderson, Joyce, and Heather Tomasello. *Strategies for winning science fair projects.* New York, J. Wiley, c2002. 115 p. Q182.3.H46 2002
Bibliography: p. 103.

Levaren, Maxine. *Science fair projects for dummies.* New York, Wiley, c2003. 358 p.
Q182.3.L35 2003

Wee, Patricia Hachten. *Managing successful science fair projects: a step-by-step approach.* Portland, ME, J. W. Walch, c1996. 73 p. Q182.3.W438 1996 <SciRR>
Includes bibliographical references.

ADDITIONAL TITLES

Experiments--General

Adams, Richard C., and Robert Gardner. *More ideas for science projects.* Rev. ed. New York, Franklin Watts, c1998. 160 p. Q182.3.A39 1998
Bibliography: p. 147.
Presents ideas for science projects in all disciplines, including engineering, and offers suggestions for data collection and analysis using computer software programs.

Bazler, Judith. *More science projects for all students.* New York, Facts on File, c2002. 1 v. (various pagings) Q182.3.B39 2002 <SciRR>
Includes bibliographical references.

Bochinski, Julianne Blair. *The complete handbook of science fair projects.* Newly rev. and updated. Hoboken, NJ, J. Wiley, c2004. 228 p. Q182.3.B63 2004
Discusses various aspects of science fair projects including advice on choosing a topic, doing research, developing experiments, organizing data results, and presenting a project to the judges.

Bochinski, Julianne Blair. *More award-winning science fair projects.* Hoboken, NJ, J. Wiley, c2004. 228 p. Q164.B63 2004
Presents 35 award-winning science fair projects, a section on how to do a science fair project, updates science fair rules and science supply resources, as well as new material on useful web sites.

Bonnet, Robert L., and Dan Keen. *Gigantic book of winning science fair projects.* New York, Main Street, c2005. 368 p. Q182.3.B6735 2005

Brisk, Marion A. *1001 ideas for science projects.* 3rd ed. New York, Macmillan, c1999. 250 p. Q182.3.B75 1999 <SciRR>
Includes bibliographical references.

Brynie, Faith Hickman. *CliffsNotes parent's crash course: elementary school science fair projects.* Hoboken, NJ, Wiley, c2005. 256 p. Q182.3.B789 2005

Experiment central: understanding scientific principles through projects. Edited by John T. Tanacredi and John Loret. Detroit, U-X-L, c2000-c2004. 6 v. (773 p.) Q164.E96 2000
Vols. 5-6 by M. Rae Nelson and Allison McNeill, project editor.
Includes bibliographical references.
Demonstrates scientific concepts by means of experiments, including step-by-step instructions, lists of materials, troubleshooter's guide, and interpretation and explanation of the results.

Junior science experiments on file. New ed. Edited by Aviva Ebner. New York, Facts on File, c2004. 1 v. (various pagings) Q164.J96 2004 <SciRR>
Includes bibliographical references.

McFarren, Kathleen, and Mike Graf. *Science fair projects and activities: creative ideas using easy-to-find materials.* Santa Barbara, CA, Learning Works, 2005. 144 p.
"Projects meet the national science education standards." Q164.M2757 2005

Scientific American great science fair projects. Scientific American and Marc Alan Rosner. New York, Wiley, c2000. 124 p. Q182.3.S36 2000
Bibliography: p. 121.

Vecchione, Glen. *Blue ribbon science projects.* New York, Sterling Pub. Co., c2005. 224 p. Q182.3.V437 2005

Walker, Pam, and Elaine Wood. *Science experiments on file*. New York, Facts on File, c2005. 1 v. (various pagings) Q182.3.S32 2005

Experiments–Historical

Filson, Brent. *Famous experiments and how to repeat them.* New York, J. Messner, c1986. 71 p. Q164.F54 1986
Bibliography: p. 65-67.
Examines the experiments of Archimedes, Galileo, Newton, Fleming, and others, whose scientific efforts gave new ideas to mankind. Includes instructions for the reader to perform the same experiments.

Harré, Rom. *Great scientific experiments: 20 experiments that changed our view of the world.* Oxford, Eng., Phaidon, 1981. 222 p. Q182.3.H37 1981
Bibliography: p. 221-222.

Historical science experiments on file: experiments, demonstrations, and projects for the school and home. New York, Facts on File, 1993. 1 v. (various pagings)
Q182.3.H58 1993 <SciRR>

Levine, Shar, and Leslie Johnstone. *Science around the world: travel through time and space with fun experiments and projects*. New York, J. Wiley, c1996. 84 p. Q125.L45 1996
Includes bibliographical references.
Fun and fact-filled book of experiments and activities highlighting scientific discoveries from throughout history that shaped the way we live.

VanCleave, Janice Pratt. *Janice VanCleave's science through the ages.* Hoboken, NJ, J. Wiley, c2002. 122 p. QD126.4.V36 2002
Surveys the development of science and technology through the ages, discussing astronomy, biology, chemistry, earth sciences, physics, and more.

Wood, Robert W. *Who? Famous experiments for the young scientist.* Philadelphia, Chelsea House, 1997. 127 p. Q164.W69 1997

Experiments--Specialized

Astronomy

Gardner, Robert. *Far-out science projects about Earth's sun and moon.* Berkeley Heights, NJ, Enslow Elementary/Enslow Publishers, c2008. 48 p. QB521.5.G368 2008
Bibliography: p. 47.

VanCleave, Janice Pratt. *Janice VanCleave's A+ projects in astronomy: winning experiments for science fairs and extra credit.* New York, Wiley, c2002. 216 p. QB46.V34 2002

Biology

Biology experiments on file. New York, Facts on File, c2003. 1 v. (various pagings) QH316.5.B5 2003

Bottone, Frank G. *The science of life: projects and principles for beginning biologists.* Chicago, Chicago Review Press, c2001. 126 p. QH316.5.B68 2001
Bibliography: p. 121-122.

Botany

Bleifeld, Maurice. *Botany projects for young scientists.* New York, F. Watts, c1992. 144 p.
Bibliography: p. 137-139. QK52.6.B54 1992
A collection of activities and experiments involving plants, exploring such areas as photosynthesis, plant structures, and growth.

Hershey, David R. *Plant biology science projects.* New York, J. Wiley, c1995. 165 p.
Includes bibliographical references. QK52.6.H47 1995

Chemistry

Chemistry experiments on file. New York, Facts on File, c2001. 1 v. (various pagings) QD43.C485 2001 <SciRR>

Gardner, Robert. *Chemistry science fair projects using acids, bases, metals, salts, and inorganic stuff.* Berkeley Heights, NJ, Enslow Publishers, c2004. 128 p. QD38.G35 2004
Includes bibliographical references.

Ecology and Environment

Bonnet, Robert L., and G. Daniel Keen. *Environmental science: 49 science fair projects.* Blue Ridge Summit, PA, Tab Books, c1990. 124 p. QH541.24.B66 1990
Suggests forty-nine projects in environmental science, suitable for the classroom or a science fair.

Walker, Pam, and Elaine Wood. *Ecosystem science fair projects: using worms, leaves, crickets, and other stuff.* Berkeley Heights, NJ, Enslow Publishers, c2005. 128 p.
Bibliography: p. 124. QH541.24.W35 2005
Contains science projects that concern the relationship between living things and their environment.

Engineering

Adams, Richard C., and Peter H. Goodwin. *Engineering projects for young scientists.* Rev. ed. New York, F. Watts, c2001. 127 p. TA149.A33 2001
Bibliography: p. 118-120.
Presents practical problems and science fair projects related to engineering and physics, covering such subjects as force, friction, motion, sound waves, light waves, and mechanics.

Wood, Robert W. *Science for kids: 39 easy engineering experiments.* Blue Ridge Summit, PA, Tab Books, c1992. 132 p. TA149.W66 1991
Introduces basic ways we use engineering through such projects as making a wind tunnel, building a truss, and testing the action of friction under various conditions.

Health and Medicine

Gardner, Robert, and Barbara Gardner Conklin. *Health science projects about sports performance.* Berkeley Heights, NJ, Enslow Publishers, c2002. 112 p. RC1235.G35 2002
Bibliography: 109 p.

O'Neil, Karen E. *Health and medicine projects for young scientists.* New York, F. Watts, c1993. 127 p. R852.O54 1993
Includes bibliographical references.
Provides instructions for experiments demonstrating medical principles and explains how similar investigations have helped find cures or treatments for serious illnesses.

Nature

Rainis, Kenneth G. *Nature projects for young scientist.* Rev. Ed. New York, F. Watts, c2002. 192 p. QH55.R35 2002
Bibliography: 183-188.
Rev. ed. of *Nature*. 1989

Tucker, Priscilla. *Basic nature projects: 101 fun explorations.* Mechanicsburg, PA, Stackpole Books, c1995. 246 p. QH55.T83 1995

Oceanography

Cobb, Allan B. *Super science projects about oceans.* New York, Rosen Central, 2000. 48 p.
Bibliography: p. 46. GC21.5.C63 2000
Presents science projects that demonstrate facts about oceans, including the water cycle, buoyancy, density, pressure, depth, waves, and tides.

VanCleave, Janice Pratt. *Janice VanCleave's oceans for every kid: easy activities that make learning science fun.* New York, Wiley, c1996. 245 p. GC21.5.V36 1996
Bibliography: p. 239-240.
Includes information on techniques and technologies of oceanography, the topology of the ocean floor, movement of the sea, properties of sea water, and life in the sea.

Physics

Physics experiments on file. New York, Facts on File, c2003. 1 v. (various pagings)
Includes bibliographical references. QC33.P468 2003 <SciRR>

VanCleave, Janice Pratt. *Janice VanCleave's A+ projects in physics: winning experiments for science fairs and extra credit.* Hoboken, NJ, Wiley, c2003. 231 p. QC26.V36 2003
Includes bibliographical references.
Presents thirty sample projects that examine various principles of physics and are suitable for science fairs.

Zoology

Cain, Nancy Woodard. *Animal behavior science projects.* New York, Wiley, c1995. 162 p.
Bibliography: p. 153-156. QL751.5.C295 1995

Dashefsky, H. Steve. *Zoology: high school science fair experiments.* New York, TAB Books, c1995. 145 p. QL52.6.D375 1995
Bibliography: p. 139-141.

CLASSROOM EXPERIMENTS AND ACTIVITIES

Callard-Szulgit, Rosemary, and Greg Karl Szulgit. *Mind-bending math and science activities for gifted students (grades K-12).* Lanham, MD, Rowman & Littlefield Education, 2006. 166 p.
Bibliography: 161-163. QA16.C35 2006

Carin, Arthur A., Joel E. Bass, and Terry L. Contant. *Activities for Teaching science as inquiry.* 6th ed. Upper Saddle River, NJ, Pearson/Merrill/Prentice Hall, c2005. LB1585.C267 2005
Includes bibliographical references.

Chiappetta, Eugene L., and Thomas R. Koballa. *Science instruction in the middle and secondary schools.* 6th ed. Upper Saddle River, NJ, Pearson Merrill Prentice Hall, c2006. 312 p.
Includes bibliographical references. Q183.3.A1C48 2006

Fiore, Julie, and Gwenn Lei. *15 standards-based science activities kids will love!* New York, Scholastic Inc., 2006. 64 p. LB1585.F545 2006

Fleming, Michael F. *Science teacher's instant labs kit.* West Nyack, NY, Center for Applied Research in Education, c1992. 291 p. Q182.5.F57 1992

Lorbeer, George C. *Science activities for elementary students.* 11th ed. Boston, McGraw-Hill, c2000. 415 p. LB1585.3.L67 2000
Rev. ed. of *Science activities for children.* 10th ed. 1996.

Lorbeer, George C. *Science activities for middle school students.* 2nd ed. Boston, McGraw-Hill, c2000. 428 p. Q181.L84 2000

Marks, Diana F. *Glues, brews, and goos: recipes and formulas for almost any classroom project.* Englewood, CO, Teacher Ideas Press, 1996-<2003>. v. <1-2>.
Includes bibliographical references. LB1585.F545 2006

Sokolis, Gary E., and Susan S. Thee. *Science probe I.* Cincinnati, Thomson Science, c1997. 553 p. Q182.3.S62 1997
"This product is adapted from Nelson Canada's *Science probe 9.*"
A collection of experiments concentrating on earth, space, physics, chemistry, and life science.

Sokolis, Gary E., and Susan S. Thee. *Science probe II.* Cincinnati, Thomson Science, c1997. 543 p. Q182.3.S63 1997
"This product is adapted from Nelson Canada's *Science probe 10.*"
A collection of experiments concentrating on earth, space, physics, chemistry, and life science.

VanCleave, Janice Pratt. *Janice VanCleave's teaching the fun of science.* New York, John Wiley, 2001. 204 p. Q181.V295 2001

Victor, Edward, and Richard D. Kellough. *Science K-8: an integrated approach.* 10th ed. Upper Saddle River, NJ, Merrill, c2004. 564 p. LB1585.V46 2004
Includes bibliographical references.
Rev. ed. of *Science for the elementary and middle school.* 9th ed. c2000.

Yeany, Bruce. *If you build it, they will learn: 17 devices for demonstrating physical science.* Arlington, VA, NSTA Press, c2006. 285 p. LB1585.Y43 2006
Bibliography: 284-285.

BIBLIOGRAPHIES AND PROJECT INDEXES

Educators guide to free science materials. 1st ed.- 1960- Compiled and edited by Mary H. Saterstrom. Randolph, WI, Educators Progress Service. Annual.
Latest edition in Science Reading Room. Q181.A1E3 <SciRR Desk>

Perry, Phyllis Jean. *Science companion for library, school, and home.* 2nd ed. Lanham, MD, Scarecrow Press, 2002. 228 p. Q181.P355 2002 <SciRR>
Includes bibliographical references.
Rev. ed. of *A teacher's science companion.* 1994.

Pilger, Mary Anne. *Science experiments index for young people.* 4th ed. Westport, CT, Libraries Unlimited, c2005. 184 p. Q182.3.P55 2005 <SciRR>
Includes bibliographical references.

Science experiments & projects index. Edited by Lisa Holonitch. Fort Atkinson, WI, Highsmith, c1994. 324 p. Z7401.S374 1994 <SciRR>
Bibliography: p. 311-324.

Science fair project index, 1960-1972. Compiled by the staff of the Science and Technology Division of the Akron Summit County Public Library. Edited by Janet Y. Stoffer. Metuchen, NJ, Scarecrow Press, 1975. 728 p. Q182.3.S34 1975 <SciRR>
Bibliography: p. 713-728.

Science fair project index, 1973-1980. Edited by Science and Technology Division, Akron-Summit County Public Library. Metuchen, NJ, Scarecrow Press, 1983. 723 p.
Bibliography: p. 709-723. Q182.3.S34 1975 Suppl. <SciRR>
Continuation of: *Science fair project index, 1960-1972.*

Science fair project index, 1981-1984. Edited by Cynthia Bishop, Deborah Crowe, Science and Technology Division, Akron-Summit County Public Library. Metuchen, NJ, Scarecrow Press, 1986. 686 p. Q182.3.S34 1975 Suppl. 2 <SciRR>
Bibliography: p. 680-686.
Continuation of: *Science fair project index, 1973-1980.*

Science fair project index, 1985-1989. Edited by Cynthia Bishop, Katherine Ertle, Karen Zeleznik. Prepared by the Science and Technology staff of the Akron-Summit County Public Library. Metuchen, NJ, Scarecrow Press, 1992. 555 p.
Bibliography: p. 548-555. Q182.3.S34 1975 Suppl. 3 <SciRR>
"Third supplement to the *Science fair project index*, *1960-1972."*

Science fair project index. 1990- URL: http://www.ascpl.lib.oh.us/scifair
The Science and Technology Division of the Akron-Summit County Public Library prepares the *Science fair project index* as part of the Library's ongoing commitment to contribute to the literature of the profession. The present electronic database includes bibliographic data for materials published from 1990 to date.

HANDBOOKS, MANUALS, AND ENCYCLOPEDIAS

Briscoe, Mary Helen. *Preparing scientific illustrations: a guide to better posters, presentations, and publications.* 2nd ed. New York, Springer, c1996. 204 p. Q222.B75 1996 <SciRR>
Bibliography: p. 187-188.

Collins, Kevin, and Betty Collins. *Experimenting with science photography.* New York, F. Watts, c1994. 144 p. TR692.5.C65 1994
Bibliography: p. 139-141.

Gardner, Robert, and Eric Kemer. *Making and using scientific models.* New York, F. Watts, c1993. 160 p. Q182.3.G36 1993
Bibliography: p. 155-156.
Discusses the use of scientific models to represent concepts in earth science, astronomy, biology, physics, and chemistry.

Glass, Susan. *Analyze this!: understanding the scientific method.* Chicago, Heinemann Library, c2007. 48 p. Q175.2.G57 2007
Bibliography: p. 47.

Glass, Susan. *Prove it!: the scientific method in action.* Chicago, Heinemann Library, c2007. 48 p. Q175.2.G576 2007
Includes bibliographical references.

Glass, Susan. *Watch out!: science tools and safety.* Chicago, Heinemann Library, c2007. 48 p.
Bibliography: p. 47. Q185.3.G57 2006

Green, Joey. *The mad scientist handbook: how to make your own rock candy, antigravity machine, edible glass, rubber eggs, fake blood, green slime, and much, much more.* New York, Berkley Pub., 2000. 125 p. Q164.G73 2000
Bibliography: p. 121-122.

Jerome, Kate Boehm. *Thinking it through.* Washington, National Geographic Society, c2004. 24 p. Q175.2.J47 2004

Bibliography: p. 22.

Discusses how scientists use reasoning and logical thinking to do their work. Explains how Venn diagrams provide a logical way to classify data. Teaches how to recognize valid conclusions by examining if-then statements. Explains how to interpret graphs to explain relationships between different living things, and how changes in environments can be influenced by humans.

Kirkup, Les. *Experimental methods: an introduction to the analysis and presentation of data.* Brisbane, Aus., New York, J. Wiley, 1994. 216 p. Q182.3.K57 1994

Includes bibliographical references.

Krieger, Melanie Jacobs. *Using statistics in science projects, Internet enhanced.* Berkeley Heights, NJ, Enslow Publishers, c2002. 144 p. QA276.13.K75 2002

Includes bibliographical references.

Rev. ed. of *Means and probabilities.* c1996.

Explains how to use statistics to interpret the data compiled in a science project and suggests where to find additional information on the Internet.

Moorman, Thomas. *How to make your science project scientific.* Rev. ed. New York, Wiley, c2002. 104 p. Q175.2.M66 2002

Bibliography: p. 95-96.

Discusses the basic principles of the scientific method and the various types of experiments to which it may be applied.

Newton, David E. *Making and using scientific equipment.* New York, F. Watts, c1993. 157 p. Q185.N55 1993

Bibliography: p. 150-152.

Souter, Gerry, Janet Souter, and Allison Souter. *Creating E-reports and online presentations.* Berkeley Heights, NJ, Enslow, CA, c2003. 64 p. TK5105.888.S67 2003

Stangl, Jean. *Science toolbox* . 2nd ed. Blue Ridge Summit, PA, TAB Books, c1994. 138 p. Q164.S75 1994

Wallace, Diane A., and Philip L. Hershey. *How to master science labs.* New York, F. Watts, 1987. 127 p. Q164.W24 1987

Includes bibliographical references.

Explains methods and techniques used in lab experiments, covering such topics as heating, measuring, and collecting substances, doing dissections, using lab equipment, and gathering data. Includes instructions for actual experiments.

COMPETITIONS

Grand, Gail L. *Student science opportunities: your guide to over 300 exciting national programs, competitions, internships, and scholarships*. New York, Wiley, c1994. 292 p. Q183.3.A1G73 1994 <SciRR>

Iritz, Maxine Haren. *Winning the grand award: successful strategies for International Science & Engineering Fair competition.* Blue Ridge Summit, PA, TAB Books, c1992. 135 p. Q182.3.I753 1992

Karnes, Frances A., and Tracey L. Riley. *Competitions for talented kids*. Waco, TX, Prufrock Press, c2005. 245 p. LB3068.K37 2005
Bibliography: p. 240-245.

Krieger, Melanie Jacobs. *How to excel in science competitions*. Rev. and updated ed. Berkeley Heights, NJ, Enslow Publishers, c1999. 128 p. Q182.3.K75 1999 <SciRR>
Includes bibliographical references.
A guide for the high school student researching a science project for entry in a competition.

Micklus, C. Samuel, and Samuel W. Micklus. *Competition stimulates creativity*. Edited by Carol Ann Newlin. Glassboro, NJ, Creative Competitions, c1994. 120 p. LB3068.M53 1994

Pendleton, Scott. *The ultimate guide to student contests, grades K-6*. New York, Walker, 1998. 192 p. LB3068.P452 1998 <SciRR>

Pendleton, Scott. *The ultimate guide to student contests, grades 7-12*. New York, Walker and Co., 1997. 384 p. LB3068.P45 1997 <SciRR>
"More than 250 of the best competitions, clubs, programs, ways to get published, and more!"

Tallent-Runnels, Mary K., and Ann C. Candler-Lotven. *Academic competitions for gifted students: a resource book for teachers and parents.* Thousand Oaks, CA, Corwin Press, c1996. 215 p. LB3068.T35 1996
Bibliography: p. 24-26.

BOOK/FILM REVIEWS AND 'BEST BOOK' SOURCES

Best books 2006. *SB&F (Science, books & films),* v. 43, Jan./Feb. 2007: 3-47. Best Books vertical file <SciRR>

Exploring science in the library: resources and activities for young people. Edited by Maria Sosa and Tracy Gath. Chicago, American Library Association, 2000. 236 p.
Includes bibliographical references. Z675.S3E97 2000 <SciRR>

Outstanding science trade books for students K-12 -- 2007. *Science and children*, v. 44, Mar. 2007: 41-48. Best Books vertical file <SciRR>
URL: http://www.nsta.org/ostbc

Science fair resources. *SB&F (Science, books & films),* v. 42, Sept./Oct. 2006: 195-201. Best Books vertical file <SciRR>

ABSTRACTING AND INDEXING SERVICES that index relevant journal articles and other literature are listed below. Some suggested terms are given as aids in searching. The following indexes are available in most public and college libraries.

Current Index to Journals in Education (1969-) Z5813.C8 <MRR Alc> <N&CPRR> and Electronic format
See: Science Activities
Science Experiments
Science Fairs
Science Projects

Education Index (1929-) Z5813.E23 <MRR Alc> <N&CPRR> and Electronic format
See: Science Activities
Science--Exhibits
Science--Experiments
Science--Projects

ERIC - Education Resources Information Center URL: http://www.eric.ed.gov/
See: Science Activities
Science--Exhibits
Science--Experiments
Science--Projects

General Science Index (1978-) Z7401.G46 <N&CPRR> and Electronic format
See: Science Fairs, School
Science--Exhibitions

Readers' Guide to Periodical Literature (1900-) AI3.R48 <BusRR> <MRR Alc> <N&CPRR> and Electronic format
See: Science Activities
Science Experiments
Science Fairs
Science Projects

Vertical File Index (1932/1934-) Z1231.P2V48 <N&CPRR>
See: Science--Study and Teaching
Subject of interest, e.g., Astronomy, Chemistry, etc.

Students may also need to use subject-oriented abstracting and indexing services for information on the subject of their projects. Sample titles are listed below. These may be available only in large or specialized libraries. Many of the titles may now be available in electronic format. **Consult a reference librarian for the location and format of abstracting and indexing services.**

Applied Science & Technology Index (1913-) Z7913.I7 <SciRR A&I> and Electronic format

Astronomy and Astrophysics Abstracts (1969)
Z5153.A862 <SciRR A&I> and Electronic format

Bibliography and Index of Geology (1933-) Z6031.G4 and Electronic format

Biological Abstracts (1926-) QH301.B37 <SciRR A&I> and Electronic format

Biological & Agricultural Index (1916-) Z5073.A46 <SciRR A&I> and Electronic format

Chemical Abstracts (1907-) QD1.A51 <SciRR A&I>

Electrical & Electronics Abstracts (1898-) Z5833.E37 <SciRR A&I> and Electronic format

Engineering Index (1884-) Z5851.E62 <SciRR A&I> and Electronic format

Food Science and Technology Abstracts (1969-) TP368.F678 <SciRR A&I>

International Aerospace Abstracts (1961-) TL500.I57 <SciRR A&I>

Mathematical Reviews (1940-) QA1.M76 <SciRR A&I>

Metals Abstracts (1968-) TN1.M5153 <SciRR A&I>

Meteorological & Geoastrophysical Abstracts (1950-) QC851.A62 <SciRR A&I>

Physics Abstracts (1903-) QC1.P46 <SciRR A&I> and Electronic format

Pollution Abstracts (1970-) TD172.P65

Psychological Abstracts (1927-) BF1.P65 and Electronic format

Zoological Record (1864-) Z7991.Z87 <SciRR A&I> and Electronic format

JOURNALS that often contain articles relevant to science fair projects are:

The American Biology Teacher QH1.A275
Journal of Chemical Education QD1.J93
Journal of College Science Teaching Q183.U6J68
Journal of Geoscience Education QE40.J6
Physics Teacher QC30.P48
Popular Mechanics T1.P77
Science Activities Q181.A1S29
Science and Children LB1585.S34
Science News Q1.S76
Science Scope Not in LC collection
Science Teacher Q181.S38
Scientific American T1.S5
Sky & Telescope QB1.S536

REPRESENTATIVE JOURNAL ARTICLES

Carrier, Sarah J. The road to stress-free science fairs. *Science and children,* v. 44, Sept. 2006: 36-39. LB1585.S34

DeClue, Mary Ellen, and others. Stimulate high school science fair participation by connecting with a nearby college. *Journal of chemical education,* v. 77, May 2000: 608-609. QD1.J93

Harder, B. Top prospects for tomorrow's labs. *Science news,* v. 171, Feb. 3, 2007: 70. Q1.S76

Kelly, Katy. Why science fairs turn parents into Dr. Frankenstein. *U. S. news and world report,* v. 128*,* Feb. 7, 2000: 54-56. JK1.U65

Newberry, Michael G., and Joan M. Baltezore. Poster presentations: conceptualizing, constructing & critiquing. *The American biology teacher,* v. 68, Nov./Dec. 2006: 550-554. QH1.A275

Sosa, Maria, and Barbara Walthall. Science fairs: ready, set, go! *Science books & films,* v. 35, Sept./Oct. 1999: 195-199. Z7403.S33 <SciRR A&I>

Wilson, Janell D., and others. Science fairs: promoting positive attitudes towards science from student participation. *College student journal,* v. 38, Mar. 2004: 112-115. LA229.C64

SELECTED MATERIALS available in the Science Reading Room pamphlet boxes include:

Abstracts from the International Science and Engineering Fair, Phoenix, AZ, May 8-14, 2005. Washington, Science Service, c2005. 588 p.

Fleischer, Stuart A., Randall Spaid, and Edwin P. Christmann. An e-learning science fair. *Science scope,* v. 29, Jan. 2006: 10-13.

Gonzalez-Espada, Wilson. Using simple statistics to ensure science-fair success. *Science scope,* v. 30, Apr./May 2007: 54-56.

Science fair fun. United States Environmental Protection Agency, EPA530-K-00-008.
URL: http://www.epa.gov/osw/kids/pdfs/sciencefair.pdf

Science fairs and projects, 7-12: a collection of articles reprinted from Science and children, Science scope, the Science teacher. Washington, National Science Teachers Association, c1988. 70 p.

Science fairs plus: reinventing an old favorite, K-8. Arlington, VA, NSTA Press, National Science Teachers Association, c2003. 98 p.

Sumrall, William, and Don Schillinger. Non-traditional characteristics of a successful science fair project. *Science scope,* v. 27, Mar. 2004: 20-24.

SELECTED COMPETITIONS

Canon Envirothon
P.O. Box 23005
Jackson, MS 39225
High school environmental education competition
URL: http://www.envirothon.org/

Christopher Columbus Awards
105 Terry Drive, Suite 120
Newtown, PA 18940-3425
URL: http://www.christophercolumbusawards.com

Discovery Channel Young Scientist Challenge
Science contest for 5th and 6th grade students
URL: http://school.discoveryeducation.com/sciencefaircentral/dysc/

Intel International Science and Engineering Fair (ISEF)
Science Service
1719 N Street, NW
Washington, DC 20036
URL: http://www.sciserv.org/isef/

Intel Science Talent Search
Science Service
1719 N Street, NW
Washington, DC 20036
URL: http://www.sciserv.org/sts

International Bridge Building Contest
Illinois Institute of Technology
Department of Biological, Chemical, and Physical Sciences
3101 South Dearborn Street
Chicago, IL 60616
URL: http://www.iit.edu/~hsbridge/database/search.cgi/:/public/index

Junior Science and Humanities Symposium
24 Warren Street
Concord, NH 03301
Telephone: 603-228-4520
URL: http://www.jshs.org

Science Olympiad
2 Trans Am Plaza Drive, Suite 415
Oakbrook Terrace, IL 60181
URL: http://www.soinc.org/

Siemens Westinghouse Science and Technology Competition
Siemens Foundation
1301 Avenue of the Americas
New York, NY 10019
URL: http://www.siemens-foundation.org/

Student Technology Contest in Magnetic Levitation
Brookhaven National Laboratory
Science Education Center
Building 438
P.O. Box 5000
Upton, NY 11973-5000
Telephone: 516-344-7171
URL: http://www.bnl.gov/education/contests/magLev/rules.asp

Toy Challenge
National toy design competition for 5th through 8th grades. Organized by Sally Ride Science.
URL: http://www.toychallenge.com

THE INTERNET offers a growing number of sites useful for finding information on science fairs and science experiments. The following books contain listings and directories for finding information related to science fair projects on the Internet or using Internet resources in the classroom.

Educators guide to free internet resources. (Elementary/middle school ed.) 1st ed.- 2002/2003- Randolph, WI, Educators Progress Service. LB1044.87.E365 <SciRR Desk>
Latest edition in Science Reading Room.

Educators guide to free internet resources. (Secondary ed.) 20th ed.- 2002/2003- Randolph, WI, Educators Progress Service. LB1044.87.E367 <SciRR Computer Shelf>
Latest edition in Science Reading Room.

Fredericks, Anthony D. *Science discoveries on the Net: an integrated approach*. Englewood, CO, Libraries Unlimited, c2000. 313 p. Q182.7.F73 2000 <SciRR>
Includes bibliographical references.

Gralla, Preston. *Online activities for kids: projects for school, extra credit, or just plain fun!* New York, J. Wiley, c2002. 241 p. QA76.55.G72 2002
Step-by-step instructions for doing more than eighty Internet search activities in such areas as science, math, social studies, language arts, geography, and the arts.

Johnson, Carolyn. *Using Internet primary sources to teach critical thinking skills in the sciences.* Westport, CT, Libraries Unlimited, 2003. 339 p. Q182.7.J65 2003 <SciRR>
Includes bibliographical references.

Keane, Jacqueline P. *Internet-based student research: creating to learn with a step-by-step approach, grades 5-12*. Worthington, OH, Linworth Pub., c2006. 178 p.
Includes bibliographical references. LB1044.87.K42 2006

Rosner, Marc Alan. *Science fair success using the Internet, revised and updated.* Berkeley Heights, NJ, Enslow Publishers, c2006. 112 p. Q182.3.R68 2006 <SciRR>
Bibliography: p. 110.

Wetzel, David R. *How to weave the Web into K-8 science.* Arlington, VA, NSTA Press, c2005. 42 p. LB1585.3.W48 2004
Bibliography: p. 32.

SELECTED INTERNET RESOURCES

Most of the organizations listed in the following section provide links to related sites from their web sites. In addition, it is also possible to use a search engine, such as Alta Vista, Google, or Northern Light, to locate additional sites.

Amateur Scientist
URL: http://www.amasci.com/amateur/sciamdx.html
Complete index (1952-present) to all projects listed in "The Amateur Scientist" column printed in the Scientific American. Articles must be obtained from Scientific American or libraries.

Internet Public Library
URL: http://www.ipl.org/div/kidspace/projectguide/
Extensive guide providing links to sites covering all aspects of science fairs.

Kids.gov
URL: http://www.kids.gov/k_science.htm
Links to Federal science and math sites for kids.

National Student Research Center
URL: http://youth.net/nsrc/nsrc.html
Links to sites containing information, examples and resources for science fairs, classroom activities and for publication.

Science Buddies
URL: http://www.sciencebuddies.org/
Non-profit organization that provides free online resources for science education.

Science News for Kids
URL: http://www.sciencenewsforkids.org/
Includes a SciFairZone with tips, project topics, news, articles, Ask an expert and Lab Zone.

Science Fair Central
URL: http://school.discovery.com/sciencefaircentral/
Guide to Science Fair projects along with Teacher's Resource Guide to organizing a Science Fair.

WWW Virtual Library: Science Fairs
URL: http://physics.usc.edu/ScienceFairs/
Listings of local, regional, state, national and international science fair sites available through the World Wide Web. A section on virtual science fairs is also included.

ADDITIONAL SOURCES OF INFORMATION

American Association for the Advancement of Science (AAAS)
1200 New York Avenue, NW
Washington, DC 20005-3920
Telephone: 202-326-6400
URL: http://www.aaas.org

American Association of Physics Teachers
One Physics Ellipse
College Park, MD 20740-3845
Telephone: 301-209-0845
URL: http://www.aapt.org

American Chemical Society
1155 16th Street, NW
Washington, DC 20036
Telephone: 800-227-5558
URL: http://www.acs.org/

American Geological Institute
4220 King Street
Alexandria, VA 22302
Telephone: 703-379-2480
URL: http://www.agiweb.org/

Federal Resources for Educational Excellence
URL: http://www.free.ed.gov/index.cfm
Maintained by the U.S. Department of Education, includes approximately 2,000 federally supported teaching and learning resources from numerous federal agencies.

National Science Digital Library
URL: http://www.nsdl.org/
Supported by the National Science Foundation, provides online resources for science, technology, engineering, and mathematics education and research.

National Science Teachers Association
1840 Wilson Boulevard
Arlington, VA 22201-3000
Telephone: 703-243-7100
URL: http://www.nsta.org

Science Education for Students with Disabilities
236 Grand Street
Morgantown, WV 26505-7509
Telephone: 304-293-5201
URL: http://www.as.wvu.edu/~scidis/

Science.gov (USA.gov for Science)
URL: http://www.science.gov/
Gateway to over 1,800 scientific Websites.

Location Codes for Items in the Library of Congress Reference Collections
<BusRR> Business Reference Services
<MRR> Main Reading Room
<N&CPRR> Newspaper and Current Periodicals Reading Room
<SciRR> Science Reading Room