

Science Fair Project Resources

Science Experiments and Project Guides (find more in 507s)

- J 500 WYA Wyatt, Valerie. *The Science Book For Girls and Other Intelligent Beings*. 1997. Various branches of science experiments are presented, as well as featuring famous women scientists for inspiration. (Grades 3-5)
- J 507.24 DAA Daab, Marcia. *Science Fair Workshop*. 1990. A "workbook" to guide students through the entire research process. Includes planning worksheets for timelines, creating a hypothesis, conducting an experiment, and how to present results with graphs and charts. (Grades 3-5)
- J 507.8 BEN *The Ben Franklin Book of Easy and Incredible Experiments*. 1995. Learn how to do incredible experiments Ben Franklin's way by using inexpensive, easy-to-find items. (Grades 4-6)
- J 507.8 COB Cobb, Vicki. *See for Yourself : More Than 100 Experiments for Science Fairs and Projects*. 2001. Everyday life inspires these simple experiments. Includes index by challenge level. (Grades 3-6)
- J 507.8 COU Coulter, George. *Science in Nature: (Rourke Science Projects series)*. 1995. Contains six well-defined experiments on such topics as animal tracks, molds, crystals, and soil. See other volumes in this series on art, food, history, music, and sports. (Grades 3-5)
- J 507.8 FRE Fredericks, Anthony. *The Complete Science Fair Handbook: For Teachers and Parents of Students in Grades 4-8*. 1990. Extremely clear steps to create successful science fair projects, including templates for planning, conducting research, and presenting. Projects are outlined by grade level. (Grades 4-8)
- J 507.8 HAD Haduch, Bill. *Science Fair Success Secrets: How to Win Prizes, Have Fun, and Think Like a Scientist*. 2002. Focus is on real science with lots of tongue-in-cheek humor. Contains step-by-step guide, off-beat experiments, and list of actual award-winning science fair projects. (Grades 4-6)
- J 507.8 PAR Parker, Steve. *Shocking, Slimy, Stinky, Shiny Science Experiments*. 1998. Well laid out and colorful, 73 illustrated experiments covering basic concepts from electricity to the properties of ordinary household items. (Grades 3-5)
- J 507.8 SCI Scientific American. *Scientific American Great Science Fair Projects*. 2000. Created by the editors of Scientific American, it includes experiments in astronomy, biology, chemistry, earth science, and physics. Includes a fairly updated list of web-based resources, and each experiment has its own references. (Grades 5-8)
- J 507.8 SCI *Science Fairs: Ideas and Activities*. 1998. Contains chapters on research methods, hints on doing projects, and outlines for topics including space, geology, botany, and machines. (Grades 3-7)

- J 507.8 VAN VanCleave, Janice Pratt. *Janice VanCleave's Guide to More of the Best Science Fair Projects*. 2000.
Includes information on the scientific method, research, and presentations. Contains outlines for approximately 50 experiments in astronomy, biology, geology, and others. (Grades 4-8)
- J 507.8 VEC Vecchione, Glen. *100 Award-winning Science Fair Projects*, 2001.
Contains experiments from basic to complicated. Experiments are clearly outlined by "You will need," "Procedure," "Result," and "Explanation" sections. (Grades 4-10)
- J 507.8 VOT Voth, Danna. *Kidsource: Science Fair Handbook*. 1998.
Thorough overview of putting together a science project, including choosing a topic to presenting your results. (Grades 4-6)
- J 507.8 WIE Wiese, Jim. *Roller Coaster Science: 50 Wet, Wacky, Wild, Dizzy Experiments about Things Kids Like the Best*. 1994.
This book describes the science behind such amusements as roller coasters, swings, bumper cars, curve balls, and other recreational activities. (Grades 4-8)

Astronomy (find more in 520s)

- J 500.2 GAR Gardner, Robert. *Projects in Space Science*. 1988.
Classic experiments using observation, physics, solar energy, model-making, and more. (Grades 4-8)
- J 520.78 HAS Haslam, Andrew. *Space (Make it Work! series)*. 2000.
Principles of astronomy are explained through 19 model-based projects. Simple directions and bold pictures are good for novices. (Grades 3-6)
- J 523.2078 VAN VanCleave, Janice Pratt. *Janice VanCleave's Solar System: Mind-boggling Experiments You Can Turn into Science Fair Projects*. 2000. Twenty experiments involving the solar system take you beyond styrofoam models. (Grades 4-6)

Biology and Life Sciences (find more in 363s & 570s)

- J 363.7392 GUT Gutnik, Martin J. *Experiments that Explore the Greenhouse Effect (Investigate! series)*. 1991.
Introduces the concept of greenhouse gasses and features 11 experiments. See other titles in this series on acid rain, oil spills, and recycling. (Grades 5-8)
- J 363.7394 RYB Rybolt, Thomas R. *Environmental Experiments about Water (Science Experiments for Young People series)*. 1993.
Features 16 water experiments on the properties of water, water cycle, acid rain, pollution, and purification. See other titles in this series on air, land, life, and renewable energies. (Grades 3-5)
- J 574.078 VAN VanCleave, Janice Pratt. *Janice VanCleave's A+ Projects in Biology: Winning Experiments for Science Fairs and Extra Credit*. 1993.
Includes experiments on botany, zoology, and the human body. Helpful appendices on such topics as how to prepare a slide and conduct a random sampling. (Grades 5-8)

Plant Biology (find more in 580s)

- J 580.78 GAR Gardner, Robert. *Science Projects About Plants*. 1999.
Covers seeds, leaves, roots, stems, and the whole plant with 20 experiments noted as appropriate for science fairs.
(Grades 5-8)

Human Biology (find more in the 612s)

- J 612 WIE Wiese, Jim. *Head to Toe Science: Over 40 Eye-Popping, Spine-Tingling, Heart-Pounding Activities that Teach Kids about the Human Body*. 2000.
Experiments on the nervous, digestive, respiratory, circulatory, and reproductive systems as well as chapters on skin, muscles, and bones.
(Grades 4-8)

Chemistry (find more in 540s)

- J 540.78 COU Coulter, George. *Science in Food (Rourke Science Projects series)*. 1995.
Contains well-defined experiments using food to illustrate basic chemistry concepts. See other volumes in this series on art, history, music, nature, and sports.
(Grades 3-4)
- J 540.78 VAN VanCleave, Janice Pratt. *Janice VanCleave's Molecules (Spectacular Science Projects series)*. 1993.
Each project includes a problem, procedures to follow, and result; with explanations and further explorations. Easy-to-find materials and clear directions make chemistry concepts understandable.
(Grades 3-6)

Physics (find more in 530s and 621s)

- J 532.078 GOO Goodstein, Madeline P. *Fish Tank Physics Projects (Science Fair Success series)*. 2002.
Features 33 water-based experiments on topics such as water tension, density, Pascal's Law, and others.
(Grades 5-8)
- 530.078 GOO Goodstein, Madeline P. *Sports Science Projects: the Physics of Balls in Motion (Science Fair Success series)*. 1999.
Contains 40 advanced sports-based science experiments covering force, energy, motion, and even the differences between kinds of sports balls and performance.
(Grades 5-8)
- J 530 BON Bonnet, Robert L. *Science Fair Projects: Physics*. 1999.
Forty-seven straight-forward experiments on such topics as momentum, heat transfer, buoyancy, friction, and others.
(Grades 4-6)
- J 534.078 LEV Levine, Shar. *The Science of Sound and Music*. 2000.
Over 30 experiments featuring sound and music. Includes illustrated instructions and glossary.
(Grades 4-6)

Technology & Engineering (find more in 608s)

- J 608 ERL Erlbach, Arlene. *The Kids' Invention Book*. 1997.
Provides inspiration, featuring real stories of modern young inventors and their ideas. Walks through the idea and the patent process.
(Grades 4-6)

Reference:

- JR 507.8 PIL Pilger, Mary Anne. *Science Experiments Index for Young People*. 2002.
Indexes almost 700 science books for youth that contain experiments and projects.

Electronic Resources:***Facts on File: Science***

Includes experiments on biology, chemistry, physics, earth sciences, space, weather, nature, and historical aspects. Has links to definitions and printable experiments (pdf).

To access from home, you must have your Naperville Public Library card.

1. Go to the website at: www.naperville-lib.org
2. Click on eResources > Facts on File > Enter the last seven numbers on your card and your PIN# > Science Online > Experiments

Compiled using Gillespie, John T. (2002) *Best Books for Children: Preschool Through Grade 6*. Westport, CT: Bowker-Greenwood; *Booklinks* (ALA) October/November editions "Exploring Science" 2000-2003; National Science Teachers Association (www.nsta.org), and the American Association for the Advancement of Science (<http://www.aaas.org/>).

Some titles may not be available at all locations. Please check with staff for assistance.