



Reference Training Guides

Explore a Topic: Science Fair Projects & Experiments

Many students, of all ages and levels of enthusiasm, are required to construct science projects or conduct science experiments in the course of their school curriculum. Information in this subject area might also be useful for parents and teachers.

You may encounter customers asking the following types of questions in relation to science fair projects and experiments:

- I need some ideas for a science project. Can you help me?
- I'm looking for a ready-made, easy to follow project in biology for my child. Do you have any books that might have some?
- I want to start a science fair for my 3rd grade class. How would I go about setting that up?
- I've completed my science project, but I want some help and tips on setting up a good-looking display. Where should I go?
- I'm doing a project on physics, and I want some background information on physics in general so I know what I'm talking about. What do you have?

Useful keywords/subject headings for searching

Science Projects

Science Fair

Science Experiments

Science Competitions

Science Exhibitions

Dewey Decimal numbers

507.8 – Science experiments, collections

Each individual science, such as 530s – Physics and 540s – Chemistry

Internet links

Dragonfly TV Science Fair

<http://pbskids.org/dragonflytv/scifair/index.html>

A good source for science project ideas and basic tips; affiliated with PBS Kids. Geared towards younger students.

Elmer's Science Fair Central

<http://school.discovery.com/sciencefaircentral/>

A good source of science fair information from Discovery Education; includes definitions, project ideas, safety rules, FAQs and much more.

Exploratorium



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<http://www.exploratorium.edu/explore/hands-on.html>

A museum site that contains a nice categorized list of hands-on science activities. Sponsored by the Museum of Science, Art, and Human Perception in San Francisco.

Internet Public Library's Science Fair Project Resource Guide

<http://www.ipl.org/div/kidspace/projectguide/>

An excellent resource for the many steps involved in projects, such as getting started, choosing a topic, completing your project, and displaying your project.

Science Buddies Science Fair Project Ideas, Answers, & Tools

<http://www.sciencebuddies.org/index.htm>

A good site that offers project ideas and a detailed project guide section on the many aspects of creating a project; their topic selection wizard is a highlight. Includes a numerical difficulty rating for each project, from easy to advanced.

Science Fair Handbook

http://www.eduplace.com/science/profdev/science_fair/

An interesting site geared towards teachers planning science fairs; includes ideas, forms, and tips for putting on a fair.

Science Fairs Homepage

<http://www.cdli.ca/sciencefairs/>

Excellent site for science project ideas; project ideas are grouped by difficulty level from primary projects to senior projects.

Science Hound

<http://www.sciencehound.com/index.html>

A free, online service that lets you get advice, comments, and help on your project from real teachers. Requires account registration.

Thinking Fountain

<http://www.thinkingfountain.org/>

A good site with basic experiments for young children. Sponsored by the Science Museum of Minnesota.

TryScience

<http://www.tryscience.org/home.html>

Excellent site that contains interactive online demonstrations of science projects and also detailed directions for performing them at home.



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Databases

Grolier Online

Grolier Online contains many good articles on science-related topics and issues. The New Book of Popular Science, in particular, has some excellent science project related information in its “Projects” section.

Gale Virtual Reference Library

Under the “Science” category, there are several good reference works dealing with many different kinds of science. This database is useful for background information on the area of science you’re exploring, not for instruction on doing the project itself.

Books

1001 Ideas for Science Projects

507.8 BRI (Copies at Central and BVL)

A resource geared towards science students from middle school to college; each project is keyed to level of difficulty, availability of resources, and need for lab work.

Experiment Central

JUV 507.8 EXP (Copies at Central and all major branches)

An excellent 6 volume resource that includes a wide variety of experiments covering nine key science curriculum fields – Astronomy, Biology, Botany, Chemistry, Ecology, Geology, Meteorology, Physics, and the Scientific Method. Contains projects for all ages, including older students.

General Science: Basic Activities

REF 507.8 KUT (Copy in Reference at Central)

A great reference resource for K-6 science students needing project information and help. This resource is part of the Grolier Fundamentals of Science Series, which includes other titles such as Basic Chemistry, Basic Biology, and Basic Physics.

Janice VanCleave’s A+ Science Fair Projects

JUV 507.8 VAN (Copies at St. Cloud and BVL)

The first part of this book explains the scientific method and other principles of good project construction; the second half contains 35 science projects. For ages 11 and up.

Junior Science Experiments on File

REF 507.8 JUN (Copies at Central and all major branches)

Contains information on 40 detailed experiments for elementary and middle school students. Gives you good step-by-step instructions for completing each project and includes estimated time needed and suggested observations.



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Science Experiments on File

REF 507.8 WAL (Copies at Central and all major branches)

Contains information on 60 detailed experiments for middle and high school students. Gives you good step-by-step instructions for completing each project and is organized by area of science.

Science Fair Projects for Dummies

507.8 LEV (Copies at Central, Celebration, and all major branches)

Science fair guru Maxine Levaren walks you step-by-step through every phase of choosing, designing, assembling and presenting a blue ribbon science fair project. She gives you the inside scoop on what the judges are really looking for and coaches you on all the dos and don'ts of science fairs. Includes 50 project ideas.

Science Fair Success Using the Internet

JUV 507.8 ROS (Copies at Central and all major branches)

A guide to using the Internet to help create a winning science fair project.

Scientific American: More Winning Science Fair Projects, Grades 5-7

JUV 507.8 TOC (Copies at Central and all major branches)

Contains detailed project information from several topical areas, such as sound, gravity, vitamins, etc.

Square Wheels: and Other Easy-to-Build, Hands-On Science Activities

507.8 RAT (Copies at Central, St. Cloud, and BVL)

Based in part on exhibits at San Francisco's famous touch-me museum, these 31 projects will capture the attention of kids (and the zeal of their elders) by using household materials and easy-to-follow directions to demonstrate scientific principles.

Local Contacts

Orlando Science Center

<http://www.osc.org/index.htm>

777 East Princeton Street

Orlando, Florida 32803

(407)514-2000

The OSC provides exhibits, programs, and events that students may use for inspiration and background information on projects. In addition, they host a science fair called the OSC Science Challenge.