## SCIENCE FAIR PROJECT IDEAS



Getting Started





A science fair project is a unique way to learn the formal process scientists use to pose questions and find out answers about the world around them



Science fair projects are a great learning experience that involve much more than science:

- Planning and organizing
- Critical thinking
- Research
- Technical writing
- া Math
- History
- Presentation skills

### **Project Types**

### Grades K-4

MODEL	Create a model of a scientific area (e.g., solar system, human eye, etc.).
DEMONSTRATION	Explain how something works or why something happens the way it does.
SCIENTIFIC EXPERIMENT	Answer a question or solve a problem. This type of project must follow the scientific method.

### Grades 5-12

SCIENTIFIC EXPERIMENT	Answer a question or solve a problem. This type of project must follow the scientific method.
ENGINEERING DESIGN	Design a solution to a problem and test the outcomes.

### SCIENTIFIC EXPERIMENT VS. ENGINEERING DESIGN



### Choosing a Topic

- Think about what you like!
- Do some research on topics you are really interested in.
- Think about what type of project you want to do.
- Brainstorm a list of any and all possible topics.
- Look up project ideas in books or on the internet.
- Be sure to keep safety in mind as you are choosing a topic/project.



# RULES

- **1** Think safety first before you start.
- 2 Never eat or drink during an experiment and keep your work area clean.
- **3** Wear protective glasses when doing any experiment that could lead to eye injury.
- 4 Do not touch, taste, or inhale chemicals or chemical solutions.
- **5** Respect all life forms. Refer to clermontlibrary.org/science-fair for rules about projects involving animals.
- 6 All experiments should be supervised by an adult.
- 7 Always wash your hands after doing the experiment, especially if you have been handling chemicals.
- **8** Dispose of waste properly.
- **9** Any project that breaks library policy, and/or local, state or federal laws is not permitted.
- **10** Use safety on the internet! Be sure to let an adult know about which websites you are visiting or have them help you with your research.
- **11** If there are dangerous aspects of your experiment, like using a sharp tool or the stove, please have an adult help you.

### Resources

### Internet

sciencebuddies.org

sciencefaircentral.com

education.com/science-fair

learning-center.homesciencetools.com/science-projects

### Library Databases

Visit clermontlibrary.org and navigate to Digital Library and then Digital Resources - Alphabetical. You will find the following databases there, listed in alphabetical order.

**Explora:** Supports both student research and classroom instruction with rich, reliable content.

**Gale in Context - Elementary** (formerly Kids Infobits): A great resource for young children that includes books, pictures, magazines, and news articles; provides images alongside text for ease of searching.

**Science Reference Center:** Topics covered include biology, chemistry, earth science, environmental science, science as inquiry, and more.

**World Book Online Reference Center:** Online version of the World Book Encyclopedia.

### Books

Blue Ribbon Science Projects by Glen Vecchione

**First Place Science Fair Projects for Inquisitive Kids** by Elizabeth Snoke Harris

Weird and Wonderful Science Experiments Vol 4 by Elizabeth Snoke Harris

**Kitchen Science Lab for kids** by Liz Lee Heinecke

And many more at your local library!





- **1** Keep it simple!
- 2 Be positive!
- Be honest. If you don't know the answer, help your child locate a source of information that may help.
- 4 Help your child look for ideas. Investigate libraries, the internet, etc.
- **5** Seek out people to help, such as other adults, teachers, or professionals.
- 6 Allow time for thinking, exploring, and doing the experiment.
- 7 Emphasize "how-to" skills e.g., observing, rather than memorizing facts.
- 8 Be excited and learn with your child ask lots of "What do you think..?" type of questions.

Be sure to visit our website at **clermontlibrary.org/science-fair** for more resources and information on this and other components of creating a Science Fair project.

All Science Fair project proposals must be submitted through the registration form on the website by the deadline stated on the form to be considered for inclusion in the Library Science Fair.

> Questions? Email us at: sciencefair@clermontlibrary.org



CED 10-2022