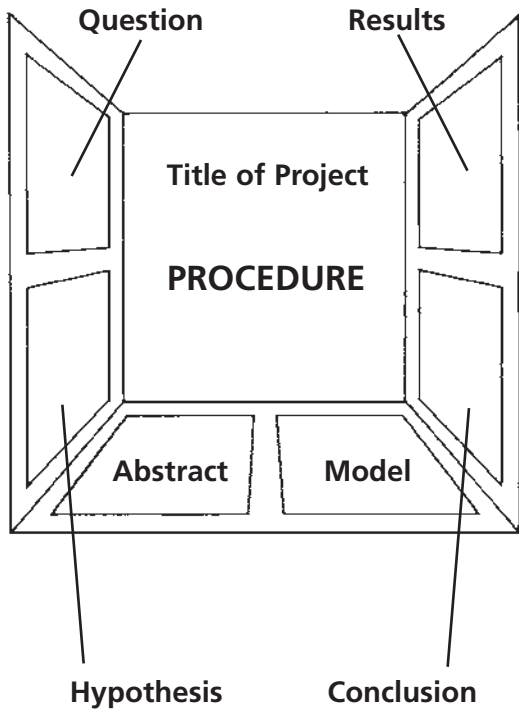


The most important thing is to select a topic that interests you. Give yourself plenty of time to do the project, keep good records and understand your topic.



To learn about coal, check the following Web sites:

[www.teachcoal.org](http://www.teachcoal.org)  
[www.balancedenergy.org](http://www.balancedenergy.org)  
[www.ceednet.org](http://www.ceednet.org)  
[www.co2science.org](http://www.co2science.org)  
[www.coaleducation.org](http://www.coaleducation.org)  
[www.careenergy.com](http://www.careenergy.com)  
[www.need.org](http://www.need.org)  
[www.eia.doe.gov](http://www.eia.doe.gov)  
[www.msha.gov](http://www.msha.gov)



American Coal Foundation  
101 Constitution Avenue NW  
Suite 500-E  
Washington, DC 20001-2133  
202/463-9785 • 202/463-9786 fax  
[info@teachcoal.org](mailto:info@teachcoal.org)  
[www.teachcoal.org](http://www.teachcoal.org)

# Coal Science Fair Ideas



**A**re you looking for a science fair project idea? Why not do a project related to coal. Coal is used to generate more than half of America's electricity. In the box are project ideas that are associated with coal's production and use.

Hopefully, one of these ideas sparked your interest and you are ready to do a science fair project. Before you begin, be sure to check with your teacher to get the procedures and rules for the science fair.

**[1.]** Choose a title that describes your project but also is catchy.

**[2.]** Use the scientific method, which is a series of steps scientists follow to do their research. The terminology may differ from school to school but basically the scientific method consists of a purpose, hypothesis, procedure, result(s) and conclusion. If you are unfamiliar with the scientific method, ask your teacher to explain the process.

**[3.]** If you are required to write an abstract or summary of your project, be sure you describe what you set out to do, what you accomplished and how you accomplished it. Before you write, be sure your thoughts are clear. Finally, check your spelling and grammar.

**[4.]** Put together your exhibit for the science fair. The objective of the exhibit is to explain your project. Remember most people are not as familiar with your topic as you are. Be sure the title can be seen from a distance and all the labeling is neat and clear. Posters can highlight the main point of your project. Graphs and photos are simple ways to illustrate your results. Also, photos can be used to display items you could not bring to the science fair.

**[5.]** The materials for your exhibit can be mounted on a backboard. Be sure the backboard is strong, light-weight and can stand by itself without any additional support. Finally, be sure to make everything sturdy so it can be moved safely and will arrive at the fair in good shape.

## Coal Science Fair Ideas

- There are several ranks of coal. What methods can you use to identify the ranks?
- What does coal look like under a microscope?
- What causes acid mine drainage?
- What is the best neutralizer for treating acid mine drainage?
- Can plants neutralize acid water?
- What effect does soil compaction have on growing plants on reclaimed land?
- Power plants use a scrubber to treat sulfur dioxide emissions emitted after coal is burned. How does a scrubber work?
- Fluidized bed combustion is a new method for burning coal. It does not require a power plant to add a scrubber. How does a fluidized bed work?
- What is coal gasification and how does it work?
- What commercial uses can be made for coal combustion by-products?
- What is the ash content of a coal sample?
- What is the sulfur content of a coal sample?
- Where does coal formation fit into the carbon cycle?
- How efficient is electric power generation from coal?