2019 Cobleskill-Richmondville Elementary Science Fair Guide for Students & Parents

STEPS TO A SUCCESSFUL SCIENCE FAIR PROJECT

Step 1

Choose a project type from page 2 of this packet. Need an idea? Helpful resources and websites are located on page 3 of this packet.

Step 2

Create your demonstration, conduct your experiment, build your model, or design your invention! If you are conducting an experiment, use the form on page 4 to help you plan your project. For all projects, follow the safety rules on page 6.

Step 3

Display your project. Include words and pictures to tell and show what you did. Follow the helpful hints on page 5 about ways to display your work on a project display board.

Step 4

On **Tuesday, May 21st** bring your project to **Radez Elementary School**. Projects will be displayed in the gym. You may start setting up your Science Fair Project between 5:30 and 6:00 p.m. (No earlier than 5:30 please!) If you have a messy project please protect the floor and tables with plastic drop cloths.

Step 5

From 6:00-7:00 p.m. you will share and show off your project. You may take short breaks to check out other projects. At the end of the Science Fair you are responsible for cleaning up your project area and taking your project home.

REMINDER:

The Elementary Science Fair takes place at RADEZ Elementary on May 21st for ALL STUDENTS Pre-K through Fifth Grade!

SOME TYPES OF PROJECTS

TYPE	EXAMPLES
Demonstration Displays, Diagrams, Exhibitions	• Make a diagram of the water cycle and explain how it works. • Display pictures and information about a type of animal or a habitat. • Show how a bike works. • Exhibit a collection of rocks or crystals.
Model Models, Dioramas	• Design and label a model of the eye. • Build a model of the Solar System. • Make a diorama of a tropical rainforest habitat. • Grow a stalactite and explain how stalactites form. • Build a model of a bridge.
Experiment If you choose to do an experiment, **see page 4** of this packet to help you plan your project using the scientific method.	• Which materials work best to clean a penny? • Which laundry detergent works the best on different types of stains? • How does soda affect teeth? • Which bridge design supports the most weight? • Which type of grass seed grows the fastest? • Which paper airplane design flies the farthest? • Does the color of food or drinks affect whether or not we like them?
Invention This does not need to be a working model.	• Invent a device to make a job or task easier, or to solve a problem. • Make a camera. • Build a magnetic car. • Build a machine to feed your pet automatically.

You may work alone... with a partner or group... or with your whole class.

I want to do a project… now what?

- Visit the school library or Community Library for books. Check out the resource list available for you at the Community Library in Cobleskill!
- Visit one of the websites below for lots of great information and research opportunities.
- If you do not have access at home to a computer, your child can visit the school library and look through a book of project descriptions. If they find one they'd like to try, they can fill out a request for a copy of it. A copy will be made ASAP and returned to your child.

Helpful Websites to Try!

For easy access to some Science Fair websites and video links to project ideas, visit Mr. Beekman's Science Fair webpage at:
beekman.weebly.com

http://www.scifair.org/ "The Ultimate Science Fair Resource" includes: Project Steps, Project Hints, Writing Reports, Display Boards, The Idea Bank, The Idea Exchange, and Research Links.

http://school.discoveryeducation.com/sciencefaircentral/Getting-Started/idea-finder.html "Science Fair Central" hosted by the Discovery Channel…lots of useful information and a "Science Fair Studio" with helpful hints!

http://sciencebuddies.org/science-fair-projects/project_ideas.shtml "Science Buddies" includes material lists and instructions for beginner, intermediate, and advanced projects ideas.

http://www.sciencebob.com/sciencefair/index.php "Science BOB" includes lots of helpful advice and information about science fair ideas, the scientific method, experiments, and science fair resources.

http://www.stevespanglerscience.com/experiments Visit "Steve Spangler Science" to browse the experiment library and for some great "parent tips."

http://www.ipl.org/div/projectguide/ "The Internet Public Library" offers a step-by-step Science Fair Project Resource Guide full of hints, tips, and ideas for choosing a topic.

http://www.sciencefairadventure.com. Comprehensive listings of science fair ideas and experiments with projects listed in an easy to follow manner with step-by-step directions to carry out the project.

Are you doing an experiment?

This **Planning Page** can help you organize and plan your experiment using the Scientific Method.

MY EXPERIMENT: _____

QUESTION(S): What do I want to find out?

_____

_____

_____

HYPOTHESIS: What do I already think before I try the experiment?
(It does not matter if your hypothesis is right or wrong.)

_____

_____

_____

PROCEDURE: How will I find out? What are the steps I will do answer my questions.

1. _____
2. _____
3. _____
4. _____
5. _____

RESULTS: What really happened? Explain why you think it ended up the way it did.

_____

_____

_____

CONCLUSION: What did I learn?

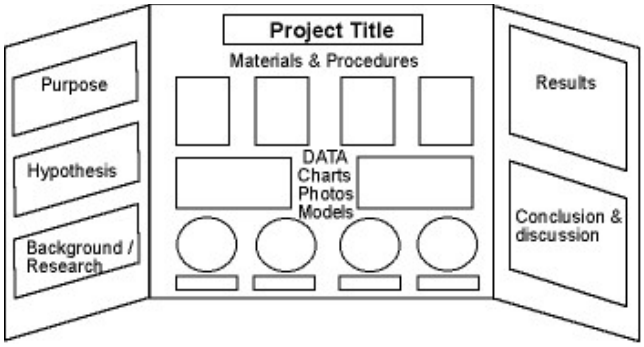
_____

_____

_____

HELPFUL HINTS for DISPLAYING MY PROJECT

Cardboard displays can be purchased or you may cut a cardboard box to use as a display. See photo below.



All parts should be written as neatly as possible. You may type or write your information. Use color construction paper to make important parts stand out. Add pictures and diagrams. Write your title in large, bold capital letters that can be read from across the room.

ALL DISPLAYS should include the following:

- a title
- your name, teacher and grade

DEMONSTRATIONS:
Write and show pictures that explain your demonstration. Clearly label parts of the model.

EXPERIMENTS:
Write and show pictures about the scientific method steps you followed. Label your question, hypothesis, procedure, results and conclusion.

INVENTIONS:
Write and show pictures about a problem that you thought about and how your invention will help solve the problem. Write the materials that you used and explain how you put them together. Label the parts of the invention.

SAFETY RULES

- No live animals should be exhibited at the fair. Models, stuffed animals, photographs, or videos should be used instead.

- No dangerous or combustible chemicals should be displayed at the fair. All chemicals displayed should have the contents clearly marked on the container. Rockets or engines must not contain fuel.

- No open flames will be permitted.

- SAFETY FIRST!!! While working on your project, students should wear safety goggles and follow standard safety practices especially when working with fire, electricity, heat, or chemical reactions. Parental supervision and approval may be required.

- It is recommended that all electrical experiments should be designed using direct current circuits of 12 volts or less. All projects using household electricity must follow standard wiring practices and safety. Open knife switches are not acceptable for circuits exceeding 12 volts. Wet cell batteries with open tops are not permitted.

- Do not display valuable or fragile items. Show a picture instead.

- Students should avoid doing experiments involving bacteria.

- No controlled substances such as prescription drugs should be exhibited.

- If you have questions, feel free to contact Mr. Beekman at: beekmanw@crcsd.org