

Science Fair Guidelines and Rules

- ✓ Size Limit: 36 in. high, 24 in. wide, 12 in. deep. It must stand on its own. A display board works well, but is not a requirement. You may also cut a display board across the width and share the other half with a friend.
- ✓ Choose one of the three categories: Earth Science (geology, meteorology/weather), Life Science (biology, botany, zoology), or Physical Science (chemistry, physics, astronomy – not to be confused with astrology).
- ✓ No open flames, dangerous chemicals, or live animals allowed.
- ✓ If you need electricity, you must provide your own LONG extension cord. You will be limited to a certain area of the cafeteria.
- ✓ Projects should be completed by the student. (Think of a question you have, and then find the answer through your experiment. Document and keep a record of important information. Upper grades, grades 4 & 5, are expected to use the scientific method).
- ✓ Judges may call students to the cafeteria if they have a question. Otherwise, the project should explain itself and students will remain in their classrooms during judging.
- ✓ Projects are expected to stay in the cafeteria until 7:00 PM on Thursday evening so that friends and family may view them all. If you cannot attend Thursday evening between 6:00 and 7:00 PM, your project will be set on the stage to allow for breakfast and lunch on Friday. All projects left after school on Friday will be disposed of.

The Three Science Areas

Choose a science area for your project. Make sure you circle that area on your registration form, which must be attached to the front of your project for judging.

Earth Sciences are concerned with how our planet works and how it came to be the way it is. It includes geology (the study of the earth's crust, rocks, fossils, etc.) and meteorology (the study of weather).

Life Sciences include the study of living things on the earth and their life processes. Biology fits into this category, as does Botany (the study of plants) and Zoology (the science that deals with animals).

Physical Sciences include Chemistry, Physics, and Astronomy (not to be confused with astrology, which is not one of our sciences). These are the most highly developed of the sciences and have a close relationship with mathematics. Physics includes the study of matter, motion, electricity, and magnetism. Astronomy is the study of planets and outer space. Chemistry is the study of properties and reactions of matter, particularly at the level of atoms and molecules.

What is the Scientific Method?

The Scientific Method is what scientists use to learn about things.

It has four major steps:

- State the problem. What is it that you want to find out? *Example: Do plants need sunlight?*
- State your hypothesis. What do you think is going to happen, or how do you think it works? *Example: If two plants are given the same good care, except that one is kept in a dark box, it will not grow as well as one kept outside.*
- Record your data. Write down or take pictures of what happens when you try your experiment. NOTE: Keep track of your data; it will be exciting to see if your guess was right. *Example: Two daisy plants were bought. One was kept in my bedroom window; the other was kept inside a foil covered toy box. Each plant was watered every other day. Each plant was measured every week. After four weeks, the one in my window grew an inch and made three flowers. The other plant shriveled and almost died.*
- State your conclusion. Did what you expect happen? What did you learn? NOTE: Your conclusion should tell us what your data showed you. *Example: Light is very important for plants to grow and bloom.*