2023 Science Fair Helpful Hints

Have fun! Entering the Science Fair is a fun way to introduce your student to scientific concepts such as the hypothesis, the experiment, and the conclusion while helping them expand their imagination.

Make sure you ask your student a lot of questions about their project so he/she understands WHY and HOW an experiment can provide an answer to a scientific question.

Here are some fun Project Ideas to help you get started!

What to Expect in Grades K-2

Simple projects are best! Students at this age group are just learning to observe, measure, cut, connect, switch, turn on and off, pour, hold, tie and hook.

Discuss with the scientist:
1) What they think will happen,
2) Observe what happened and
3) Reflect and discuss what actually happened.

Take photos of the preparation, of the activity, and the outcome. This can help with communicating about the project for those scientists developing writing skills.
Some ideas to consider are:
• Student demonstrations (like exploding volcanoes)
• Categories (grouping kinds of trees, bugs, etc.)
• Collections (identifying different types of leaves.)
• Reports with displays (measuring rainfall, plant growth, etc.)

What to Expect in Grades 3-4

Students are able to understand the concept of the Scientific Method. See more on the Scientific Method on the following page. They can define a specific question, propose the answer (hypothesis), organize the testing and measuring, gather data and make a conclusion. Students can use thermometers, watches, balances, magnifiers, microscopes and calculators

On the display board, include the following categories:
* Title
* Question/Problem - What do you want to find out?
* Hypothesis - What do you think will happen?
* Procedure - What did you do?
* Results/Answer - What actually happened?
* Conclusion - What did you learn? BRAINIAC BIG HINT – Use LOTS of visual aids to describe your experiment and results.

Scientific Method Grades 3-4

• Question: Define the question to the problem you are trying to solve. For example: “How long does it take for mold to grow on yellow cheese?”

• Hypothesis: Your hypothesis is your best educated guess of the answer to the question you are trying to solve. For example: “I am estimating that it will take at least 3 weeks to grow mold on yellow cheese.”

• Procedure: In this step, you define your plan of action. List all of your steps and give all of your details. Your procedure should be clear and specific enough for someone to easily follow and perform the experiment themselves. For example: “I will put the cheese on a plate and put it in a dark closet. I will check the cheese twice each day. I will make sure that the temperature of the closet is between 65 and 75 degrees each time I check. I will mark down my findings each time I check.”

• Results: List all of your observations and all of your results. The use of graphs and charts is recommended.

• Conclusion: What happened? Did you get the answer you expected? If no, why not? Were you surprised by any of your results? Why?

• Title: Choose a title for your experiment. Use your imagination and think of a fun and informative title. For example: “ Would you eat this cheese for lunch?