



4th Grade Campbell School Science Fair THURSDAY, March 21, 2019

Dear Parents and Students,

It's that time of year already! That's right! It's time to start thinking about this year's science fair. In just two months, the Campbell School gym will again transform into something quite magical! It will become a room full of exciting surprises, as students from 4th grade share with their parents and friends the wonderful science fair projects that they have worked on. As in the past, this event is one of the highlights of Campbell School's Open House, and is not to be missed. **Like last year, the 3rd & 4th grade science fairs will be 2 separate events. Our Wednesday science fair will be for 3rd graders and our Thursday science fair will be for 4th graders.** The 4th grade science fair takes place in the afternoon for students AND in the evening for family & friends beginning at 6:30 PM. In preparation for the science fair, the most difficult part about preparing for the science fair is coming up with an idea for a project. Here are some guidelines to help you:

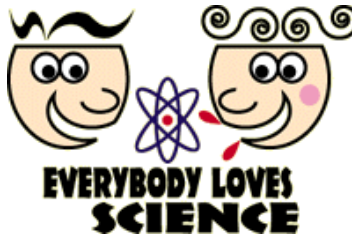
1. Ask your family to help you come up with good ideas.
2. With the help of your parents, check out the great Internet sites on "Mr. Nolde's Science Fair Help Page."
3. Go to either the public library or the Campbell School library.
4. Still stuck for an idea? Ask me, Mr. Nolde for help and advice.

Here are some other important guidelines that you should know about the 4th Grade Science Fair:

- All students who participate will receive a participant award and will receive extra credit towards their science lab grade.
- All students who participate will be eligible to win a wide variety of prizes in our science fair raffle.
- Students must submit their entry form to me **NO LATER THAN** Friday, March 1st.
- **Students may ONLY work with other students who are in 4th grade. (NO MORE than 3 to a group! I really prefer groups of 2 -you and a friend.)** You may also work by yourself.
- The majority of the work done on the project must be done by the students, not by parents.
- Projects involving live animals are prohibited. Bacterial cultures are not allowed to be brought into the science fair.
- If you know that your project may create messy spills or any trash, please make sure that you have plenty of clean-up materials with you (garbage bag, paper towels, dishpan, bucket, tray, etc..)
- **The following projects have historically created disastrous messes and are NOT allowed:**
 - Projects involving **cornstarch, potato starch, polyvinyl alcohol, or glue** (ie. "gak," "ooblek," "magic mud")
 - Projects involving the combination of **vinegar & baking soda** (ie. erupting volcanoes)
 - Projects involving **cooking oil or dishwashing soap** (ie. lava lamps, magic milk experiment, etc..)
 - Projects involving the use of **sand**
 - Projects involving liquids **GREATER THAN TWO Quarts** (Please be sure you have a **tray** underneath liquids!)
- No candy or food of any kind shall be given out by science fair participants.
- Projects involving eye hazards are prohibited, including, sharp pointed objects, laser pointers, any hot liquids, chemicals not found in a typical kitchen, small flying objects and impacts intended to break objects.
- Absolutely no testing on humans or animals is permitted in any experiments or displays.
- NO "PRIZES," "GIFTS," or "HANDOUTS" of any kind shall be given out by science fair participants.
- Science fair presenters will be standing **BEHIND** their projects, **NOT** in front of their projects.
- If you are planning to use a science fair display board, please lower the height of your science fair board OR create a **LARGE** space in the middle of your board so that you can stand behind it!! (**Please refer to my website for display ideas!**)
- Chairs, step-stools, and ladders are not permitted in the science fair. (They are a fire & safety hazard!)
- **Parents of science fair participants are asked to help in getting the projects to Campbell School gym on the morning of THURSDAY, March 21st.**

I look forward to getting your entry forms soon. As always, I'm really looking forward to seeing you and your science fair project on the day of the science fair! Be sure to visit my website: coolsciencelab.com

Sincerely,
Jonathan Nolde
Hands-on Science Teacher



Types of Science Fair Projects for 4th Grade:

Here is a brief description about each of the types of science fair projects that are listed on the 4th grade science fair form.

(PLEASE don't limit your ideas to only the examples given!)

Model: In this type of project, students build a scaled model to demonstrate a scientific process, principle or to demonstrate a particular innovative aspect of modern technology or design. Most often, when people think of science fair projects that involve models, the first thing that comes to mind is making a model of our solar system. When you really think about it, there are **lots** of other science fair project possibilities that involve creating a model. Here are some to get you thinking: creating a model that demonstrates what causes a lunar or solar eclipse, or what causes the phases of the moon, or a model to demonstrate the water cycle, or a model to demonstrate how different landforms are created, or a model to demonstrate the marvels of modern architecture..... The list goes on and on!

Scientific Instrument: STEM (Science, Technology, Engineering, & Mathematics) has become a huge push in science education. As we all know, the advancement of science and technology go hand in hand. In this type of science fair project, students either explore how a particular piece of technology works or how a particular piece of scientific equipment continues to help scientists learn about the world around us. Examples include: how a radio works, how a telegraph or telephone works, how a computer works, how a barometer works, how a thermometer works, how a microscope works, how a car engine works, how we are using technology to reduce our impact on the planet.... Again, the list goes on and on!

Demonstration: In this type of project, students demonstrate how a particular scientific principle works. In the past, science demonstrations have been the most popular type of science fair project as these projects oftentimes lend themselves towards greater interactivity with science fair visitors. Popular avenues to explore (BUT PLEASE DON'T limit yourself to just these!!) include, color & light, electricity & magnetism, properties of matter, energy & forces, animal adaptation... just to name a few.

Experiment: Every good experiment starts with a good question! In this type of project, students begin with a question, form a hypothesis, and then test their hypothesis by designing an experiment. Once students have conducted their experiment and have collected their data, students then draw conclusions based on their findings. Experiments are by far, the most sophisticated type of science fair project. Over the years, students have found that this type of project also lends itself towards greater interactivity with science fair visitors. For ideas on experiments, please be sure to check out my "Science Fair Help Page." The links that are there will take you to LOTS of good Internet sites that contain plenty of great experimental questions for you to explore.

2019 Campbell School Science Fair Entry Form

4th Grade Science Fair: **Thursday afternoon AND evening, March 21st**

Entrant's Name(s):

(If you are planning on working with a partner, your partner must also be in 4th Grade!)

Homeroom Teacher(s):

1) What type of science project are you doing? (circle one)

Model

Demonstration

Experiment

Scientific Instrument

Other: _____

2) What is the title of your project?

3) Describe how you will design and display your science project. Will your project need to use water? Will you need an electrical outlet?

Please be sure to CAREFULLY read the science fair guidelines published in the science fair letter when choosing a science fair project!

Please return this entry form to Mr. Nolde no later than Friday, March 1st.