

# Jennings School 8th Annual Science Expo For Grades 2 through 5



Dear Student,

The PTA is proud to sponsor our **8th Annual Jennings School Science Expo**. Students in grades 2 through 5 are invited to hypothesize, experiment, and question. Students will display their findings on **Thursday, November 16th from 6:30 p.m. to 8:00 p.m.** in the Jennings School Gym. Parents and siblings are invited as this is not a drop off event.

The enclosed material will outline the initial information requirements for participation. Highlighted below are a few general rules/tips to keep in mind for the Expo.

- Students should have FUN deciding on a science project... all you need is an idea and a prediction, a.k.a. - hypothesis! For assistance, a sample project is attached. Use this sample and the blank guideline for reference when creating your experiment and display. Try to investigate something of interest to you. What have you always wondered about? Don't be afraid to ask questions like "What would happen if???"
- Students may enter the Science Expo as individuals or in teams of two. Teams greater than 2 students will NOT be considered.
- No open food items are allowed for the physical display at the Science Expo. Food items must be carefully and securely sealed or you can take pictures for your display.

- The Jennings School library and the Fairfield Woods Branch Library both have wonderful resources to help you come up with an idea. The following websites are a good resource as well:

- [www.sciencebuddies.com](http://www.sciencebuddies.com)
- [www.sciencefairadventure.com](http://www.sciencefairadventure.com).
- <http://pbskids.org/designsquad>
- [www.exploratorium.edu/explore/activities](http://www.exploratorium.edu/explore/activities)
- <http://www.pbs.org/parents/education/science/tips/exploring-science/>
- [www.eie.org/](http://www.eie.org/)
- <http://www.inquiryinaction.org/>

- Please feel free to contact Kathleen Ruppert ([kruppert@fairfieldschools.org](mailto:kruppert@fairfieldschools.org)) with questions about the Expo. Students may also check in with Mrs. Ruppert at school if they have questions as they design their experiments.

- **The deadline for paperwork submission to participate is Monday, November 6th.** Please return your completed participation form in an envelope marked “Science Expo” to the Jennings Office.

We are looking forward to a wonderful variety of science projects across the grade levels!

Thank you,  
Kathleen Ruppert

# Tips for Exploring Science with Children

A common science question from adults is, “How can I explain such a hard concept in a simple enough way for my child to understand?” Find the most effective strategies and suggestions for exploring science with children.

## **Explanations Do Not Always Help**

Explanations, even simple ones, do not always help children (or adults, for that matter!) understand complex ideas. So what’s a parent to do? The simple answer is to worry less about explaining to your child, and spend more time modeling the fun of science: going on walks, mixing things, testing to see what will happen, observing carefully and wondering along with your child.

## **Science Is About Trying to Make Sense of the World**

Science is not simply about knowing information—it is equally a way of trying to make sense of the world. Scientists must ask questions, design investigations, try to make sense of the information they have gathered during the investigations, and communicate and defend their thinking to others. They don’t always find the answers to their questions, and they don’t always agree.

## **Help Children Think Like Scientists**

It is much more important for parents to help children develop the skills they need to think like scientists than to help them understand complex scientific concepts. Even the youngest children are quite capable of beginning to build these skills.

## **Here are a few pointers to keep in mind as you enjoy science alongside your child:**

**You don’t need to have answers for all of your child’s questions!** Encourage your child to develop his own science thinking skills.

**Listen carefully to your child.** Engage her in conversation about what she thinks, and encourage her to explain why she thinks as she does by asking questions such as, “Why do you think the snail is eating that leaf?”

**Don’t immediately correct your child.** If your child says something scientifically incorrect, help her discover for herself what is correct rather than correcting her. For example, if she says “heavy things sink, you can ask her, “Which heavy things have you seen sink?” Or, “I wonder if we can find something heavy that can float?”

**Model curiosity.** Wonder aloud: “I wonder what will happen to this pudding mix when we put the water in?”

**Children develop at different rates.** Keep this in mind as you do science activities with your child.

Taken from Tips for Exploring Science with Children

<http://www.pbs.org/parents/education/science/tips/exploring-science/>

## Example of Scientific Process- Parachutes

### Question

Which materials and design will produce a parachute that descends at the slowest rate possible?

### Hypothesis (Prediction- What do you think will happen?)

I think that the parachute made from a plastic bag will be the slowest.

### Materials:

- Coffee filter
- Construction paper
- Plastic bag
- Tissue paper
- String
- Tape
- washers

### Procedure:

1. Build 4 parachutes.
2. Each parachute will be a 8 inch by 8 inch square.
3. Each parachute is made from a different material: coffee filter, tissue paper, plastic bag, and construction paper.
4. Each parachute is made by taping four 12 inch strings to each corner of the paper and attaching the ends of the string to a washer.
5. Each parachute is dropped from the same height.
6. The time it takes to fall to the ground is measured in seconds.

### What was the outcome? What did you observe?

I dropped each parachute 5 times and timed how long it took to land.  
I noticed that the parachute made from the coffee filter was the fastest to land and the parachute made from the tissue paper was the slowest.

### What does this make you wonder? What could you change?

This is the time to test your experiment in a new way. What if I made the parachutes larger? Smaller? With cloth or netting or paper towels? What if the paper was wet instead of dry? What if the strings were shorter? To test these variables, change only one at a time. Record and share results on your poster.

## Student Planning Sheet

Question:

Hypothesis (Prediction- What do you think will happen?)

Materials:

Procedure:

What was the outcome? What did you observe?

What if??? What does this make you wonder? What can you change?

# Science Expo Participation Form



**Forms Due by Monday, November 6<sup>th</sup>, 2015.**

Student (s) Name: \_\_\_\_\_

Grade Level and Teacher: \_\_\_\_\_

Telephone: \_\_\_\_\_

Parent Email: \_\_\_\_\_

**What is the question you want to investigate?**

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**What variable are you going to change?**

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**What materials are you going to use?**

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**Do you need access to electricity?    YES            NO**

If yes, please bring an extension cord. We cannot guarantee access for everyone so plan for a back up – i.e. a fully charged battery for a laptop.

**Please send this form to the Jennings Office in an envelope marked Science Expo.**

**by Monday, November 6th**

