

February 14, 2008



# Larrabee School Science Fair

*Ask a Question...*

**When:** Thursday, March 27, 2008 from 5:30-7:30

**Where:** Larrabee School Gym (science fair projects) and Cafeteria (pizza dinner)

**Who:** Larrabee students, families, and friends

**What:** A non-competitive, low-key science fair open to all Larrabee students. All children are encouraged to participate. Students can choose to do an experiment or a research project. Work for the science fair is completed at home- this is a great homework/ASL activity for all kids! Pizza dinner will be available for families while at the science fair too. Be on the lookout for more details about the pizza dinner in future VIP folder info.!

**Questions:** Larrabee PTA member Jen DeVange (j.devange@msn.com) or Larrabee teacher Patrice Wilson (pwilson@bham.wednet.edu).

Science is about **asking questions** then trying to answer those questions. What are you curious about? What do you notice in the world around you that you want to learn more about? We hope that you can settle on one thing that you wonder about, do an experiment or research on it, then share what you have learned with others at Larrabee's upcoming school science fair! Participation is voluntary but we highly encourage everyone to get involved in this fun and educational event!

If you're not sure what to choose for a topic, you will find lots of ideas included in this packet. Use the lists to help you choose a project or inspire an idea for another project. The possibilities are endless! The Larrabee and public libraries have some good science fair books and Larrabee's website has some links to science fair resources (under Student Resources section, go to the bottom of the Science category, the first 5 sites under Miscellaneous Science Sites are related to science fairs). We've also left a couple of books in the office that you can look at for ideas — please leave these in the office so others can use them too.

As you work on this project, please remember that the goals for you and your child are to have a fun and positive experience while doing science, to learn something new, and to gain experience presenting information to other people. Please keep the projects simple for your own sanity!! If you have more than one child at Larrabee, you may choose to do a family project. Students may also work with a friend on a project.

Attached to the back of this packet, is a **science fair project signup form to be returned by Wednesday, March 5**. This will allow your child enough time to work on the project once s/he has decided on a question.

Thank you and have fun!

# Important Science Fair Dates



**Thursday, February 14:** Packets and signup forms distributed in VIP folders

**Tuesday, Feb. 19 - Wed., March 5:** Signup forms accepted (give to teacher or office)

**Friday, February 22 - Friday, March 7:** Signup forms approved and returned to student (usually a few days after they are turned in)

**February and March:** Students work on experiments and research.

**Friday, March 14:** Display boards distributed (be sure to mark the box on your signup form if you'd like one). Display boards are tri-fold in design and are approximately 36" high by 48" wide. You do not need to use a tri-fold board to display your information. In Room 2's annual science fair, students have shared their information using white boards, dioramas, videos, and many other creative ways to share what they have learned.

**Thursday, March 27:** Bring finished projects to the gym in the morning (please make alternate arrangements on this day if your child rides the bus as district rules don't allow large items to be carried on the bus). Volunteers will set up the displays in the gym by grade level. Return to Larrabee with friends and family between 5:30 and 7:30 to see all the projects!

**Friday, March 28:** Classes tour the projects during the morning. Students bring projects home with them afterschool. (again, please make alternate arrangements on this day if your child rides the bus).

## Larrabee Science Fair Rules

1. Students must sign up in advance using the attached science fair signup form. Parents must agree to be responsible for oversight and safety of the science experiment and/or research. Parents are encouraged to assist students in identifying projects that can be conducted safely.
2. Experiments must not harm or scare people or animals.
3. If the experiment does involve using animals, students are encouraged to take photos of the subject rather than bring animals to the fair. Small caged animals such as a hamster, ants, worms, etc. will likely be permitted but please note it on your signup form.
4. Experiments must not use dangerous substances.
5. Parents should provide assistance as needed but not complete the project for the child. How much assistance your child will need is dependent upon his/her age so please use your best judgment on this one!

# Option One: Experiment using the scientific method



This option is an experiment that uses the scientific method as described below:

**Question:** What are you trying to find out?

**Hypothesis:** What do you think is going to happen?

**Materials:** What will you need to use to complete your experiment?

**Procedures:** What steps will you take to try to answer your question?

**Data & Results:** What happened when you did the experiment? What information can you count and measure?

**Conclusion:** What did you learn from your experiment and how is it related to everyday life?

**If you choose Option 1 (Experiment using the scientific method), you should do the following:**  
(hint: finishing the sentences in # 1 - 4 will help you plan out your experiment)

1. **Choose a topic:** What are you curious about? Find somewhere to keep track of your information (a notebook or paper stapled together). Keep careful notes of the research you do.

\*I am curious about....

2. **Ask a question:** This question will be the title of your project on your display board.

\*My science question is....

3. **Design an experiment:** An experiment is a test to find the answer to your question. What are your procedures? How will you test your hypothesis?

\*I will do the following steps to try to answer my question...

4. **Gather your materials:**

\*I will need to use the following items to complete my experiment...

5. **Do the experiment:** keep good notes of what steps you did and of what you observe, take pictures for your display board (optional but it might help you share your results).

6. **Record your results?** Charts and tables can be helpful in organizing results.

7. **Draw conclusions about your results.**

8. **Prepare a display board that includes all steps of the scientific process.**

9. **Practice explaining your project:** People at the fair will likely have questions for you about what you did and learned.

# Ideas for Experiments using the Scientific Process



If you chose **Option 1: Science Experiment Using the Scientific Method** but aren't sure about your topic yet, the questions and examples below may help you. Try putting different words in the blanks (examples given below sentences):

☆What is the effect of \_\_\_\_\_ on \_\_\_\_\_?  
detergent                      seed germination  
temperature                      the volume of air

☆How does the \_\_\_\_\_ affect \_\_\_\_\_?  
color of a material                      its absorption of heat  
water temperature                      solubility

☆Which \_\_\_\_\_ (verb) \_\_\_\_\_?  
foods                      do                      gerbils prefer  
detergent                      makes                      the most bubbles

## Other examples:

- What effect does light have on plants?
- What kinds of foods do certain wild birds prefer?
- Can wind be used to make electricity in the area where we live?
- How does the amount of sediment/water temp. change along a creek?
- How long does it take worms to compost a banana peel vs. an apple peel?
- What brand of chocolate chip cookie has the most chocolate chips?
- How does salinity vary within Bellingham Bay?
- Do snails or earthworms travel faster?
- How do different solutions (water with salt, sugar, soap, etc.) affect plant growth?
- How does sugar affect the growth of yeasts?
- Does fertilizer make a bean plant grow faster?
- What effect does temperature or rainfall have on the activity of earthworms?
- How many seeds are in the average apple? Does it vary by apple type?
- Which kind of paper towel absorbs the most water?
- Does ice float the same in different liquids?
- Will aspirin make cut flowers last longer?
- What brand of battery makes a toy run the longest?
- Which brand of bubble gum blows the biggest bubbles?
- Does taking a shower use less water than taking a bath?
- How long does it take a potato bug to travel 5 inches? On dirt? On rocks? On grass?
- How much does your heart rate change when you exercise?

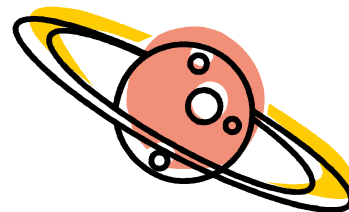
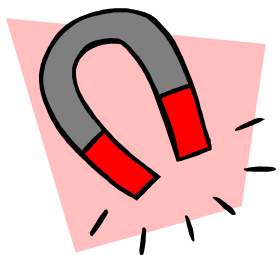
## Option Two: Science Research Project



This option involves doing research on a particular science topic. Students will identify a topic and a specific question they want to answer. Look at the next page if you need help in thinking of a topic.

**If you choose Option 2 (Science Research Project), you should do the following:**  
(hint: finishing the sentences in #1 & 2 will help you plan out your research)

- 1. Choose a topic:** What are you curious about? Find somewhere to keep track of your information (a notebook or paper stapled together). Keep careful notes of the research you do.  
\*I am curious about....
- 2. Ask a Question:** this question will be the title of your project on your display board.  
\*My science question is....
- 3. Research and report development:** Keep a list of all the research you do (books, websites, magazines, interviews, etc.). Begin assembling a report based on what you learn.
- 4. Prepare graphs, charts or pictures to show what you learned.**
- 5. Prepare a report:** The report should be no more than 3 pages in length and should be typed or neatly handwritten. Your report should include the following:
  - Cover Page: Title (your question), Author, Grade Level, Date
  - Process: Why you chose your topic, what research you did, what you learned
  - Bibliography: Make a list of your resources (books used, web sites, people you interviewed, etc.)
- 6. Prepare a display board:** Your display board should include your question and what you discovered about your research topic. You might also want to bring some materials related to your topic (for example, if you researched about native plants, bring in some live examples of native plants) to make your display more interesting.
- 7. Practice explaining your project:** People at the fair will likely have questions for you about what you did and learned.





# Ideas for Science Research Projects

If you chose **Option 2: Science Research Project** but aren't sure about your topic yet, the examples below may help you.

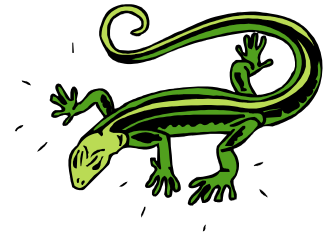
## Examples:

- Animals living in the intertidal zone
- Parts of a tree, flower, bee hive, etc.
- Characteristics of each animal kingdom (mammals, birds, fish, etc.)
- Mollusk shells (clams, oysters, mussels, scallops, snails, etc.)
- Different types of bird feathers
- Create life-size clay bird eggs and/or nests
- Wild animals living in Whatcom County
- Similarities and differences between amphibians and reptiles and/or birds and mammals
- Prepare a nature guide (plants, trees, animals, etc.) of your neighborhood or a local park.
- Life cycle of an animal (salmon, frog, butterfly, fruit fly, etc.)
- Types of slugs in our area
- Research and display an animal habitat
- Layers of the earth.



## Research ideas from A to Z:

- A amphibians, apples, animals, archaeology, ants, astronomy, air  
B blood, bats, birds, boats, bananas, bones, brain, butterflies, beans, biomes  
C chemistry, color, computers, conservation, constellations, chameleons, coins, crabs  
D dinosaurs, dirt, dragonflies, dogs, dolphins, dandelions  
E ear, eye, electricity, earthworms, earth, energy, earthquakes  
F fish, fossils, fingerprints, fruit, flowers, food chain  
G geology, gravity, gardening, giraffes, gorillas, glass, glaciers  
H heart, human body, habitats, horses  
I ice, insects, invertebrates, igloos, islands  
J jelly fish, jello, jaguars, jet planes  
K kelp, kangaroos, kaleidoscopes, komodo dragons, kites  
L lizards, lungs, lightening, lava  
M magnets, matter, moon, moths, money, mountains, mummies  
N natural resources, nasturtiums, native plants  
O oceans, owls, ostriches, oranges, orca whales  
P plants, planets, pollution, peas, photosynthesis, pumpkins, pyramids  
Q quail, quick sand, queen bee, quince  
R rocks, reptiles, robots, rain forest, raspberries  
S stars, soap, sound, solar power, spiders, salt, sharks, solar system, seashells, sand, seeds  
T turtles, teeth, trains, tornadoes, turnips, tides  
U unicycles, underwater life, ukulele, umbrellas  
V volcanoes, vertebrates, vocal cords, violins, vitamins  
W water, weather, winter, worms, whales, waves, weeds  
X x-rays, xylophone, xigua (Chinese for watermelon!)  
Y yeast, yo-yo's, yogurt, yellow-bellied flyer  
Z zinnias, zebras, zucchini





# Science Fair Signup Form

*Return this form to Larrabee by Wednesday, March 5.*

Student's name \_\_\_\_\_

Grade \_\_\_\_\_ Teacher \_\_\_\_\_

Home telephone number \_\_\_\_\_

For the science fair, I would like to (choose 1)

\_\_\_ perform an experiment using the scientific method (option 1)

\_\_\_ present a science research report (option 2)

My science question is: \_\_\_\_\_

Briefly describe your experiment or research plan in the space below (include any unusual display requirements):

\_\_\_\_\_ I would like a tri-fold display board for my project (distributed on Fri., March 14).

\_\_\_\_\_ I will need an electrical outlet for my display (limited availability).

I understand the rules of the science fair and am choosing this question to answer by Mar. 27.

Student's signature \_\_\_\_\_

I understand the rules of the science fair and agree to be responsible for the safe completion of the above science fair project.

Parent's signature \_\_\_\_\_

This form will be copied and returned to you once your project has been approved.