TITLE

PROBLEM

STATEMENT

HYPOTHESIS
CONSTANTS

DATA

RESULTS

CONCLUSION

APPLICATIONS
STUDENT SCIENCE FAIR LOG BOOK

NAME: __________________________________________

TEACHER: _______________________________________

CATEGORY: _____________________________________

TITLE: __________________________________________

My problem statement: Due Nov. 2-6

________________________________________________________

My hypothesis: Written as an If/Then statement: Due Nov. 2-6

________________________________________________________

________________________________________________________

Resources: You must have no less than 3 resources (books, magazines, newspaper articles, websites). Due Nov. 23-25

________________________________________________________

________________________________________________________

________________________________________________________
Procedure: Steps I will use to perform my investigation:
Due Nov. 16-20
Steps:
1. ______________________________________________________
   ______________________________________________________
2. ______________________________________________________
3. ______________________________________________________
4. ______________________________________________________
5. ______________________________________________________
6. ______________________________________________________
7. ______________________________________________________
8. ______________________________________________________
9. ______________________________________________________
10. ______________________________________________________

My constants: (If applicable): Due Nov. 16-20

________________________________________________________________

________________________________________________________________

My variable: (If applicable): Due Nov. 16-20

________________________________________________________________

________________________________________________________________
List of materials/equipment I will use (quantity and dimensions):
Due Nov. 16-20
1. ______________________  2. ______________________
3. ______________________  4. ______________________
5. ______________________  6. ______________________
7. ______________________  8. ______________________
9. ______________________  10. ______________________

My results: Due Nov. 23-25


My conclusion: A summary of what your experiment shows and how your work can be used for more research. How could I have improved my project? Did my results support my hypothesis? Why or why not? Due Nov. 23-25


Abstract: Due Nov. 23-25

Paragraph 1 – Describe your purpose and hypothesis.
Paragraph 2 – Briefly describe your procedure.
Paragraph 3 – Describe and explain your results and also state if your hypothesis was supported or not supported by the results. Suggest a reason why it was or was not supported.
Paragraph 4 – Explain your conclusion and application(s).

Bibliography: No less than 3 different sources. Due Nov. 23-25
1. ______________________________________________________
2. ______________________________________________________
3. ______________________________________________________
4. ______________________________________________________
Data/Graph

Drawing of my Experiment
Science Project Ideas

Animal Studies
What foods do mealworms prefer?
How do mealworms react to various surfaces?

Human Studies
Does exercise affect heart rate?
Which group of students in class has the greatest lung capacity?

Plant Studies
Do plant roots always grow downward?
Does it matter in which direction seeds are planted?
What percentage of corn seeds in a package will germinate?
Can plants grow without soil?
Do plants grow bigger in soil or water?
Do different types of soil hold different amounts of water?
Does the color of light affect plant growth?
How does light direction affect plant growth?
How does chlorine effect plant growth?
Does temperature affect plant growth?
Do different kinds of apples have the same number of seeds?
Do living plants give off moisture?
Which cheese grows mold the fastest?
What factors affect the growth of bread mold?
Do lima bean plants grow faster than green bean plants?
Will plants grow better if they listen to music or are talked to?
Which seeds germinate the fastest: radish, tomato, or bean?

Chemistry
What kind of juice cleans pennies best? (K-1)
Does warm or cold water freeze faster? (K-1)
How long will it take a drop of food dye to color a glass of still water?
Which materials absorb the most water?
Which materials keep ice cubes from melting for the longest time?
Does baking soda lower water temperature?
Does the color of water affect its evaporation?
Will water with salt evaporate faster than water without salt? (K-1)
Physical Science
Can the design of a paper airplane make it fly farther? (K-1)
Do all objects fall to the ground at the same speed?
What kind of things do magnets attract? (K-1)
Can things be identified by just their smell? (K-3)
Which metal conducts heat best?
Does viscosity of a liquid affect its boiling point?
What materials provide the best insulation?
Does the color of a material affect its absorption of heat?

Consumer Testing
What brand of raisin cereal has the most raisins? (K-1)
With which type of battery do toys run the longest?
Which laundry detergent works the best?
Which popcorn brand pops the most kernels? (K-2)
Which diaper brand holds the most moisture?
Which plastic trash bag is the strongest?

Machines and Movement
Which size marble/can will roll faster (farther)?
How much salt does it take to float an egg?
Which dish soap makes the most bubbles? (K-1)
Do ants like cheese or sugar better?
Can you tell what something is just by touching it? (K-1)
Does a bath take less water than a shower?
Do bigger seeds produce bigger plants?
What materials dissolve in water?
What color of birdseed do birds like best?
Will bananas brown faster on the counter or in the refrigerator? (K-1)
Does a ball roll farther on the grass or dirt?
Which paper towel is the strongest? (K-1)
Does exercise affect heart rate?
How much of an apple is water?
Does the shape of a kite affect its flight?
Does sugar prolong the life of cut flowers?
Will more air inside a basketball make it bounce higher?
How much can a caterpillar eat in one day?
Do suction cups stick equally well to different surfaces?
Which kind of cleaner remove ink stains best? (K-1)
Does a baseball go farther when hit by a wood or metal bat?
What get warmer - sand or dirt?
Does heart rate increase with increasing sound volume?
Do boys or girls have a higher resting heart rate?
Do sugar crystals grow faster in tap water or distilled water?
Which liquid dissolves pills faster? (K-1)
Does the way food is stored affect it coldness?
Do vitamins affect the germination of seeds?
Does magnetism affect plant growth?

Useful Websites
Science News for Kids
http://www.sciencenewsforkids.org/articles/ScienceFairZone.asp
Dragonfly (PBS Science)
http://pbskids.org/dragonflytv/scifair/
Cyber-Fair - A resource for students by students
http://www.isd77.k12.mn.us/resources/cf/steps.html
The Science Club. Kid’s Science Fair projects.
http://scienceclub.org/kidproj1.htm
Kids Online Resource
http://www.kidsolr.com/science/page2.html
Science Fair Idea Exchange
http://amasci.com/scifair/bio.html
Science Fair Projects with fast growing plants
http://www.fastplants.org
Science Buddies
http://www.sciencebuddies.org/mentoring/
http://www.sciencebuddies.org/mentoring/science-fairs.shtml
The Internet Public Library
http://www.ipl.org/youth/projectguide/
Science Fair Topics
www.accessexcellence.org/RC/scifair.html
All Science Fair Projects
http://www.all-science-fair-projects.com
The Ultimate Science Fair Resource
http://www.scifair.org
4th and 5th Grade Science Project 2009 – You are the Scientist!

Encourage your child to choose a topic that is appropriate and interesting for your child’s level and comprehension. Students are expected to give oral presentations of their projects in their classrooms and should be able to answer questions about their project. Attached are Science Fair Project ideas that can be used as possible choices, but the use of the Internet will provide you with a wider range of ideas and choices. All project ideas require prior approval by the Science classroom teacher.

Science Fair Guidelines

Volcanoes, Organisms, Chemicals, or Flammable substances are not permitted, and any project involving animals or human subjects requires prior approval from your child’s teacher. Take photographs of the substances that you used to display on your board. Remember no identifiable humans or their parts may be displayed in photos. Procedures that may be harmful to animals are also not permitted. Only battery-generated electricity is permitted.

Students are to follow the Scientific Method for their experiment. Projects without the Scientific Method will not be judged. Your child’s name should not be written anywhere on the front, but write their name, teacher’s name and grade on the back of the science board.

Judges will be looking for:

- Scientific Method and approach
- Creativity and originality
- Organization of materials and information
- Overall appearance and neatness

All projects must include a Student Log Book, which includes all the steps for the Scientific Method. A record of happenings, experiences, and reflections should be kept on a regular basis. Do not copy reports directly from the Internet. This should be your own writing.

(PREFERABLY TYPED) or neatly written by the student)

Parents may assist students by taking their child to the library for reference work, searching the Internet, proofreading, typing, and plenty of encouragement. Your child must conduct the actual experiment. Remember they are the scientists! Let the experimenting BEGIN!!!

The School Store will be selling Science Boards while they last.

DAILY STORE HOURS
7:45am to 8:10am
October 29th, 2009

Dear Parents,

Our ability to solve present and future problems depends on our ability to question the world in new and creative ways. With our knowledge of the world growing so rapidly, we must move away from having our children simply memorize facts. Instead, we must emphasize the thinking skills that create organization for new facts as they emerge.

For students here at Redland Elementary what better opportunity for your child to develop these skills than to participate in our school’s Annual Science Fair! The thinking skills a child develops while doing a science project are the basic skills that will be used throughout life – to sense and clarify problems that exist and to find creative solutions to those problems.

It is mandatory that each student in grades 4 and 5 take part in this year’s Science Fair. The Science Fair will be held on Thursday, December 3, 2009 from 6 – 7:30 pm. Students should select projects that match their interests and abilities. Science Projects are due Monday, November 30th, 2009 in the classroom. Attached, is a Science Fair Project Packet to be utilized by your child. Be creative, be investigative, and most importantly have fun while learning.

We are looking forward to GREAT PROJECTS!

Sincerely,

Mrs. De Vroedt, Mrs. Leach, Mrs. Keller,
Mrs. Fuentecilla, Mrs. Stewart, Mrs. Ahmad
Mrs. Giourgas, and Mrs. Bryan

The Science Fair Committee 2009-2010

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Science Fair

I have reviewed the Science Fair information and due dates with my child and we understand the requirements for a successful Science Fair Project. I understand that the attached materials are to be used to support in planning and completing the Science Fair Project. I will keep this information at home for reference.

Parent Signature: ___________________________________ Date: ___________

Student Signature: ___________________________________ Date: ___________

**Please sign and detach this form. Return to your child’s Science classroom teacher.**
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