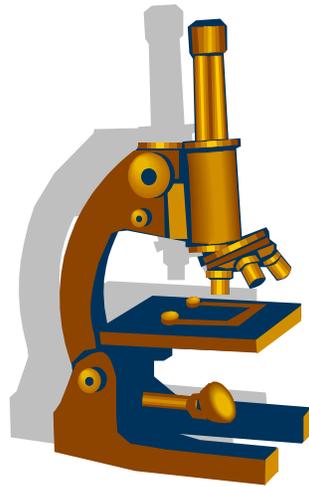


HPE
21st Annual Elementary Science Fair
for
3rd through 5th Grade



April 12, 2017
6 – 8 PM
Holland Patent Elementary School

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February 3, 2017

Dear Families,

Holland Patent Elementary and the PTA are once again sponsoring a Family Science Fair this year. The third through fifth Grade classes will be the participants this year. This event will involve families working together to produce a science project or invention which will be shared with the HPE community on Thursday, April 12, from 6:00 to 8:00 PM at the school. Set up will be at 5:30.

The purposes of the Science Fair are to promote the student's natural curiosity about the world around him or her, to encourage families to work together to solve problems, to develop thinking skills, to increase awareness of science and scientific principles, and to gain self-confidence by sharing and displaying projects.

Some projects may be real experiences, others may be demonstrations, and still others may be inventions which solve a specific problem. We hope this booklet will help you in getting started.

A few simple rules for the Science Fair will help in the planning and development of each project:

1. The fair entry should be carefully planned.
2. Reading and research should be part of the project.
3. A log or journal should be kept if appropriate.
4. Include a display board no larger than 24"x36" with the project title and scientific information.
5. **Return entry forms to school by April 3rd.**
6. Projects should avoid topics that involve: Bacterial or viral cultures, experiments that may cause harm to animals, high voltage, highly flammable material, flames poisons or explosives.

All students in the Science Fair will receive certificates in recognition of their participation. We do not plan to judge or award prizes. We hope that families will enjoy participating and sharing with others in the HP community.

Sincerely,
Heidi Knopp, Elem. Science Coordinator
Sarah Vergis, Principal

HOLLAND PATENT ELEMENTARY SCHOOL

2017 FAMILY SCIENCE FAIR

ENTRY FORM

Student Name _____

Grade and Teacher

Parents' Names _____

Other family/persons involved

Title of Science Fair Project

How will you be displaying your project?

Will you need more than 2'x 3' of space _____ **How much?** _____

Will you need an electrical outlet? _____

Parent/Guardian Signature _____ **Date** _____

PLEASE RETURN BY April 3rd!

Types of Science Projects:

There are two types of science projects: Models and Experiments. Here is the difference between the two:

Model, Display or Collection Choice for the Science Fair:

Shows how something works in the real world, but doesn't really test anything.

Examples of display or collection projects can be:
"Types of Dinosaurs", "Types of Rocks", etc.

Examples of models might be: "The Solar System", "How an Electric Motor Works", etc.

An Experiment Choice for the Science Fair:

Lots of information is given, but it also has a project that shows testing being done and the gathering of data.

Examples of experiments can be:
"The Effects of Detergent on the Growth of Plants", "Which Paper Towel is More Absorbent" or "What Structure can Withstand the Most Amount of Weight"
You can tell you have an experiment if you are testing something several times and changing a variable to see what happens.

Use the Scientific Method!!



→Step 1 - Choose a Topic

Think of an idea you want to test and that interests you.
Choose a topic you can both learn about and investigate.



Example: I get grass stains on the knees of my pants when I play soccer. Sometimes the stains wash out and sometimes they don't. I wonder if different laundry detergents work better on grass stains.

→Step 2 - State the Problem

Write down a statement of the problem you plan to investigate in the form of a question.

Example: Which laundry detergent works better on grass stains?

→Step 3 - Research

Read and study as much as you can about your topic.

Learn as much as you can from others—parents, teachers, librarians, and community people.

Make notes.



4.

→Step 4 - Form a Hypothesis

Write down what you think will happen in your experiment, based on your research.



Example: In your research, you found that laundry detergents with more phosphates are supposed to clean better. So your hypothesis might be: The detergent with the most phosphates will get grass stains out the best.

→Step 5 - Putting It Together

Organize and gather equipment and supplies needed for your project.

Perform your experiment.

Make notes and observe what happens.

Conclusion.

Was your hypothesis correct? (Very often a hypothesis is wrong
– that's an important part of science!)

What did you learn or discover by doing this experiment?



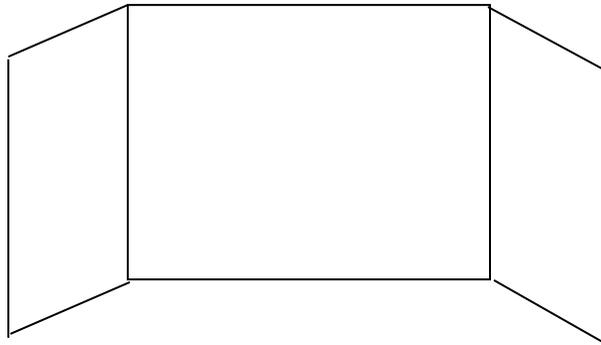
5.

→Step 6 - Display Your Project

Include:

- Title
- Problem or Question
- Hypothesis
- Procedures or Methods
- Equipment Used
- Experiment
- Results and Conclusions

Use a Display Board to present your work.



→Step 7 - Your Report(Optional) or
Use Info to Explain your Project

- Title Page: a. Title of Project
 b. Name/Grade
- Report: a. Problem you are investigating
 b. Hypothesis
 c. Procedure
 d. Material list
 e. Data or information gathered
- Summary or
Conclusion: a. What did you learn by doing the experiment?
 b. Were the results what you expected?
 c. Are there any practical applications for what you found
 in your experiment?

→Step 8 - At the Science Fair

Have fun at the Science Fair!!

- Be able to tell people about your project.
- The more you know about your project the more interesting your project will be to others.
- Stand to one side of your display as you discuss your project.
- Introduce yourself to the people asking about your project.
- Don't Be Nervous!! This is for Fun!



PROGRESS CHECKLIST



Date Project Due: April 12, 2017

Check When Completed

(If you're choosing a model or display check only those that apply)

- Choose a topic that interests you.
- Write out the research question.
- Research the subject (Keep notes and references for you report).
- Make hypothesis about what you think will happen.
- Write our your procedure, and identify the dependent variable (the thing you plan to change).
- Organize everything you plan to do and gather materials needed.
- Perform your experiment.
- Record your observations.
- See if your original hypothesis was correct.
- What did you learn or find out by doing this experiment?
- Begin construction of your display
- Prepare a 2-3 minute oral report.
- Project is complete and ready for the science fair!