

Stafford Primary School Newsletter

WEST LINN-WILSONVILLE SCHOOL DISTRICT
19875 SW STAFFORD RD., WEST LINN, OREGON 97068
(503) 673-7150 - www.stafford.wlww.k12.or.us



January 14, 2016

Pennies for Patients

Mr. Moore's fourth grade class is coordinating this year's Pennies for Patients fundraiser. The fundraiser will run through next Friday, January 22nd. Already during the first week, **Stafford has raised over \$2000!** The money collected goes to the Leukemia and Lymphoma Society, where it is used to further research into treatments, and direct aid to sick children and their families. Encourage your children to go through their pocket change and make a donation today. The class who raises the most money wins an Olive Garden lunch. Thank you for supporting this wonderful cause.



CONGRATULATIONS TO OUR 5TH GRADE ROBOTICS TEAM!!

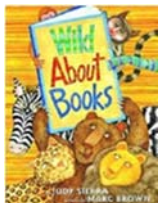
Melinda Lin, Katelyn LeBlanc, Lily Pruzek, Anika Sukumar and Cynthia Yang took 1st place for their robot in the Oregon State Robotics Competition in Hillsboro this past Saturday! They took 4th place in the Champions Award for their overall performance in all categories. They also received the Global Innovation Award for their Enviro Styro System idea and have been selected to represent Oregon in the upcoming Global Competition! We are so proud of them!!



DARLING'S DETAILS

Dear Stafford Families,

I hope you all had a wonderful and relaxing winter break...2016 is starting off amazing and we have SO many exciting things to share with you AND we have our library back. Stafford Primary is very lucky to have award-winning author, Judy Sierra visit our library next month! She will present to K-2 and read a few of her books and share how she became a writer and where she gets her ideas from. Her books are fabulous and we have multiple copies available in the library to check out. You can read more about her at www.judysierra.net



The Stafford Science Fair will be on **February 18th**. Attached to the newsletter you will find all of the information you will need, including a time-line, permission slip, and great web-resources to inspire your child's science fair project. We encourage ALL students to participate from K-5th grade. **The last page of the packet needs to be completed and turned in no later than Friday, Jan. 15th**



Battles are starting soon! Battle dates have not yet been determined, but we will let you know ASAP. The winner will represent Stafford at the regional battle at Boones Ferry Primary on March 12th. We will hold mock battles in the library to prepare kids during lunches. If you would like to help your child practice at home, you can find great questions on the Cedar Mill and Newburg library websites, or on the OBOB website.



Stafford is very lucky to have our own **3D printer** in the library! You can help your child design an image to print on www.tinkercad.com. This is very a kid-friendly website and has excellent tutorials. Save your design as an .STL file and email it to darlingc@wlwv.k12.or.us then I can print it for your student!

Happy New Year and have a fantastic week of reading!

Celeste Darling

Teacher-Librarian
Stafford Primary School

Messages From The Office

KINDERGARTEN REGISTRATION 2016-17

We are now accepting registration for Full day Kindergarten for the upcoming school year. Please let your friends and neighbors know that we have registration packets at the school and also online for their convenience.

First Grade Hearing Screenings

On **Wednesday, January 20th**, the West Linn-Wilsonville Health Services Team will be conducting **hearing screenings on all first graders** at Stafford Primary. If you do not want to have your first graders hearing screened, please send a note to your classroom teacher on the day of the screening requesting to opt your child out of the hearing screening.



WINTER WEATHER



Snow Routes are available on the district website. School closure information will be available on the website as well. Please sign up for the flash alerts so you are informed of changes that can take place quickly.

ENRICHMENT CLASSES

Winter Enrichment classes begin Tuesday, January 19th. We are excited to share a variety of classes with students this session. Please contact Mi Lynn Crollard at 503-673-7150 or crollarm@wlwv.k12.or.us if you have any questions.

CHECK OUT THE COMMUNITY BULLETIN BOARD!

Community Services are no longer approving flyers and sending them to the schools for posting. Instead they are providing a Virtual Community Bulletin Board! If you have a flier, contact the Community Services, and all approved fliers will be posted on the website by category.

Check this out! <http://www.bond.wlww.k12.or.us/cbb/>

Contact Cindy Hepting at 503 673-2996 if you have questions. Thank you!

JANUARY

- Jan. 18 **No School/Holiday**
- Jan. 19 Enrichment Classes Begin
Scrip Week
- Jan. 20 1st Grade Hearing Screening
- Jan. 22 Bingo Night - Gym 6:00 p.m.
- Jan. 29 Spirit Day

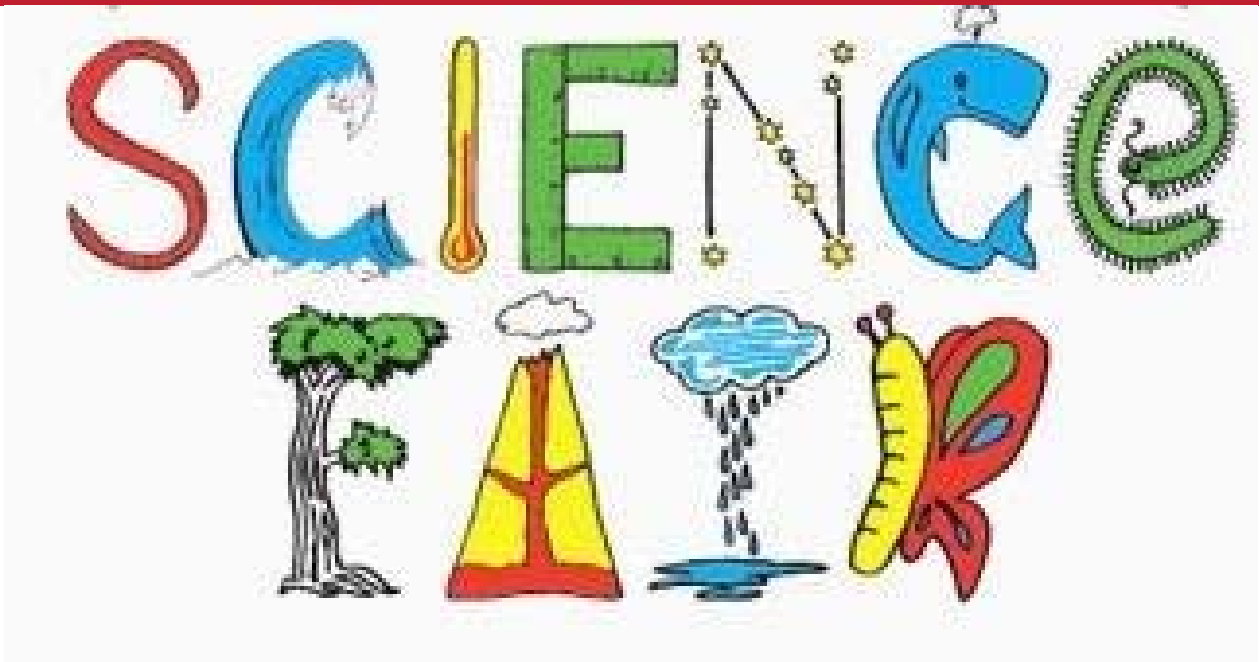
FEBRUARY

- Feb. 1 OBOB Battles Begin
Scrip Week
- Feb. 3 **Early Release 12:10 p.m.** "Professional Growth Wednesday"
- Feb. 8 OMSI NIGHT 6:00-8:00 p.m.
- Feb. 10 PTSA Meeting 9:30 a.m.
- Feb. 15 **No School/Holiday**
Scrip Week
- Feb. 18 Science Fair
- Feb. 26 Spirit Day
- Feb. 25 Gr K-1 Author Visit - Judy Sierra
- Feb. 26 CREST - Jane Goodall Science Symposium - 5:30 p.m. at WLHS
- Feb. 29 "Joust" - Schroeder 5th Grade Musical 7:00 p.m.

MARCH

- March 1 "Joust" - Zimmer 5th Grade Musical 7:00 p.m.
- March 2 PTSA Meeting 9:30 a.m.
"Joust" - Bacidi 5th Grade Musical 7:00 p.m.
- March 3 1st Grade Penguin Night 5:00 p.m.
"Joust" - Schecter 5th Grade Musical 7:00 p.m.
- March 4 Pancake Breakfast - MPR 7:00 a.m.
- March 8 Garden Clean-Up
- March 10 Gr 2-5 Author Visit - Graham Salisbury
- March 11 Spirit Day
- March 13 **Daylight Savings begins - Spring forward 1 hour**
- March 15-16 Evening Conferences
- March 16 **Early Release 12:10 p.m.** "Professional Growth Wednesday"
- March 17-18 **No School** - Conferences
- March 19-27 **No School** - Spring Break

Stafford 2016



Thursday, February 18th

Parent Information can be downloaded from the Stafford newsletter or website.

If your child would like to participate, please submit the last page of the packet to the classroom teacher for approval no later than **January 15th**.

Thank you and we hope to see your project at the Stafford Science Fair this year!

Stafford Primary

Science Fair 2016

You are invited to participate in the 2016 Stafford Primary School Science Fair presented on **Thursday, February 18th**. Science Fair projects will be completed at home, individually, in pairs, or in groups (of 3 students or fewer). Please fill out the Exhibitor Entry Form and return it to your teacher. Each child will receive a Project Review and a Certificate of Participation for their project.

Recommended Timeline for Science Fair Projects

January 8 th -	<u>Last Page of this Packet Due to Classroom Teacher!</u>
January 8 th -	Testable Questions
January 8 th -	Background Research and Hypothesis
January 15 th -	Materials and Procedures
January 22 nd -	Data Collection
January 29 th -	Conducting Experiments
February 5 th -	Gathering Evidence from Data
February 12 th -	Citing Sources & Project Board Design
February 18 th -	All Projects Complete!

Science Fair Expectations

A Science Fair project should:

- Be FUN!
- Demonstrate an understanding of the science inquiry process
- Be done carefully and neatly
- Showcase student work
- Be displayed on a tri-fold display board

Please Remember

Project boards are not allowed on busses. Please drop off and pick up boards on February 18th.

Event Schedule

7:15am- 7:50am Project Set Up
8:00am- 2:00pm Project Reviews & Viewing
6- 7:30pm- Science Fair Evening Viewing

2016 SCIENCE FAIR PROJECT CHECKLIST

Step 1: Testable Question

Ask a testable question based on your own observations in an area of science such as Physical Science, Life Science, Earth Science, etc. "How does a change/difference in _____ (variable) affect _____ (data)?"

Step 2: Research

Choose your topic. List what you already know about your topic. Learn more from books at the library or on the Internet. Ask an adult to help you research your topic.

Step 3: Hypothesis

What are the expected outcomes of your experiment? "If _____, then _____."

Step 4: Materials

List the supplies you need to complete the experiment and gather them with help from your teacher and/or parent. Think about your variables, your controls, and your set-up requirements.

Step 5: Procedure

Write a step-by-step procedure to test your hypothesis. Identify the variable you will change and the controls you will keep the same. Identify the data you will measure or observe each time you change the variable. Identify factors that could affect the data, and make sure those factors will not change during the experiment.

Step 6: Data Collection & Conducting Experiments

Prepare a table to record the data for your variable. Collect the data. Repeat the experiment to verify your results. Show the data in a way that is easy to understand using a table, chart, or graph. You may also use photos or drawings to illustrate what happened. Describe the data in your own words. Do you see a pattern? Did anything unexpected happen?

Step 7: Gathering Evidence from Data

Was your hypothesis correct (supported or disputed)? Why or why not? Do your results suggest a new question?

Step 8: Cite Sources & Project Board Design

Create a display to share your results with the school community at the Science Fair on April 23rd.

RULES FOR SCIENCE FAIR PROJECTS

OVERVIEW

- **Question:** Select a testable question to be answered by your experiment.
- **Research:** Research your topic.
- **Hypothesis:** How do you think the variable you will change relates to the data you will collect?
- **Materials:** Gather the supplies you will need. Think about controls and a variable.
- **Procedure:** Perform the experiment.
- **Data:** Gather data and make observations.
- **Conclusion:** Compare the actual results to your hypothesis. Draw conclusions.
- **Communicate Your Results:** Prepare your display board with the process, details, and/or results (See DISPLAYING YOUR SCIENCE PROJECT)

ABOUT YOUR PROJECT

- Focus on a specific area of science such as Physical Science, Life Science, Earth Science, etc.
- Use your own ideas and work
- Be creative, neat, and work carefully
- Demonstrate the scientific method (See TIMELINE for descriptions)

ABOUT YOUR DISPLAY

- Include a project display board (See DISPLAYING YOUR SCIENCE PROJECT)
- Include your name and/or the names of those in your group on the provided sticker. Place the sticker on the lower left corner of your board.
- Include your question and hypothesis
- Limit your display to a 1.5ft x 2.5ft table area

WHAT YOUR PROJECT MAY NOT INCLUDE

- Purchased science or math kits
- Expensive or non-replaceable personal property
- Balloons
- Live or dead organisms
- Human or animal foods
- Chemicals that are flammable or otherwise dangerous
- Glass
- Sharp items such as syringes, needles, or knives
- Matches, flame, or any apparatus producing excessive heat
- Batteries that supply power for long periods of time
- Parts too fragile to handle
- Electricity passing through non-insulated wire
- Anything that must be plugged into an outlet
- Equipment or device that may be hazardous to the public
- Sharp items such as syringes, needles, or knives

GETTING STARTED

Here are some typical questions to help get you started on developing your Science Fair project. Choose one of these topics and make it your own by getting more specific or use these questions as a guide to developing your own project idea.

- How does the type of water affect freezing time?
- How does the type of water affect boiling time?
- How does the type of liquid (viscosity) affect buoyancy?
- How does the type of cup affect temperature loss?
- How does color affect heat absorption in sunlight?
- How does soil temperature affect the time it takes a bean seed to germinate?
- How does the brand of AA battery affect battery lifespan?
- How does the distance from a light affect the size of plastic mini-figure's shadow?
- How does the angle of a ramp affect the distance a toy car will roll?
- How does the type of ball affect bounce height?
- How does magnetic temperature affect the strength of attraction?
- How does the type of ball affect falling speed?
- How does the string length affect the swing of a pendulum?

****We are trying to move students away from the traditional baking soda-vinegar volcano demonstrations, Mentos-soda explosions, growing gummy bears, etc.** As an alternative, please encourage your child to think about their target audience. Why will this experiment be important? In what real-world situation or context could this data be useful?

Need an Idea?

Making observations or asking questions in a Science Notebook is a great place to start. Observations can be made at grocery stores, parks, shopping malls, restaurants... even in your own home!

Next Generation Science Standards Grade Level Specific Topics to Consider

<http://www.nextgenscience.org/search-standards>

Kindergarten	Forces: Pushes & Pulls, Plants & Animals (Basic Needs & Habitats), Weather & Climate
First Grade	Light & Sound Waves, Plants & Animals (Parents/Offspring, Structure & Function of External Parts for Meeting Basic Needs), Patterns of Sun, Moon, Stars, & Daylight related to Time of Year
Second Grade	Properties of Matter, Interdependence in Ecosystems (Plant Growth, Seed Dispersal, Diversity of Life in Ecosystems), Fast & Slow Processes that Shape the Earth
Third Grade	Forces & Interactions (including magnetism), Interdependence in Ecosystems (fossils, link between plants/animals/habitat, impacts of environmental changes), Inheritance and Variation of Traits
Fourth Grade	Energy (speed, transfer of sound/light/heat/electrical currents), Waves (wavelength & amplitude, transfer of info. over a distance), Animals (internal & external survival features, use of senses to process information & survive), Rock Formation/Weathering/Erosion
Fifth Grade	Properties of Matter (particles & conservations of matter), Matter & Energy in Ecosystems, Earth's Systems (geosphere, biosphere hydrosphere, atmosphere), Space Systems (Stars & Solar System)

HOW TO BEGIN YOUR EXPERIMENT

Think of a good question based on your own observations! Revise the question until you can form a hypothesis you can test using the SCIENTIFIC METHOD!

An Example for Children:

You like to play ball outside in winter. You wonder if a ball bounces higher when it is cold. You ask, "How does temperature affect the height of the ball's bounce?" That is your **question**. You guess the answer is "A cold ball will bounce the highest." That is your **hypothesis**.

To experiment, you drop a ball and measure how high it rises on the first bounce. Your **variable** will be the temperature of the ball. Your **data** will be the bounce height. You will keep all other factors that you think might affect bounce height (the ball, height, floor) the same for each drop. You repeat the experiment several times to be sure of the results.

LIMITING THE SCOPE OF A PROJECT

These sample questions show how to revise a question to **limit the scope of the experiment for success** using the scientific inquiry method. Choose only 2 variables to test.

- How does the type of water (salt or fresh water) affect the time it takes to freeze?
- How does the type of water (salt or fresh water) affect the time it takes to boil?
- How does the temperature of liquid (hot tea or iced tea) affect the time it takes a sugar cube to dissolve?
- How does the type of cup (paper or ceramic) affect heat loss of hot beverage?
- How do clothing colors (white or black) affect the amount of heat absorbed in sunlight?

HELPFUL TIPS FOR PARENTS

- To simplify our language for children, **variable** refers to one aspect of the experiment will change; **control** refers to all other aspects of the experiment you will keep the same.
- The **question should be simple, but it should not be answered by a simple yes or no**. “How does temperature affect the height of a ball’s bounce?” suggests a better experiment with several values for the variable than “Does temperature affect the bounce of a ball?” However, for younger children, a specific comparison that limits the variable to two values is appropriate: “Which bounces higher, a cold ball or a warm ball?”
- The **question should not be answered by a survey** of the personal opinions or preferences of family, friends, or classmates. Experiments using human subjects will be screened for safety and consent. Survey data may be used as part of the background research about a topic.
- The **hypothesis does not have to be proven correct** for the experiment to be a success.
- The **variable does not have to affect the data in expected ways** for the experiment to be a success.
- The **experiment should have only one variable** that changes.
- The **experiment should be practical and repeatable**. Your child should repeat the experiment several times to compare data.
- The **experiment should not be a simple demonstration**. Mixing baking soda and vinegar is a fun demonstration of a chemical reaction, but not a science inquiry unless the possible cause and effect relationship of vinegar or baking soda is explored. Measurement and authentic application also prove to be difficult in this context.
- **The data should be measured in units to suit your child’s mathematical skill**. Using the bounce experiment as an example, if your **five-year-old** can only count to 10, it may be best for her to mark bounce heights on a paper tape and display the tape as data. He/she can report the quantitative comparison in its simplest form: whether the cold ball bounced higher or lower than the warm ball. If your **eight-year-old** can count past 100, he can certainly measure bounce height to the nearest centimeter, but if he does not yet understand averages, it may be best for him to display bounce heights as individual vertical bars in a graph and report the general trend. If your **eleven-year-old** can calculate averages, she is ready to graph the average bounce height for each temperature.

GUIDELINES FOR DISPLAY

You must follow these guidelines to display the results of your experiment at the Science Fair.

ALL Science Fair Displays will:

- Be backed by a display board
- Fit within a 1.5'ft x 2.5'ft table area
- Include a project title at the top center
- State the question below the title.
- Include the student's name(s), grade, and teacher below the title
- Clearly label the: background, materials, procedure, data, analysis, hypothesis, and conclusion.

Displays may **NOT** include any of the following:

- Balloons
- Live or dead organisms
- Human or animal foods (Pictures are OK, but please do not bring in food)
- Hazardous or flammable chemicals (All other chemicals and liquids, including water, must be in permanently sealed, unbreakable containers.)
- Glass
- Sharp items
- Matches, flame, or any apparatus producing excessive heat
- Unshielded belts, pulleys, chains, wires, cables, or other moving parts under tension or with pinch points
- Electricity passing through non-insulated wire
- Anything that must be plugged into an outlet
- Batteries that supply power for long periods of time. (Experiments requiring a battery should connect the battery in circuit using a "momentary switch" that opens when you let go.)

It's a lot of fun to bring materials and equipment from your experiment to display on the table in front of your board. But, is it safe for a toddler to handle? When in doubt, use photographs or drawings to illustrate your experiment. The Science Fair Committee reserves the right to remove any part of a display deemed unsafe.

For more ideas and inspiration, visit:

<http://www.sciencebuddies.com>

<http://www.pbs.org/parents/zoom/science/>

<http://www.pbs.org/parents/zoom/engineering/>

<http://www.all-science-fair-projects.com/>

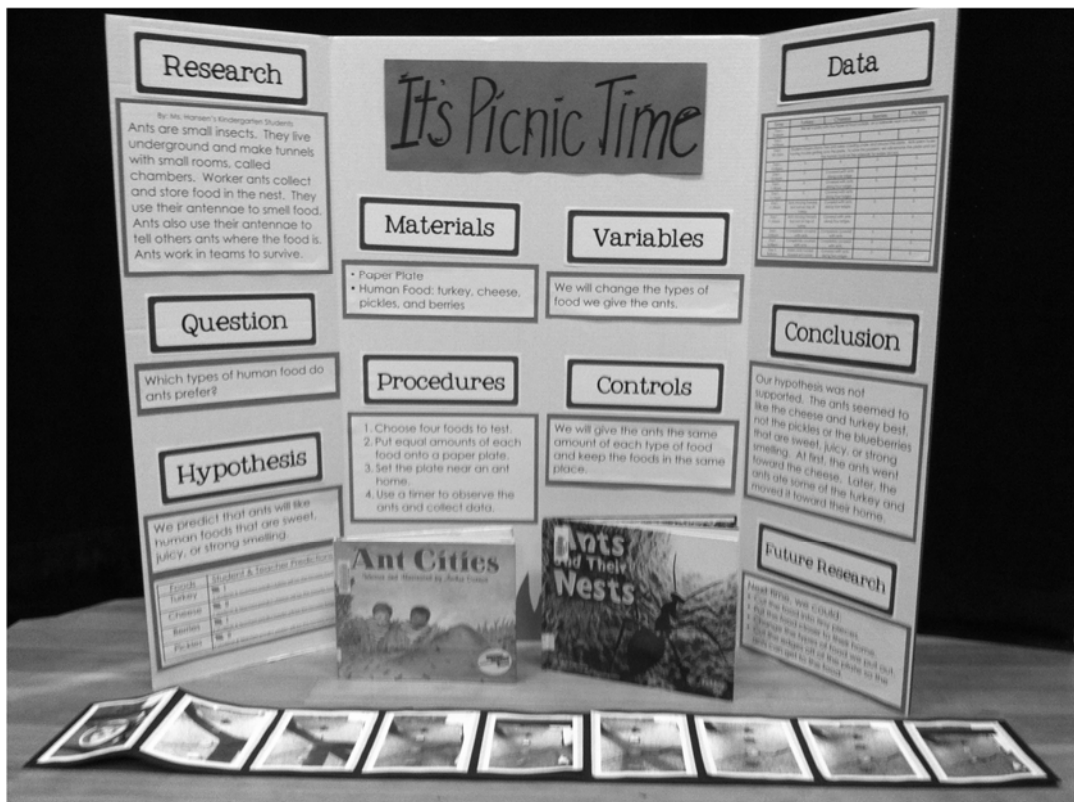
<http://www.sciencefair-projects.org/>

<http://www.sciencefairadventure.com/>

DISPLAYING YOUR SCIENCE PROJECT

Sample: Science Inquiry Project Layout

<p>Research Gather background information about your question.</p> <p>Question How will ____ affect ____?</p> <p>Hypothesis I hypothesize ____ because ____.</p> <p>Name Sticker</p>	<p>Project Title Team Member Names & Grade</p> <p>Materials List the items you will need</p> <p>Variable Only change <u>one</u> aspect of your project</p> <p>Controls Everything else you will keep the same</p> <p>Procedure 1. 2. 3. 4. 5.</p>	<p>Data Data gathered in table and/or graph form</p> <p>Conclusion What patterns or trends did you observe?</p> <p>Future Research What research could you do in the future related to your findings?</p> <p>Bibliography</p>
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Stafford Science Fair 2016

Science Inquiry Exhibitor Entry Form
(Due to Classroom Teacher by **January 8th**)

Please submit only one form per **at-home** project!

Student

Teacher Signature

Grade

Project Question (What are you asking?)

"How does a change/difference in _____ (variable) affect _____ (data)?"

Hypothesis (What do you think the answer will be?)

"I hypothesize _____".

Variable (What will you change in your experiment?)

Data (How will you measure the results?)

Example: time, distance, weight, etc.