2026

Baywood

Science Fair

Registration

Packet

Register here

Dear Students and Parents,

We are excited to announce that Baywood will be hosting its 25th annual Science Fair on **Wednesday March 25th in the MPR from 6-8pm**. All students in grades 2-5 are encouraged to participate. This event is an opportunity for students to have fun with science and get hands-on practice with the scientific method, developing fond memories and a sparked interest in science which they can carry through to the rest of their lives. Projects will be done mainly at home and brought to school the day of the fair.

As part of the Science Fair, Students will:

- Ask a question/Make an observation of the world around them (*see the attached Ideas Packet*)
- Develop a hypothesis and design an experiment to test the hypothesis
- Analyze the experimental results and review the experimental process
- Present the results on a poster board (which will be provided)
- Explain findings to guest scientists/parents

Participation Guidelines

1. 2nd-5th grade students can work in groups of one to three students.
2. **Parents may help with the project, but students should do as much of their experiments as possible. Students need to be able to explain their projects to others.**

We hope ALL eligible students will participate. The goal of the Science Fair experience is to have **FUN**! **PARENTS: Let your child set the pace--it should not be stressful for them.** This experience should leave your child with fond memories of science, as well as a pleasant time spent with a parent or other project partner.

If your child has never done a science project, please plan to attend the **Student/Parent workshop on Wednesday, January 28, 6:00-7:00pm in the MPR.**

If you have questions or would like to help with the science fair, please contact:
Ava Shoraka Campos & Rachel Matzke at sciencefair@baywoodpta.org.

Sincerely,
Your 2026 Science Fair Committee

Key Dates and Activities

Date	Event
Wednesday **January 28th** through Wednesday **February 25th**	**Registration:** Complete one entry per project, please coordinate with your partner(s)! Registration link is posted on the Science Fair page under "Programs and Activities" on the Baywood PTA website. https://baywoodpta.membershiptoolkit.com/sciencefair
Wednesday **January 28th** 6:00-7:00PM	**Student/Parent Workshop** in the **MPR**: Families (2nd – 5th grade) can get an overview of what a Science Project entails. A fun evening is planned in which students/parents will have an opportunity to become familiar with the scientific method.
Wednesday **February 25th**	**Last Day to Register!**
Wednesday **February 25th**	**Student Hypothesis Sheet Due:** The Hypothesis Worksheet can be found in this packet. Please turn into your teacher for review no later than Wednesday, February 25th.
Wednesday **March 11th**	**Preliminary Results Sheet Due:** The Preliminary Results Worksheet can be found in this packet. Please turn into your teacher for review no later than Wednesday, March 11th.
Monday **February 2nd**	**Pick-up Boards:** Starting Monday, February 2nd, students should pick-up their poster board (1 per group) from Baywood office.
Wednesday **March 25th** 7:50 am - 8:30am OR 5:00pm - 6:00pm	**Set-Up:** Bring your poster board and any display items to the MPR at Baywood**.**
Wednesday **March 25th**	**Class Tours** Morning classroom tours in the MPR to see Science Fair projects.
Wednesday **March 25th** 6:00 pm – 8:00 PM	**Science Fair** (Baywood MPR)

How to Select and Develop a Science Project

1. **Form a Question** that you can answer by conducting an experiment. Be sure to choose something that interests you and that you'll enjoy learning more about. Looking through the attached list or science books written at your grade level is a great way to get ideas.

   The problem (experiment) you choose should be in the form of a question. The question should start with the word How, What or Which. *Example: How does the amount of water given to a plant affect its growth?* Make sure that your question cannot be answered with a simple yes or no. When doing your experiment you will change something to see what happens. *Example: Give plants different amounts of water.*
2. **Develop a Hypothesis:** This is a prediction about what you think will be the result of your experiment. *Example: Less water will result in smaller plants*. Forming a hypothesis will help you plan how to carry out your experiment. Doing the experiment will prove or disprove your hypothesis.
3. **Report on Topic (OPTIONAL):** Go to the library or onto the internet and learn about your topic and experiments people have done in the past. This can be used to help design your experiment and provide important details on how to understand your experimental results.
4. **Design an Experiment:** Plan the details of your experiment. Make sure your procedures or directions are clear. Tell what you did first, second…etc. Make sure that you are observing or measuring the results of changing just one variable. A variable is a condition that you are changing in your experiment. *Example: Change only the amount of water you give plants, not the temperature or light.*
5. **Record & Display your Results:** Collect and organize the data. Be honest and carefully record the actual results you observe, even if they disagree with your hypothesis. Display the results with graphs, pictures or charts. This can be drawn by hand or using the computer.

   Example:

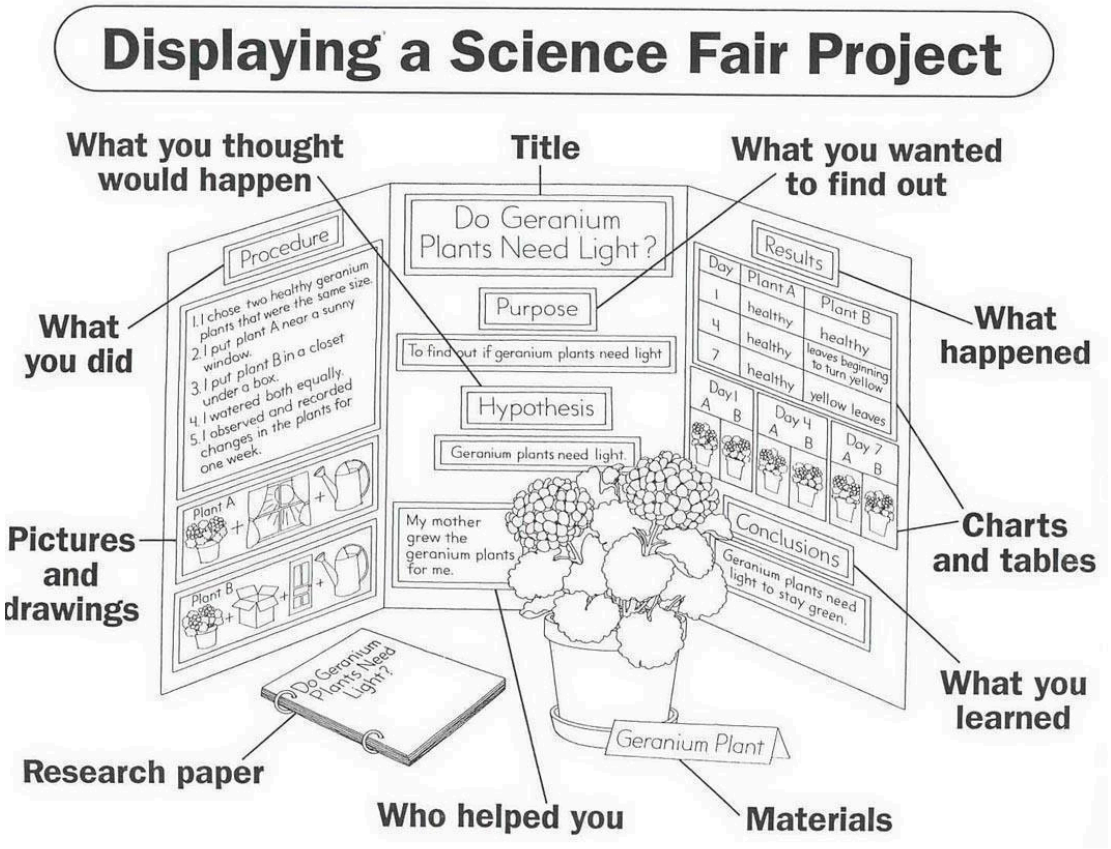
	Heavily Watered Plants	Lightly Watered Plants
Week 1 growth	4 inches	2 inches
Week 2 growth	8 inches	4 inches
Week 3 growth	12 inches	6 inches

6. **Interpret Results and Draw Conclusions:** Use the data to explain your results. Determine if your hypothesis was correct or not. Tell about errors you may have had in your experiment and tell how you might improve your investigation. Your final sentence should be a conclusion statement for your experiment. Think about your results and talk to other people about them. Try to explain how or why the results came out as they did.

   Example: My experiments show that lightly watered pea plants grow less than heavily watered pea plants. I think that it would be interesting to try three different amounts of water and see if there is a way to give too much water to the plants. I would also like to try sunflower seeds or lettuce seeds to see if the results are the same as pea seeds.

Your Science Project Board

Your project will be displayed on a self standing three panel cardboard poster that will be provided by the Science Fair Committee. The table space will be no larger than 36” wide. Your finished display board should look something like this:



Title:	The title should state the topic of your experiment.
Purpose:	The problem should be stated in question form.
Hypothesis:	This should be a sentence or two about what you think (or thought) would happen during your experiment.
Report (research) on Topic:	You may want to report on information you learned about your topic from your reading. This is not required.
Procedure:	List all the steps you followed carrying out your experiment. Explain which condition you changed.
Results:	Use what you recorded during your experiment to display your results in sentences, charts, tables, drawings, photos or graphs. Remember to report your findings accurately and honestly.
Conclusion:	Write several sentences explaining what you found out about your hypothesis

Please put students name on front of board &

Please put the student(s)’ names and grades on the back of the board!

Your Science Fair Oral Presentation

Now that all of your scientific work is done, it's time to share what you have learned! You will share your findings to a parent volunteer on the day of the Science fair. Remember, you are the expert and you had fun doing the project. But if you are a little nervous, we listed some things that you need to do during the presentation. Practice your presentation a few times at home to get comfortable with what you are going to share.

Helpful Hints:

- Introduce yourself. Point to the title of your display. Tell your audience why you chose to study this.
- State the problem that you studied (your question.) Tell them about your hypothesis (what you thought might happen.)
- Tell about your project and explain the steps you took to conduct your experiment. Be sure to mention all the materials involved and point out the pictures that you may have taken.
- Show them all the cool graphic organizers that you made, like your tables and charts. Remember to point out the labeled parts of your graph or table to show that you know what it represents.
- Be sure to explain what your data means. Make sure you can read your graphs and tables. Let them know if you were surprised by the results.
- Try to use the appropriate vocabulary by using words from the Scientific Method, like: Observation, Hypothesis, Procedure, Results, and Conclusions.
- Relax, smile, and have fun.

Science Fair Hypothesis Worksheet

(Please return to your teacher by February 25th)

Name(s):

_____

Date:

_____

Scientific Question/ Purpose:

_____

_____

_____

_____

***Hypothesis*:**

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Science Fair Preliminary Results Worksheet

(Please return to your teacher by March 20th)

Name(s): _____

Date: _____

Scientific Question/ Purpose:

_____

_____

_____

***My hypothesis was*:_____**

_____

_____

_____

***Preliminary Results (please briefly describe your findings here)*:**

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

2026

Baywood

Science Fair

Ideas Packet

Suggestions for Science Fair Experiments

To get an idea for a science fair project, observe the world around you—man-made objects and the natural world. Why are things the way they are, how do they work, and how are they affected by each other? You will probably have many questions as well as some ideas about the answers to your questions. Pick one of your questions for your science fair project.

- First, formulate the question you want to ask along with your idea (hypothesis) or ideas (hypotheses) about the answer to the question (see the many examples below).
- Devise an experiment to test your hypothesis or hypotheses. Be sure the experiment will provide data to come to a conclusion about whether your hypothesis is true or not.

If you are having trouble coming up with a question/hypothesis, there are many potential projects and tips on how to do a science fair project on websites like: www.sciencebuddies.org.

Projects should *not* include

1. Science or math kits from stores
2. Matches or flames
3. Dangerous or toxic chemicals
4. Parts too fragile to be handled
5. Uncontained messes
6. Live animals unless they are contained and can remain on display (think ants, not your dog!)

Suggestions for Science Fair Questions

Plant Studies

- Do big seeds germinate (grow) faster than small seeds?
- Do leaves composted with alternate layers of soil and leaves decompose faster than those with soil only on the top?
- Does the amount of moisture affect the rate of decomposition of composting leaves?
- Do roots of a plant always grow downward?
- Can plants grow without soil?
- Does temperature affect the growth of plants?
- Do different kinds of apples have the same number of seeds?
- Do bigger seeds produce bigger plants?
- Does a plant grow bigger if watered with milk, coke, or water?
- Does sugar or bleach prolong the life of cut flowers?

Human Studies

- Does being able to see help people keep their balance?
- How much is taste affected by sight and smell? Does it depend on the type of taste?
- Can a person judge distance using just one eye?
- How far can a person lean without falling?
- How much air can be forced out of the lungs?
- How fast can your fingers react to what your eyes see?
- Can you run faster after eating a healthy snack or eating chips and candy?
- Does noise affect a person's concentration or short-term memory?
- Can body language help determine if a person is lying?
- How does breathing affect your heart rate?
- Do all people have the same normal body temperature?
- How accurately can you tell the temperature of an object by touch?
- Are more people right or left hand/foot dominant?
- Do women or men have a better sense of smell?

Animal Studies/Adaptation

- Do ants like cheese or sugar better?
- What color of birdseed do birds like best?
- Do mint leaves or other materials repel ants?
- Which travels faster-a snail or a worm?
- On which surface can a snail move faster-dirt or cement?
- Do different kinds of caterpillars eat different amounts of food?
- What is the effect of temperature on the activity of bugs (mealworms, crickets)?
- How do animals keep warm?

Computer Science/Mathematics

- Does using wildcards (*) to conduct a web search yield more relevant results?
- How does font style and number of letters impact the size of a word processing file?
- Does estimating work better when estimating small or large populations, e.g. beans in a jar?
- Are people more accurate at measuring things that are small, medium or large?
- What happens when a test with two equally-likely outcomes is performed only a small number of times, e.g getting “heads” in a coin toss

Electricity and Magnetism

- Is a magnet stronger when it is warm rather than cold?
- Does more dust collect on glass than on plastic? On smooth metal or wood?
- Which conducts electricity best, copper, aluminum, or steel wire?
- What kind of things do magnets attract?
- What kinds of magnets are the strongest (shape, size)?
- What types of materials work best for making static electricity?
- What kinds of fruits make the best batteries?

Physical Sciences

- Do big waves in water travel faster than small waves?
- Will a length of wood with a rectangular cross section, such as a 2x4 or 1x4, support more weight if the larger dimension is facing upward? If so, how much more?
- Can you the design of a paper airplane make it fly farther?
- Do wheels reduce friction?
- Does a ball roll farther on grass or dirt?
- Do all objects fall to the ground at the same speed?
- What shape of sail will make a sailboat go fastest?
- Is there a mechanical advantage to using a ramp to raise objects?
- What size and shape of frisbee is best for long distance throwing?
- Does temperature affect the strength of rubber bands?
- Will a ball bounce higher if it is dropped at a greater distance from the floor?
- Does the density of a ball affect how far you can throw it?

Light and Color

- With a pinhole camera, how and why does the size of the pinhole affect the image?
- Do some colors of fabric transmit more heat from the sun than others?
- Do incandescent and fluorescent light produce the same kind of light (heat)?
- Do some colors absorb more sunlight than others?
- What will happen if you place construction paper in the sun?
- What happens when you mix red, green and blue light together?
- What happens when you mix red, green and blue paint together?
- What are the effects of different lenses on light beams?
- What factors affect light reflection? Refraction?
- Which colors show up best in the dark?

- Does light travel at different speeds through different materials?
- Does light intensity change with distance?

Physical/Chemical Properties

- Does ink or food color spread faster in water, salt water, sugar water, or milk? Does temperature matter?
- Is the ability of an egg to float in water affected by the salt content of the water?
- What effect does temperature have on the rate of a chemical reaction? (e.g. the browning of an apple)
- Does the composition of a soap solution have an effect on its surface tension?
- What affects crystal formation?
- Do sugar crystals grow faster in tap water or distilled water?
- How do different chemicals change the properties of slime (acid, baking soda, salt, etc)

Solids, liquids (includes water) and gases

- Does water evaporate faster in a windy location than in a sheltered location with the same air temperature?
- Is a balloon filled with cold air heavier than one filled with hot air? Does the amount of hot air in a balloon affect the way in which it floats?
- How does the addition of salt or alcohol affect the melting and boiling temperature of water? Does the amount of salt or alcohol matter?
- Does the dirt in muddy water settle faster if the water is salty?
- Are our local waters acidic? Is the rain in your neighborhood more or less acidic than your tap water?
- Does warm water freeze (or boil) faster than cool water?
- Will water with salt evaporate faster than water without salt?
- Does an ice cube melt faster in air or water?
- Does shape affect how fast an ice cube will melt?
- Which materials absorb the most water?
- Which dissolves better in water - salt or baking soda?
- What common liquids are acid, base or neutral?

Earth Science

- How much warmer is it in the sun than in the shade? Does it matter if it's windy?
- What types of particles are in the air? Are they different on windy days?
- Is the difference between the high and low temperature greater on clear days than on cloudy or rainy days?
- How does the slope of the land affect erosion?
- Do different types of soil hold different amounts of water?
- What kinds of soil/rocks/minerals can I find in my backyard?
- How hard are various types of rocks and minerals?

Sound

- Does sound travel faster through still air when it is clear than when it is foggy or raining?
- Does a tin can telephone work better with a metal wire than with a cotton string?
- Is sound transmitted differently through solids versus air? Do different sounds behave differently?
- Can you tell where sound comes from when you are blindfolded?
- Does the length of a vibrating object affect its sound?
- Does the amount of water in a glass affect its sound when hit by an object?
- What materials provide the best sound insulation?
- How good are people at hearing one voice in a crowd?
- How far can sound be transmitted through a tube?

Food Science

- Does the beaten white of a fresh egg have more volume than the beaten white of an old egg?
- Does orange juice contain more sugar than lemon juice? Grapefruit juice? Coke?
- Does yeast grow faster in water with sugar added, in plain water, or in water with a combination of sugar and salt?
- Does yeast grow fastest at 40, 60, 80 or 120 degrees Fahrenheit?
- Are popcorn kernels coated with oil larger when popped than those not coated with oil? Does the result depend on the method of popping the corn?
- Does dampened lettuce keep longer than dry lettuce when stored in a plastic bag in the refrigerator?
- Will bananas brown faster on the counter or in the refrigerator?
- Which cheese grows mold the fastest?
- What factors affect the growth of bread mold?
- What effect do different fruits have on JELLO?
- Does freezing candy bars or other snack food make them more brittle (clean break)?
- How strong is spaghetti?

Comparative/Consumer Studies

- What kind of juice cleans pennies best?
- Which dish soap makes the most bubbles?
- Which brand of disposable diaper absorbs the most liquid?
- Which brand of plastic wrap is best at keeping moisture inside a container?
- Do hand soaps and sanitizers prevent the growth of bread mold?