Experiment

Collection

Engineering Project

Science Fair and STEM Night

Project Drop Off
Thursday, February 19, 2026
8:30-9:00 AM in the Gym
Students will speak with a judge during the day

STEM Night and Project Pick Up
Thursday, February 19, 2026
6:00-7:00 PM in the Gym
Science Demos and Activities
Students will take their projects home

Questions? Contact broadmorsciencefair@gmail.com

Engineering Project: Build something to solve a problem

Ideas:

- Rubber band car
- Electric generator with a magnet and a copper coil
- Baking soda and vinegar powered boat

Show these steps of the scientific method on your display:

- Define the Problem
- Specify Requirements
- Build a prototype
- Test the solution
- Make adjustments to the prototype if needed and test again
- Communicate Results

Experiment: Ask a question you can test, make a guess (hypothesis) as to what will happen, test it, and show your results. Was your hypothesis correct?

Ideas:

- Does the flavor of ice cream affect how fast it melts?
- Does adding salt to water change how quickly it boils? Freezes?
- What material provides the best insulation for a lunchbox?

Show these steps of the scientific method on your display:

- Question: What are you testing?
- Hypothesis: What do you think will happen?
- Materials: Make a list, draw a picture, or take a picture of the supplies you used.
- Data: Make a chart to show your results.
- Conclusion: Did what you thought would happen actually happen? Or did something unexpected happen instead?

For an extra challenge consider including these steps on your display:

- Procedure: Write the order of or use pictures to show what you did first, second, third….last.
- Variables: What were you changing with each test? What was staying the same?
- Analysis: What do your results mean? What did you learn?
- Going forward: What would you do differently next time? What else could you test?

Collection: Observation and data collection of nature

Ideas:

- Look at the moon every night over multiple weeks. Each night take a picture of the moon or draw a picture of it. Is it in the same place in the sky each night? Can you see it, or is it blocked by clouds? How is its shape changing?
- Research a collection found in nature like Big Cats. What are the names of the different types of big cats? Do they live alone or in groups? What size are they? What is their habitat? What do they look like?
- Bring in examples of a collection like rocks, seashells, or leaves etc. How are they the same? How are they different?
- Go on a walk with your family and observe the different types of trees, rocks, or birds etc. you see. Draw or take pictures of your observations. What did you see the most? The least? Make a tally chart to record your data.