
Science Fair Kick-off
Be a Science Superhero!
September 17, 2026

Important Dates

September 07- ***Science Fair Packets Distributed to 4th-6th Grade Students***

- project required

September 07- ***Science Fair Packets Distributed to 3rd Grade Students***

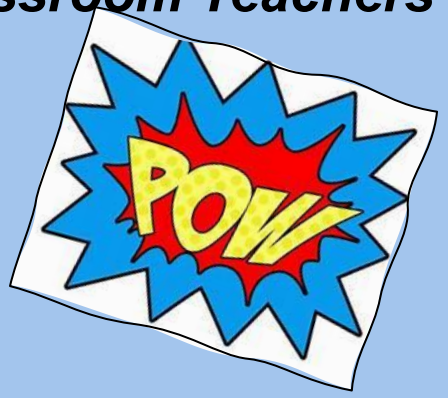
- project optional

December 07- ***All Science Fair Projects Due to Classroom Teachers***

- both science fair log book and board

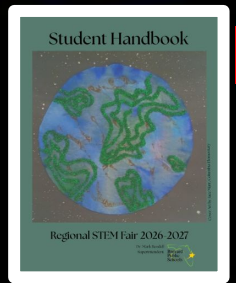
December 14- ***Science Fair Awards Night***

- 5:00 p.m. view projects
- 5:30 p.m. award recipients announced



Purpose

Provide an overview of the guidelines and expectations for this year's Science Fair.



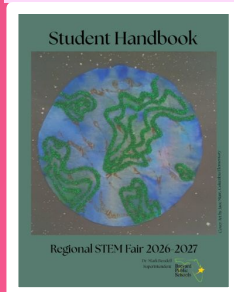
NOTE: Information referenced from 2026 BPS Regional Science & Engineering Student Handbook. See page numbers next to icon on slides to read later.

No Testing Involving...

- firearms, knives or other items that could be considered weapons in a school setting (e.g. a paintball gun, BB gun, bow and arrow, etc.),
- fireworks, rockets with ignitors, or other explosives,
- controlled substances, prescription drugs, alcohol, and tobacco,
- microbial experimentation (involving microscopic organisms such as bacteria, fungi, etc.) using samples/organisms collected from the environment for the purpose of isolating, using for growing, and/or culturing,
- mold or projects that produced mold, even if it was unintentional or inadvertent, (e.g., compost) or
- causing pain, distress, or death to the vertebrate.



SAFETY FIRST!
Soil and sand must be purchased, not used from yard or beach, due to unknown microbials.

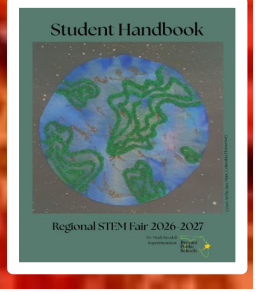


Get an Idea

1. Think about things in your everyday life. Daily activities or hobbies can kick-start an idea for your project.

2. Ask "What if..." questions.

3. Research favorite science topics. Categories include:
   - Animal Sciences
   - Chemistry
   - Earth & Environmental Sciences
   - Human Behavioral Sciences
   - Physics and Astronomy
   - Plant Sciences





CAUTION:

Any project that involves human subjects or non-human vertebrates requires additional forms!



Important Forms for Your Teacher

- **Project Approval Form**
  - This must be completed by you and turned in for your teacher to approve prior to beginning. **(Due Sept. 18)**
- **Ethics Agreement**
  - You will do your own work. **(Due Sept. 28)**
- **Risk Analysis and Designated Supervisor Form**
  - Assesses safety of tools and materials used. **(Due Sept. 28)**

You Need a Log Book

DO...



✔ **Divide your Scientist Log Book into two sections.**

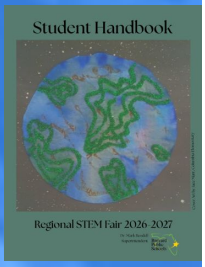
- Daily Work
  - Record the things you do or think about doing with your project. This is written **daily** with the **date** above each entry.
- Data
  - This includes **all data and observations** from the beginning of your project**.** Record all measurements. Your observations explain data and can provide changes from one trial to another.

✔ **Write legibly**.

- If you make a mistake, cross-out and write the correction. Do not erase or white-out.

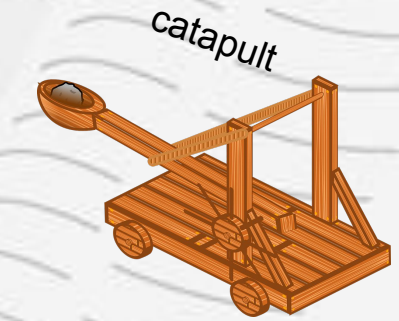
✔ **Write page numbers. A table of contents is a plus!**

pp. 6-7



Time to Research

Three sources (minimum) must be written in the Scientist Log Book and on your bibliography.



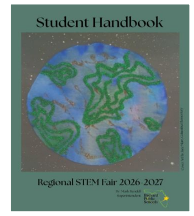
Become an expert by:

- reading what other scientists have learned in the past,
- writing down key vocabulary about your topic, and
- interviewing people or writing to companies involved in the field of study.

Resources

- BPS Gale Elementary (available through Launchpad)
  - user name: brevard1
  - password: brevard
- Internet (Make sure it is a reliable source of information.)
- Enterprise Media Center
  - Use Launchpad to access Pebble Go (3rd) and World Book (3rd-6th)
  - Search titles of books using Follett (Destiny)
- Brevard Public Libraries
- Interview an expert in the field
- Write companies

pp. 6-7



NOTE:
If your project focuses on a non-human vertebrate, one resource must be on how to care for that animal.

Research --Gather citations now for notes in log book AND a bibliography page.

BPS Gale Elementary



Research: gravity

(click on icon—must be open in Launchpad)

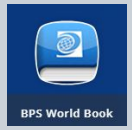
Notes:

- A force that pulls matter to the center of the Earth
- Mass- how much matter is in an object
- Weight- different on Earth to the moon because of gravity

Citation for Bibliography **MLA:**

"The Force of Gravity." *Things in Motion*, 18 Oct. 2016. *Gale In Context: Elementary*, link.gale.com/apps/doc/POONPT202829463/ITKE?u=fl_brevs&sid=bookmark-ITKE&xid=a7136f20. Accessed 15 Sept. 2026.

World Book Encyclopedia



Research: catapults

(click on icon—must be open in Launchpad)

Notes:

- Originated in Greece for use in battles
- Two types: non-torsion and torsion
- Torsion used twisted fibers (ropes) to spring items forward
- Trees were used as a catapult
- Used today in aircraft carriers

Citation for Bibliography **MLA:**

Sauers, Richard A. . "Catapult." *Discover by World Book,*2026, https://www.worldbookonline.com/discover/#//article/home/ar099740. Accessed 17 Sept. 2026.

Online Video

Research: lever

Notes:

- Lever = simple machine
- A fulcrum (pivot point) is under the lever to help a side go up
- There are different types of levers (e.g., see-saw, wheel-barrow).

Citation for Bibliography **MLA:**

"Super Simple Machines: Levers." *Sci Show Kids!,* uploaded by Forand 17 Sept. 2026, https://www.youtube.com/watch?v=lueqE0lxLyc

Bibliography Example (MLA style)

Bibliography

Sauers, Richard A. . "Catapult." *Discover by World Book,*2026, https://www.worldbookonline.com/discover/#//article/home/ar099740. Accessed 17 Sept. 2026.

“Super Simple Machines: Levers.” *Sci Show Kids!,* uploaded by Forand 17 Sept. 2026, https://www.youtube.com/watch?v=lueqE0lxLyc

"The Force of Gravity." *Things in Motion*, 18 Oct. 2016. *Gale In Context: Elementary*, link.gale.com/apps/doc/POONPT202829463/ITKE?u=fl_brevs&sid=bookmark-ITKE&xid=a7136f20. Accessed15 Sept. 2026.

Variables in Our Project

INDEPENDENT VARIABLE

What I CHANGE

DEPENDENT VARIABLE

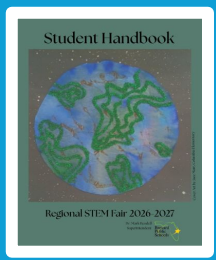
What I OBSERVE

CONTROLLED VARIABLE

What I KEEP THE SAME



pp. 8- 9



Problem Written in Question Form

The question asks what want you want to have answered by testing.

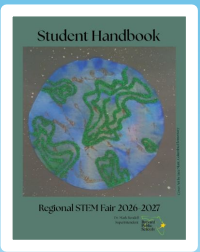
- Use one of these formats:
  - How will _____ affect _____?
  - What are the effects of _____ on _____?
  - What happens to _____ when the _____?
  - Is there a relationship between _____ and the_____?

Our Question:

(independent variable)

Is there a relationship between the placement of the fulcrum in a catapult and the height of the load (styrofoam superhero)?

(dependent variable)



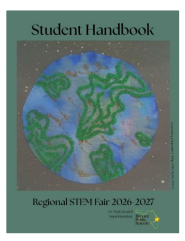
Hypothesis

- **It is a prediction of what you think will happen. The hypothesis is...**
  - based on what you know from your research,
  - written prior to completing experiment, and
  - represented as an "If...then" statement.

- **Based on the research, discuss your hypothesis within your group.**

  - If the fulcrum is placed farthest away from the load, then the height of the styrofoam superhero will be _____ because _____.

    greater shorter (choose one)



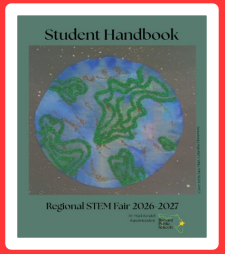
Materials and Procedures

- **List all the materials you need to complete your experiment.**
  - Include amounts of each item.
- **Provide a numbered, step-by-step procedure.**
  - Be specific (e.g., measurement).
  - It is like a recipe for scientists to repeat.
- **A minimum of three (3) trials is required**
  - Five (5) to ten (10) trials is best.
- **Write them in your Scientist Log Book.**



Read over the Materials and Procedures for our catapult superhero project in your packet.

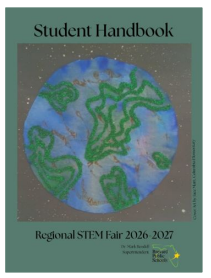
pp. 9-10





Conduct the Experiment

Write your results on the chart provided in your packet.



Analyze the Data (Results)

- **Look closely at the data. Think about what it means.**
  - Use math to help.
    - Percentages
    - Mean (average of a set of numbers)
    - Median (middle number within a set)
    - Mode (number most displayed within a set)
    - Range (difference between the greatest and least number within a set)

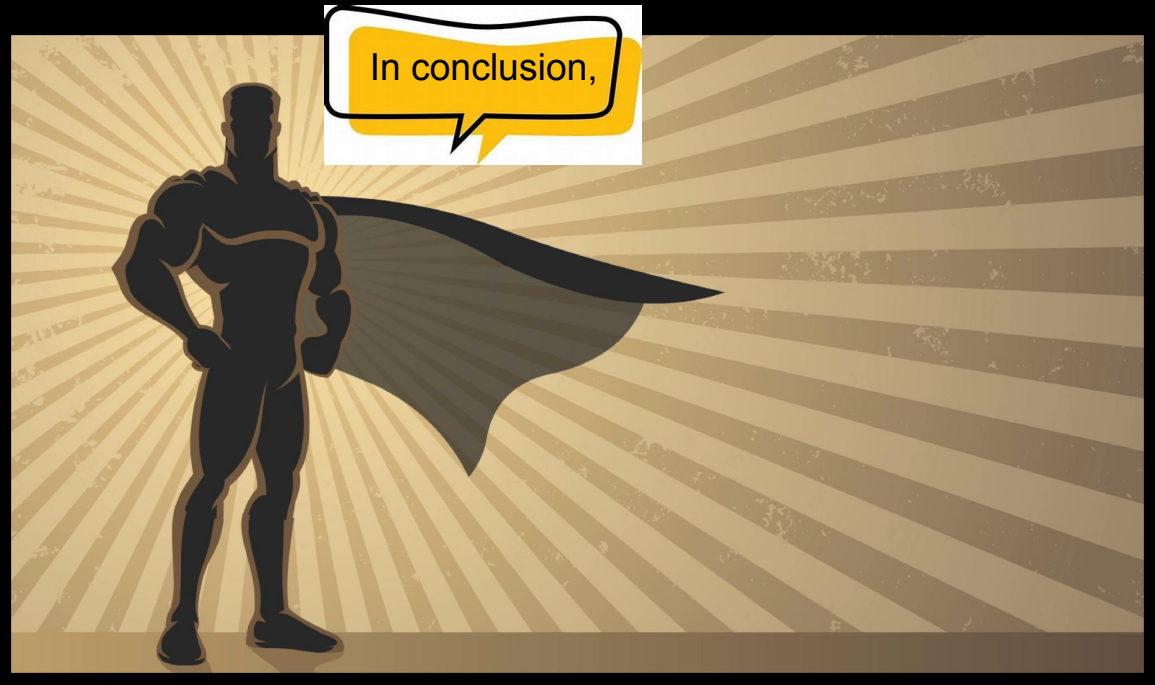
- **Create a graph that is easy to understand.**

https://nces.ed.gov/nceskids/createagraph/



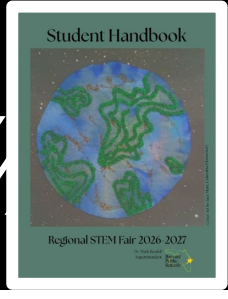
https://nces.ed.gov/nceskids/graphing/classic/

Conclusion



In words, describe what you have learned from your investigation based on the results.

- **It connects back to your hypothesis.**
  - Does it support it? Why or why not?
- What further testing could be done to answer question?
- If you were to repeat it, what would you do differently?



Display Board

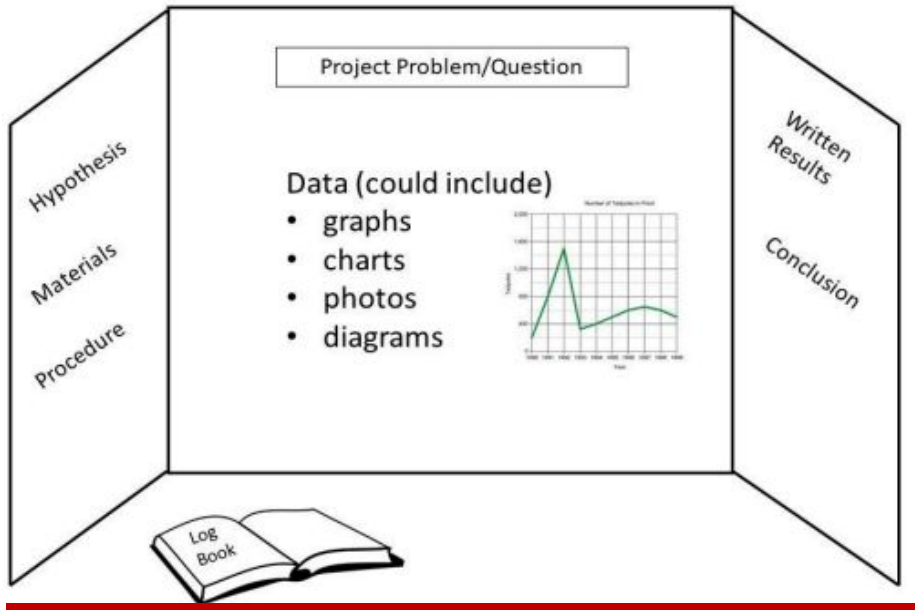
It tells the story of the steps you took using the Scientific Method.

- Be thoroughly prepared to share your understanding of all parts of your project with others.
- Edit what you display and be neat, so it is easy to read.
- It must be able to fold flat.
- Read over pages 4-5 of Student Handbook for details.



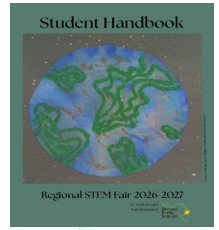
This is the last part to do before you turn in the board and log book to your teacher on Monday, December 07, 2026.

Sample of a Science Project Display Board



- ✔ Student's last name or school name must not be visible display board or log book.
- ✔ Students MAY use photographs that include their faces. Photo credit must be provided. (e.g., "All photographs taken by parents of Jeffrey.")
- ✔ Internet sources must be cited.

pp. 4 & 11





You ARE a Science Superhero!

Visit our school web page. Quick (1-2 minute) videos are uploaded to help guide you through steps in the process.