



PASCO SCIENCE & ENGINEERING SHOWCASE

A chance to change the world!

WHO IS INVOLVED?

Advanced Gifted Students

- all students are required to participate

Honors Students

- all students are required to participate

Accelerated Students

- all students are encouraged to participate

Advanced Students

- all students are encouraged to participate

Basic Students

- all students are encouraged to participate

WHAT IS THE SCIENCE & ENGINEERING SHOWCASE?

Science & Engineering Competition

- Grade Level, School, District, State

Science Showcase - Trying to answer real world questions using formal experimental methods

Engineering Showcase - Trying solve a real-world problem with a working prototype

- Finally! A rubric specifically designed for engineering projects

Creative

Challenging

Rewarding

[The Power of Science Fair](#)

[2022 Science & Engineering Winners from Pasco](#)

**WHAT DOES
THE SCIENCE
&
ENGINEERING
SHOWCASE
LOOK LIKE?**

Process Journal

Abstract

Question/Problem

Background Research

Hypothesis/Claim

Experimental Design (materials, procedure) or
Prototype Development (materials, procedure)

Experimentation & Data Collection

Data Analyses

Conclusion

Bibliography

WHAT DO THE JUDGES LOOK FOR?

- an original question based on previously conducted research.
- a student generated experimental design with five trials and attention to safety.
- experimentation/testing based on the driving question.
- explanations as to how the data supports or fails to support the student's hypothesis.
- accurate variables identified and accounted for.
- appropriate data collection and analysis.
- clear explanations and a demonstration of how well the problem and solution are understood by the student (the student can defend the connection between the results and the conclusion).
- identification of potential sources of error.
- an explanation of how the innovation could have broader reach or impact beyond the student, family, or community.

HOW DO STUDENTS WORK ON THEIR SHOWCASE?



Working in class, at least one day each week



Independent (at home)



Showcase Lunch every Friday without FAST testing – Room 713



Showcase Afternoon every Wednesday – Room 713

WHAT PROJECTS HAVE REPRESENTED PVMS?

**Marshmallow
Density**

Using different sweeteners to change the density of marshmallows for different uses

***Hide and Seek**

Plants finding their way around barriers to reach the sunlight

***Worm's Way**

Adding native earth worms to the soil to improve plant growth/production

***Blocking the Sun-
natural or
synthetic?**

Determining the most efficient & healthy way to block the sun's UV rays

Just Kick It!

Recreating a soccer ball using Teflon to reduce the friction and speed up the game

**An Analysis of
How Color Affects
the Absorption of
Solar Radiation**

Using mathematical analysis to examine absorption of solar radiation

**The Alkaline
Properties of Wild
Bitter Melon
Leaves**

Using Wild Bitter Melon Leaves to combat heartburn and acid reflux



WHAT CAN I DO?

Provide Guidance

- Help your student figure out what they are curious about
- Ask specific questions about your student's project

Answer Questions

- Provide your opinion when your student seeks your input
- Don't be afraid to admit you don't have an answer
- Be willing to help search for answers

Provide Supervision

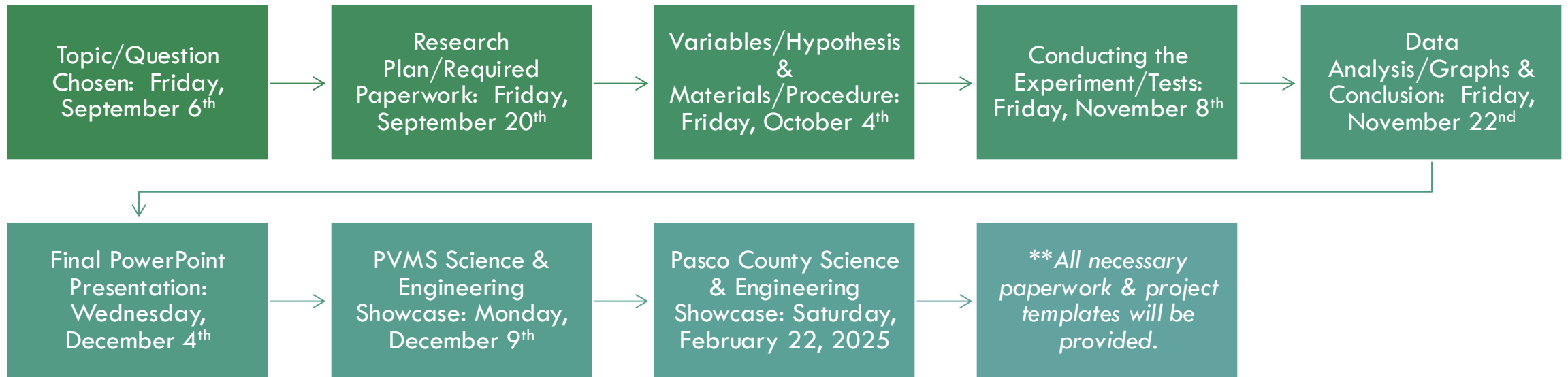
- Be with your student to ensure their safety

Offer Praise & Support

- Acknowledge they are taking on a real challenge

Be a Mentor

Have FUN!



TIMELINE (SUBJECT TO ADJUSTMENTS)

MANAGING TIME

1

Balancing work for all classes

- Use of planner helps
- Check myLearning regularly

2

Utilizing time wisely in school and out

- Create a timeline-stick to it
- Good rest and nutrition habits aid focus
- Checking planner at home daily

3

Finding help/support

- Check out resources in myLearning
- Ask your student's teacher

SPECIFICS

PVMS Science & Engineering Competition

- ALL projects MUST be teacher approved PRIOR to start
 - NO human subjects
 - NO vertebrates may be used
 - NO hazardous chemicals, molds, mildews, bacteria, viruses
- Digital Submission
- Grade Level winners announced Friday, December 6th
- School competition: Monday, December 9th – Thursday, December 12th, 2024

All paperwork uploaded to Zfairs for district competition (school winners)

- Thursday, December 19, 2024

Pasco County Science & Engineering Competition

- Saturday, February 22, 2025 - Angeline Academy of Innovation

Pasco County Science & Engineering Awards Gala

- Thursday, February 27, 2025 - WCHS Performing Arts Center



QUESTIONS?

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