

# 2022 Salt Brook STEM Fair



**Thursday March 10<sup>th</sup>, 2022**

**Registration: February 1 - February 18, 2022**

**Poster Board Trifolds will be distributed by February 25th**

**Your Group:** Students may register as individuals or with one or two other partners – no more than 3 students per project. Each student or team will be given a poster board on which to present their project.

**Website:** Our STEM Fair webpage contains links to the registration form and volunteer sign ups, as well as additional resources and guidelines. Visit [www.saltbrookpta.com/stemfair](http://www.saltbrookpta.com/stemfair).

**Registration:** Complete the [Registration Form](#) by February 18.

**Parent Volunteers:** Lots of volunteers are needed to make a great STEM Fair. If you can help out with set-up, registration, monitoring or clean up, please sign up using the [Sign Up Genius](#) which can also be found on our website.

**VIP Pass:** All participants will receive a 2022 Salt Brook STEM Fair VIP pass and lanyard. Participants should wear their lanyard and pass to the fair in the evening.

## **Restrictions:**

- Please do not use projectiles, weapons or animals of any kind in the projects.
- If using liquids, you must bring a pan to catch any spills and paper towels for clean up.
- Please do not distribute foods, samples or goods at the fair.

**Questions?** Email Diana Ettinger at [ettingers4@gmail.com](mailto:ettingers4@gmail.com)

**Awards** - Trophies will be distributed in a few select process award categories as follows:

- ★ **6th Grade Award** - For individual 6th graders who have participated in the fair for 4 years
  
- ★ **STEM Design Award** - Project with the best use of the STEM design process
  
- ★ **Coding Award** - Project with the best use of computer programming / coding
  
- ★ **Scientific Method Award** - Project with the best use of the scientific method
  
- ★ **Creativity Award** - Project displaying the most creativity or uniqueness
  
- ★ **Green Award** - Project with the best potential environmental impact
  
- ★ **Presentation Award** - Project with the best visual presentation
  
- ★ **Impact Award** - Project with the most interesting or potentially impactful results
  
- ★ **Effort Award** - Project demonstrating an exceptional level of detail or effort

# Group Responsibilities

**Project** - Choose and execute a project using one of the following:

1. Scientific Method - ask a question, form a hypothesis and test it with an experiment (see pg. 4)
2. Engineering Design Process - design something to solve a problem (see pg. 5)
3. Coding Method (see pg. 6)

**Board Presentation** - One board will be provided to each group. Your board should be a visual representation of your project. The next few pages will specify board layouts depending on your project choice (Scientific Method, Engineering Process, or the Coding Method)

**Speech** - Students will prepare a brief 1-2 min speech highlighting the key components of their project, which they will present to teachers/high school student volunteers on the night of the fair. Note cards are encouraged if helpful. Your speech should include:

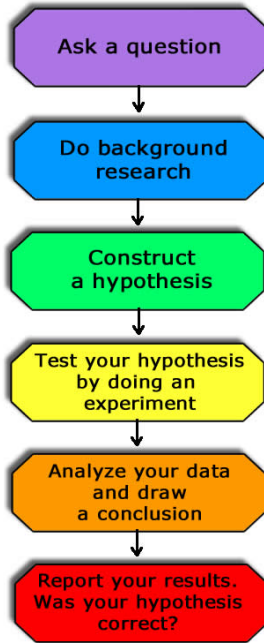
- An explanation of the title with a clear and focused purpose
- A brief description of the design or methodology used
- A brief interpretation of the data or a demonstration of your model
- A conclusion well supported by the project
- Clear and understandable speaking
- A strong demonstration of understanding the science, engineering, or programming involved in the project

**Interview** - Following the speech, students should be prepared to answer questions from teacher/high school student volunteers such as:

- How they arrived at their projects
- What they learned from their projects
- What they liked best about the experience

# \*\*\*For Scientific Method Projects ONLY\*\*\*

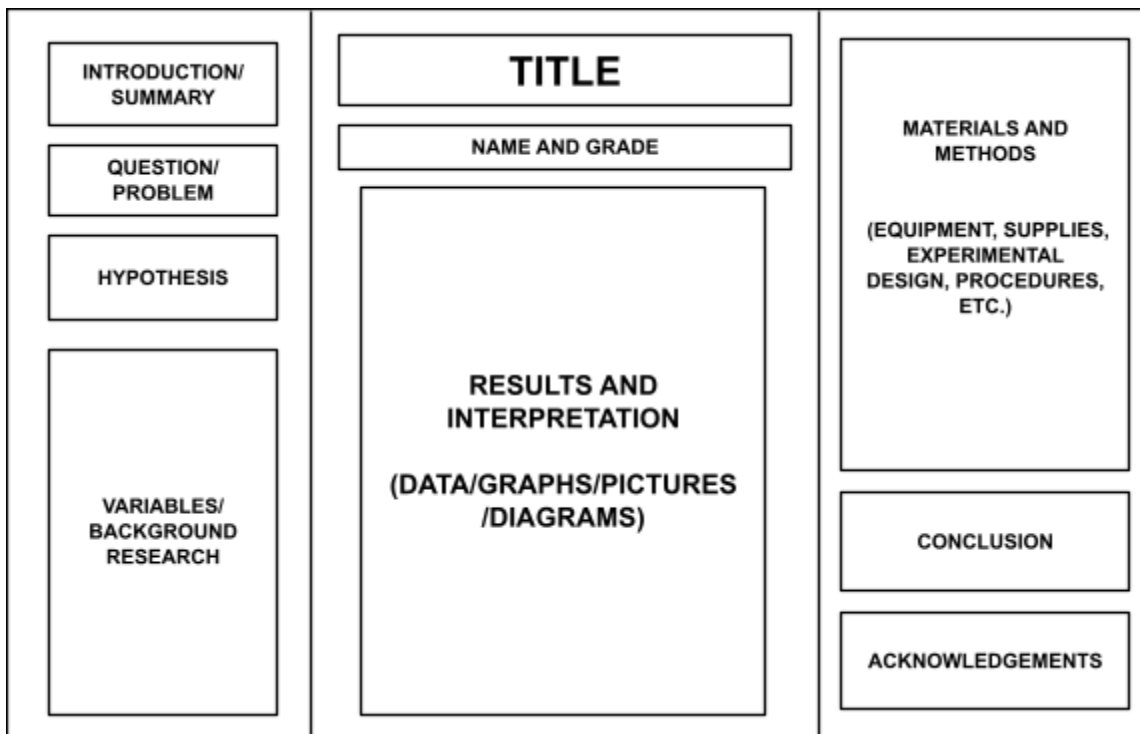
## The Scientific Method



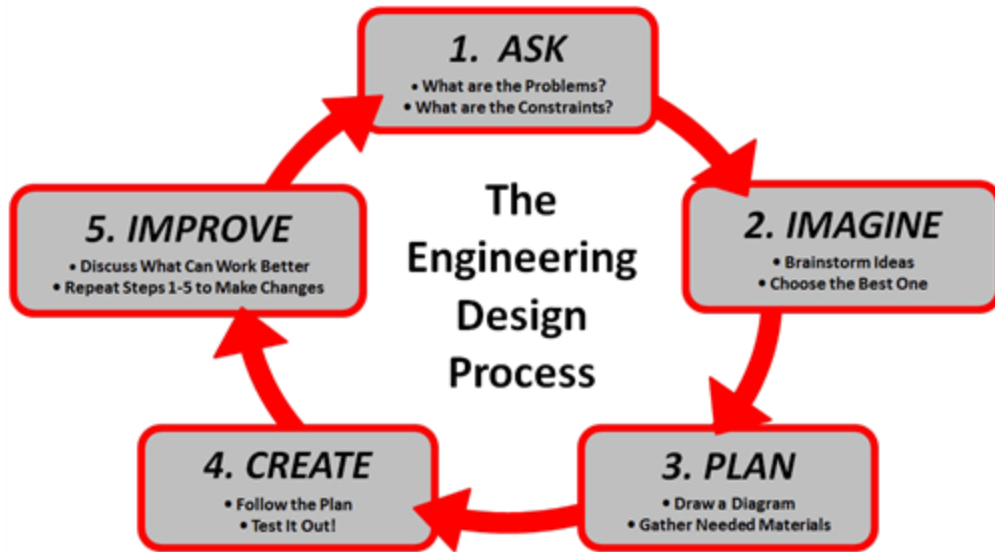
## Your board should include:

- Introduction
- Title of Project
- First and last name and grade level clearly posted
- Statement of the Question or Problem
- State your Prediction/Hypothesis
- Identify the Variables (A variable is anything that could potentially change the outcome of your experiment) This is highly recommended for 5<sup>th</sup> and 6<sup>th</sup> graders
- List all Materials and Equipment used
- Procedures (List the steps you followed)
- Results (Show Charts, Graphs, Tables, Diagrams)
- Conclusions (What I learned)

**Designing your board** - Below is a simple example. Be sure to organize your board however best fits your project. Add any research or visual aids to enhance your overall project. Your projects should be a reflection of your own ideas or work. Be creative, neat and take PRIDE in the work you will be presenting at the fair.



**\*\*\*For Engineering Design Projects ONLY\*\*\***

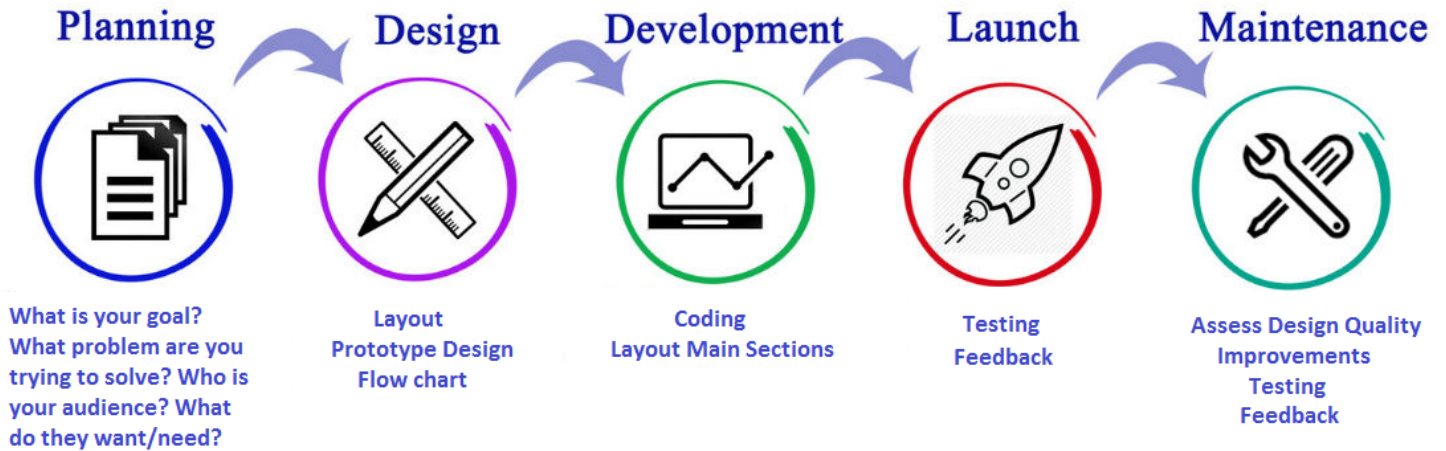


**Designing your board** - Below is a simple example. Be sure to organize your board however best fits your project. Add any research or visual aids to enhance your overall project. Your projects should be a reflection of your own ideas or work. Be creative, neat and take PRIDE in the work you will be presenting at the fair.

<p><b>ASK:</b></p> <p>WHAT IS THE PROBLEM YOU WANT TO SOLVE? WHO WOULD IT HELP?</p>	<p><b>TITLE</b></p> <p>NAME AND GRADE</p>	<p><b>PLAN:</b></p> <p>ORIGINAL BLUEPRINT HERE</p>
<p><b>BACKGROUND RESEARCH:</b></p> <p>WHAT DID YOU NEED TO LEARN?</p>	<p><b>RESULTS:</b></p> <p>PICTURES OF FINAL PRODUCT</p> <p>HOW WAS IT TESTED?</p> <p>WAS IT HELPFUL TO THOSE WHO HAD THE NEED?</p>	<p><b>CREATE:</b></p> <p>PICTURES AND DESCRIPTIONS OF THE FIRST BUILD</p>
<p><b>IMAGINE:</b></p> <p>LIST SOME OF THE IDEAS YOU BRAINSTORMED</p>		<p><b>IMPROVE:</b></p> <p>THINGS THAT NEED TO BE FIXED</p>
		<p>ACKNOWLEDGEMENTS</p>

**\*\*\*For Coding Design Projects ONLY\*\*\***

**Coding Design Process**



**Designing your board** - Below is a simple example. Be sure to organize your board however best fits your project. Add any research or visual aids to enhance your overall project. Your projects should be a reflection of your own ideas or work. Be creative, neat and take PRIDE in the work you will be presenting at the fair.

<p><b><u>GOAL:</u></b></p> <p>WHAT IS YOUR GOAL OR THE PROBLEM YOU WANT TO SOLVE? WHO IS YOUR AUDIENCE?</p>	<p><b>TITLE</b></p>	<p><b><u>TESTING AND FEEDBACK:</u></b></p> <p>WHAT PROBLEMS DID YOU ENCOUNTER? HOW DID YOUR AUDIENCE RESPOND?</p>
<p><b><u>BACKGROUND RESEARCH:</u></b></p> <p>WHAT DID YOU NEED TO LEARN?</p>	<p>NAME AND GRADE</p>	<p><b><u>CONCLUSIONS:</u></b></p> <p>WERE YOU ABLE TO ACHIEVE YOUR GOAL?</p>
<p><b><u>DESIGN:</u></b></p> <p>DISPLAY LAYOUT AND/OR FLOWCHART FOR YOUR DESIGN</p>	<p><b><u>DEVELOPMENT:</u></b></p> <p>FINAL CODE</p> <p>PICTURES OF FINAL PRODUCT</p>	<p><b><u>IMPROVE:</u></b></p> <p>THINGS THAT NEED TO BE FIXED</p>
		<p><b>ACKNOWLEDGEMENTS</b></p>

## Schedule of Events for STEM Fair - March 10, 2022

- 3:00 – 4:30 pm** Register and set up poster boards after school.
- 6:30 – 6:45 pm** Student arrival. Families not permitted.
- 6:45 – 7:15 pm** Project interviews. Families not permitted.
- 7:15 – 7:45 pm** Open to Guests. Parent/sibling/friends tour of projects (while students remain by posters).
- 7:45 – 8:15 pm** Student viewing of projects.
- 8:00 – 8:15 pm** Recognitions announced.
- 8:15 – 8:30 pm** Clean up and take boards home.

Thank you for participating!

**Mark Your Calendars:** Pizza party for participants on **March 29th, 2022**