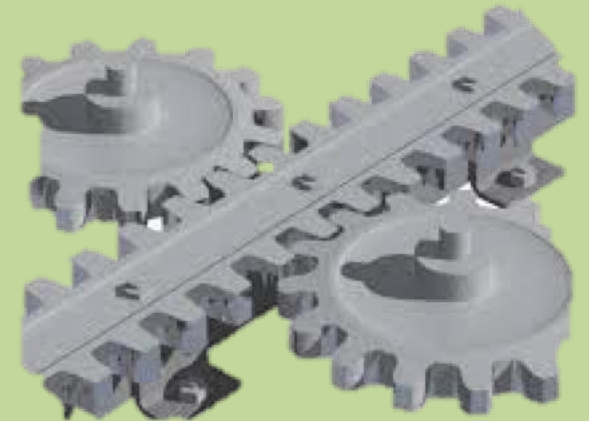




# P.S. 60 STEM Fair



# STEM

- Science
- Technology
- Engineering
- Math

# Engineering

- Engineering is the application of science and technology to help solve a problem.
- Engineering projects can involve designing, building, analyzing, modeling or improving a device.
- You can also test or create materials.

# Invention Project Steps

- 1) Identify a Problem
- 2) Conduct Background Research
- 3) Suggest a Solution
- 4) Design and Build a Solution
- 5) Collect Data
- 6) Analyze Data and Report Results

# Purpose and Goal of Your Project or Challenge

- Students can identify a problem they want to solve.
- Students can identify a process or physical design they want to improve.

# Conduct Background Research

- Read about your topic. Tell a little information about what you read, observed, or did. Include where you found your information.
- A few sentences is all that is needed!

# Materials

List all materials that you used.

Be specific. Include measurements and quantities.

# Conclusions

- Explain what you found out from completing your project.
- **Future**
- If you were to complete your project again, what would you to change or improve.



# Collect Data

- Create a table or chart to record your data or observations.
- Photographs can be included as data.

# Interpreting Data and Report Results

- Look at the data or observations that you collected.
- Explain what the data or observations mean.
- For example, “I noticed that Plant A grew  $1\frac{1}{2}$  cm. more than Plant B” or “Plant A had very green leaves, Plant B had green leaves with yellow edges.”
- Another example is, “Bridge A held 10 more coins than Bridge B.”

# STEM Fair Project Rubric

Attractiveness	<ul style="list-style-type: none"><li>• Make sure board is neat, organized and attractive.</li><li>• Make sure all spelling and grammar are correct.</li><li>• Board should be creative and include pictures.</li></ul>	/25
Organization/Format	<ul style="list-style-type: none"><li>• Make sure all parts of the STEM Process are included.</li></ul>	/25
Accuracy of Content	<ul style="list-style-type: none"><li>• Make sure all information is correct.</li></ul>	/25
Knowledge of Content	<ul style="list-style-type: none"><li>• Oral presentation shows that you understand the topic.</li></ul>	/25

# Websites

- [sciencebuddies.org](http://sciencebuddies.org)
- [Education.com/science-fair/?q=engineering](http://Education.com/science-fair/?q=engineering)
- [School.discoveryeducation.com/sciencefaircentral](http://School.discoveryeducation.com/sciencefaircentral)
- **For more STEM fair ideas, feel free to Google “STEM fair ideas”**

# Some Project Suggestions

- Towers
- Bridges
- Robots
- Mazes
- Tunnels
- Buildings

Can use:

- Legos
  - Cups
  - Plates
  - Sticks
  - Or any other materials
- BE CREATIVE!**

# Notes

- Along with the board, make sure to bring in the prototype (model) of your invention.
- Make sure to add photographs on your board.
- Don't write directly on the board. Type your notes and glue them onto the board.
- Make the boards attractive and neat.
- Make sure all parts of the STEM process are included.