


THE  
ENGINEERING  
DESIGN PROCESS

**ask**  
Define the problem.



Brainstorm possible solutions.

**imagine**




**plan**

THINK!  
SKETCH!  
LABEL!



**create**

Make a prototype and test it.



**improve**

How can you modify your design to make it better?



## Tri-Fold Poster Guidelines for Engineering Project ("Solving a problem")

- Title of Project
- First and last name and grade level clearly posted
- Statement of the **Problem** or **Purpose**
- Identify the **Variables** (a variable is anything that could potentially change the outcome of your experiment). This is a mandatory step for 5<sup>th</sup> and 6<sup>th</sup> graders
- State your Hypothesis/Solution to Problem
- Complete list of Materials and Equipment used
- Procedures (Steps you followed)
- Data Results (Charts, graphs, tables, diagrams, sketches)
- Conclusions (What I learned/How to improve design)

### Checklist for Success

- \_\_\_ My project shows original thinking
- \_\_\_ My project is well organized
- \_\_\_ I show that I've used the Engineering Design Process and have defined my variables and controls
- \_\_\_ I did my research and documented it
- \_\_\_ I used a notebook to collect data and research
- \_\_\_ I worked carefully on the project
- \_\_\_ I am prepared to present my project in an organized and knowledgeable way
- \_\_\_ I used tables, graphs, and illustration in analyzing data
- \_\_\_ I know what I'm talking about and I understand the engineering involved in my project
- \_\_\_ I have a display that's attractive, well labeled, and easily understood
- \_\_\_ I have a complete and comprehensive report