



## Science & Engineering Fair Details

**Projects on Display:** Friday, April 3rd. Open-house is scheduled for Friday 5:00-6:30pm. More details to follow.

**Entry Drop-off Times:** Projects should be brought to the gym afterschool on Thursday, April 2 (3:45-4:15) or before school on Friday, April 3 (8:15-8:45).

Location: Werner Elementary School, 5400 Mail Creek Ln., Fort Collins, CO 80525

**Grade Levels:** Students from all grade levels are invited to participate. We will have two divisions, grades K-2 and grades 3-5.

**Categories:** Projects should follow either the Scientific Method Process or the Engineering Design Process. Other types of science projects are welcome to be put on display but may not be selected for awards.

## Suggested Themes & Ideas

#### Scientific Method

#### Behavioral Science

Reaction to stimuli

### **Botany and Agriculture**

Plants

#### Consumer Sciences

Product testing

#### **Earth Sciences**

Rocks and minerals

Glaciers

Volcanoes

Mountains

Ecology

### Math/Computers

Probability Statistics Mathematical relationships

### **Physical Science**

Light, prisms, color

Motion, gravity

Heat Energy

Properties of materials (wood, metals,

Sound

Simple machines (pulleys, levers, gears

Electricity

Magnetism

Chemistry

### Zoology/Medicine

Medicine and the human body Animals/Wildlife

### Engineering

### Engineering

Water treatment

Solar energy/insulation

Structures (bridges, buildings)

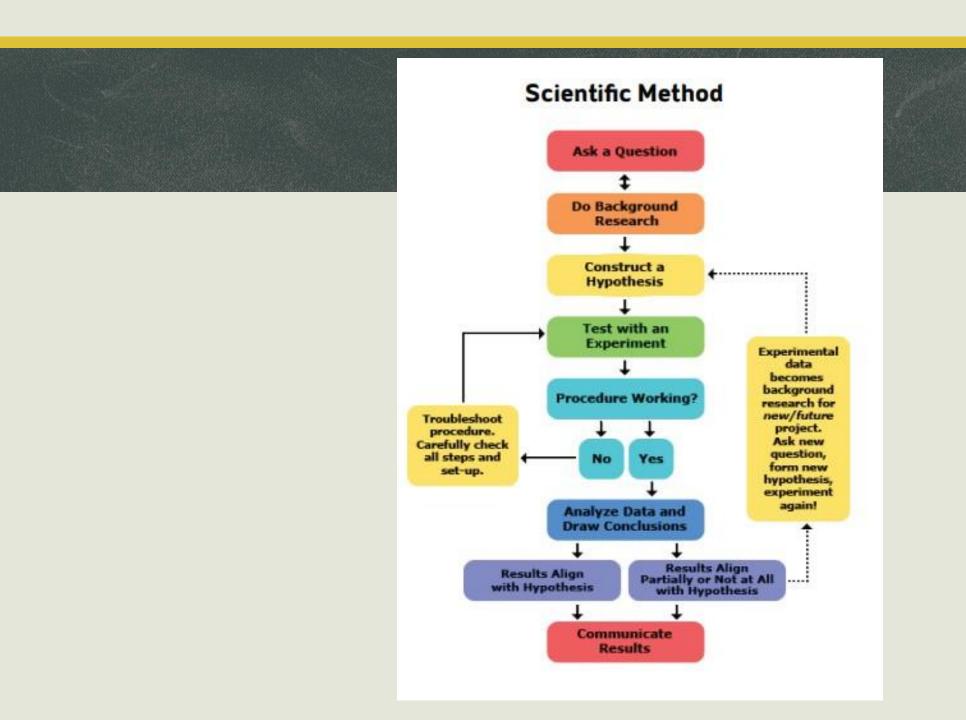
New inventions

Mechanics (auto, bicycles)

Design

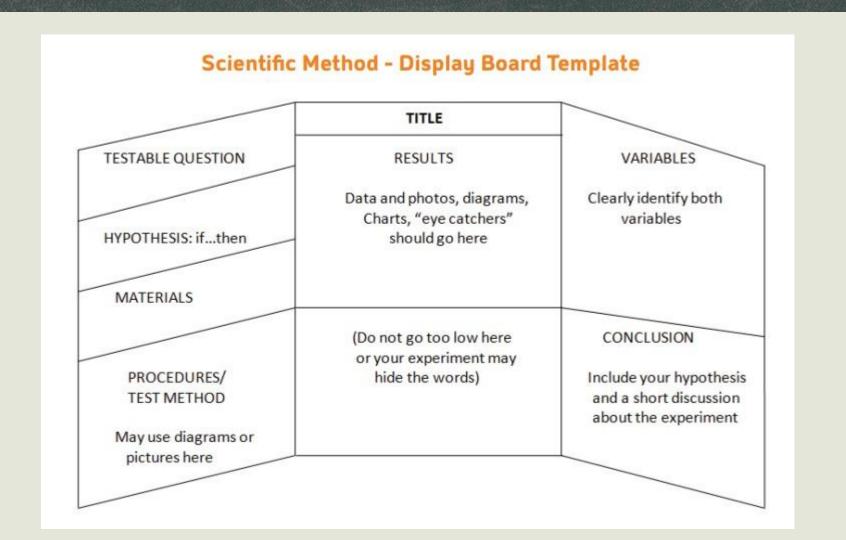
Aeronautics (flight, airplane design, wind tunnels)

Pollution control

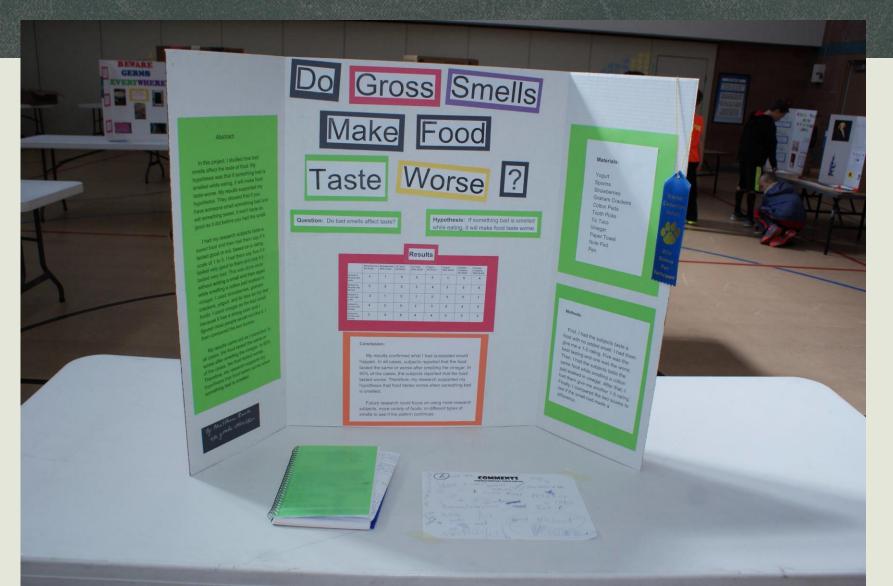


### **Engineering Design Process Define the Problem** Do Background Research Specify Requirements Brainstorm, Evaluate, **4**..... and Choose Solution Based on results and **Develop** and data, make **Prototype Solution** design changes, prototype, test again, and review new data. **Test Solution 4**------**Solution Meets Solution Meets** Requirements Partially or Not at All ..... Requirements Communicate Results

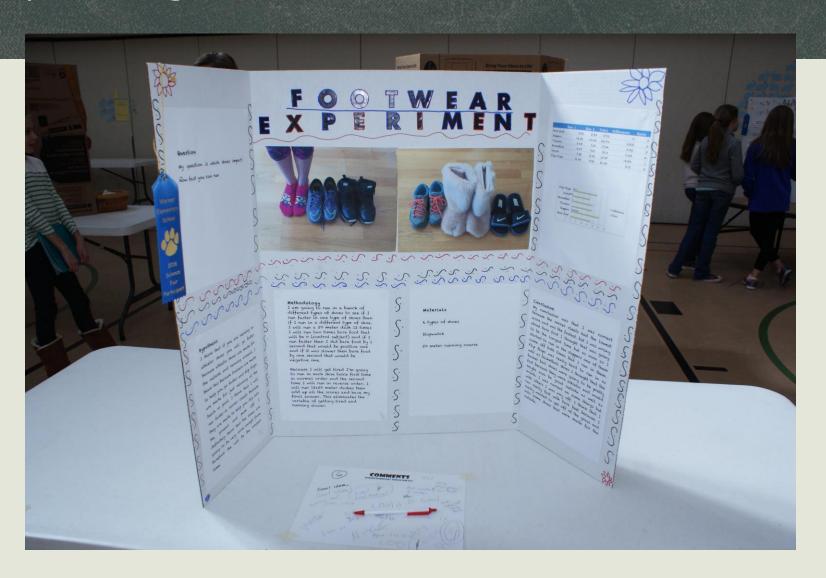
## How to Display your Project



# Example- Using the Scientific Method



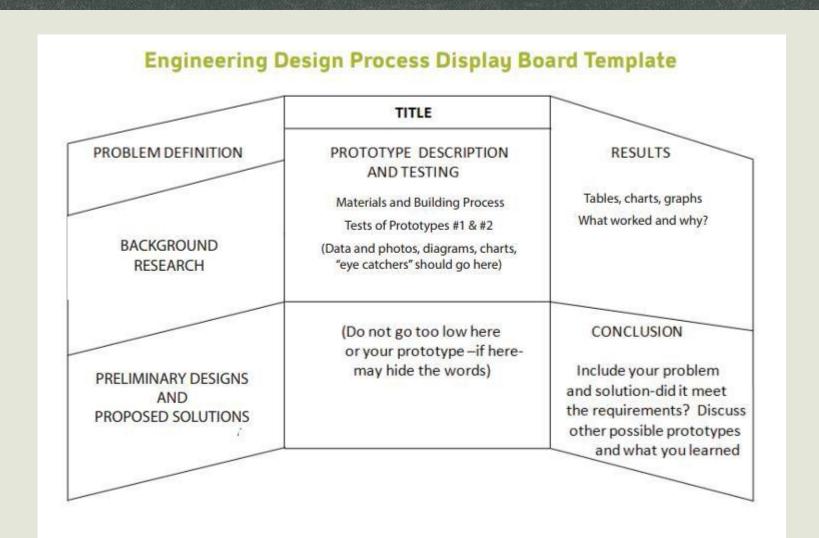
# Example- Using the Scientific Method



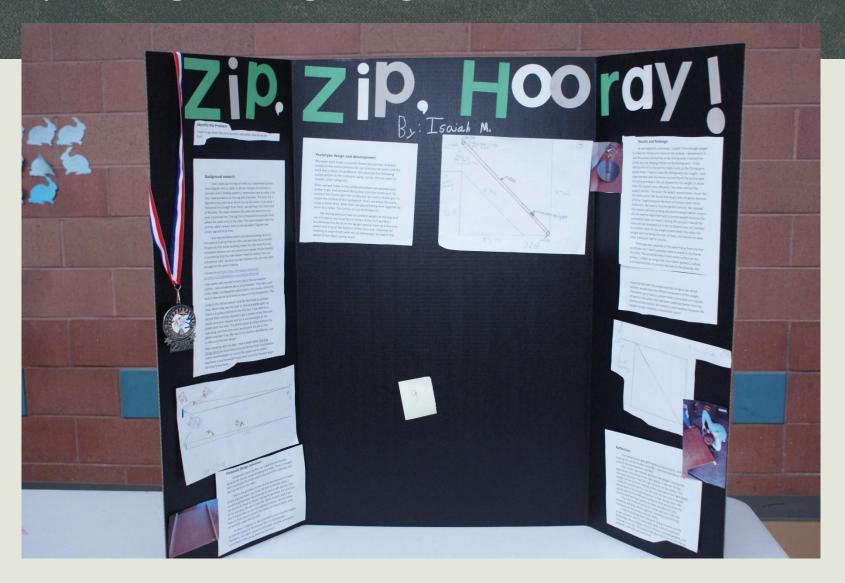
# Example- Using the Scientific Method



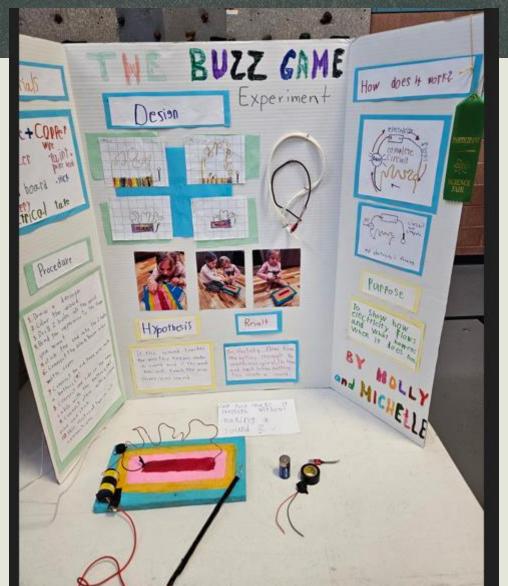
## How to Display your Project



# Examples- Engineering Design Process



# Examples- Engineering Design Process



## Safety

- 1. The use of dangerous chemicals, open flames, and explosives will not be permitted with any display.
- 2. Live animals, poisonous plants, bacteria or fungi will not be permitted with any display. (This includes mold, spoiled food, etc.) When parts of a project can't be displayed, please use photographs, drawings, or models to illustrate the project.
- 3. If batteries are used, they must be sufficiently charged to maintain operation throughout the time of the fair. If you need an electrical outlet for your project, please contact Mr. Putman before the science fair to reserve space by an outlet.
- 4. Studies involving the use of drugs or alcohol WILL NOT be permitted.
- 5. Werner Elementary reserves the right to refuse any exhibit which is considered unsafe.

## Questions

Can I work with a partner?

Yes! Individual or group projects (2-3 students) are allowed.



Please contact Mr. Jeff Putman (jputman@psdschools.org) with any other questions.