

# Hiteon Science Fair Requirements

## School District rules apply, SAFTEY FIRST!

### Not allowed at display\*:

- Living organisms-plants or animals or dead parts of animals or plants
- Dirt, soil, bark chips or sand
- Aerosol bottles or other pressurized gases
- Hazardous substances or devises including lasers
- Sharp items
- Flames or highly flammable items
- Any human or animal food
- Glass or Liquids

\*If these items are part of your project, please use other methods such as drawings, photos, or video to provide evidence.

## Reverse Engineering – Disassemble a mechanical product to analyze how it works.

**\*\*IMPORTANT\*\*** Products containing hazardous materials (such as screens and TVs) and weapons of any kind are **not allowed**. Products chosen for reverse engineering should be appropriate for elementary aged students, appropriately sized for mounting, and allowable on school grounds.

Students should answer the following questions on 2-4 pages and include at least 2 pictures.

1. How does the product operate and what it is used for?
2. What is the functionality of the individual components?
3. How do the components work together?
4. Describe unique uses of materials and why one material might be used instead of another.

## DISPLAY BOARD EXAMPLE

|   |   |  |
|---|---|--|
| <div data-bbox="212 1188 516 1262" style="border: 1px solid black; padding: 5px; text-align: center;"><b>PROCEDURES</b></div> <p data-bbox="212 1276 526 1310">(How did you take it apart)</p> <p data-bbox="175 1371 565 1404">Include pictures and/or drawings.</p> | <div data-bbox="643 1188 963 1262" style="border: 1px solid black; padding: 5px; text-align: center;"><b>PROJECT TITLE</b></div> <div data-bbox="643 1304 963 1398" style="border: 1px solid black; padding: 5px; text-align: center;"><b>PRODUCT DESCRIPTION</b></div> <p data-bbox="605 1415 995 1449">(How it works, what it is used for)</p> <div data-bbox="659 1520 946 1593" style="border: 1px solid black; padding: 5px; text-align: center;"><b>DIAGRAM</b></div> <p data-bbox="618 1612 1003 1677">(Show where each component is in the product)</p> | <div data-bbox="1073 1188 1430 1293" style="border: 1px solid black; padding: 5px; text-align: center;"><b>INDIVIDUAL COMPONENTS</b></div> <p data-bbox="1052 1310 1453 1434">(Mount the individual components and label them. Include a description of the component function.)</p> |
|---|---|--|

*Materials can be placed in front of the display, but components should be mounted.*

# Hiteon Science Fair Requirements

## Inquiry / Experiments – Use the scientific method to investigate a question through experimentation.

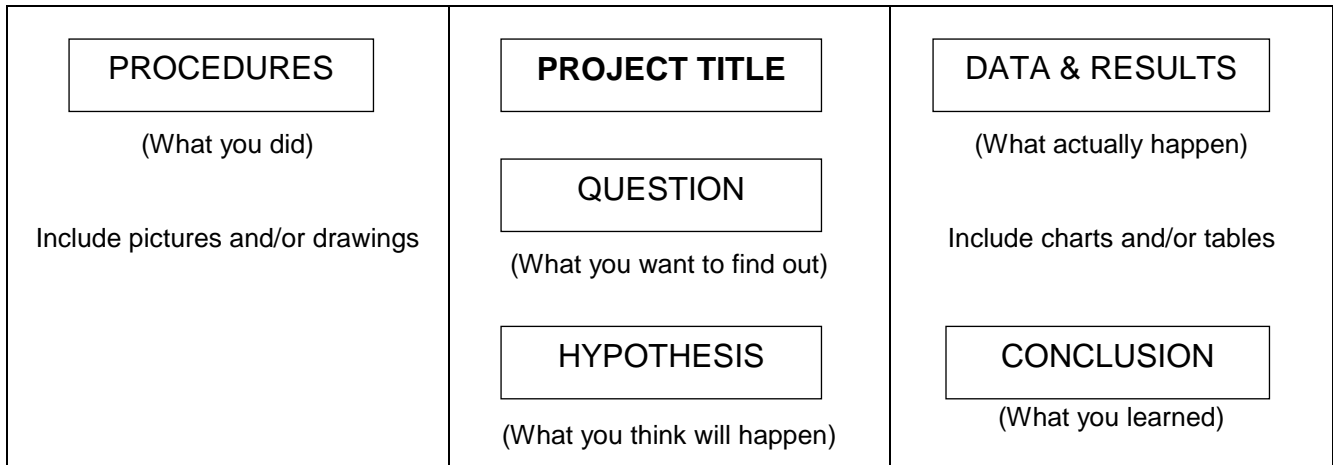
Students should answer the following questions on 2-4 pages and include at least 2 pictures.

1. What did you learn or find out by doing this experiment?
2. What is your conclusion?
3. It should answer your initial question.
4. Analyze all of your data.

The scientific method:

1. Ask a question
2. Do background research
3. Construct a hypothesis
4. Test hypothesis by experimenting
5. Analyze data and draw a conclusion
6. Report your results

### DISPLAY BOARD EXAMPLE



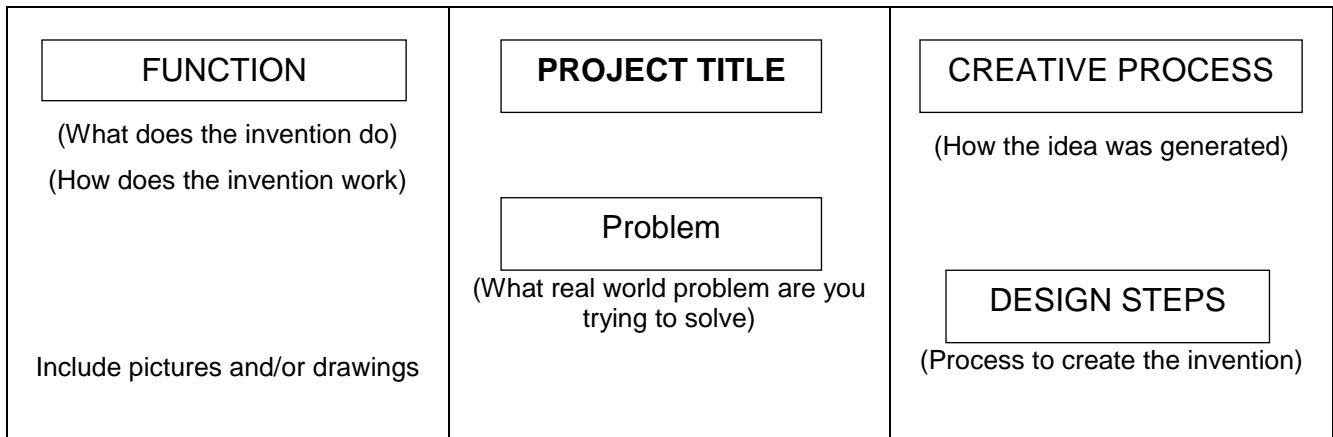
*Materials can be placed in front of the display.*

## Inventions – Create a new process or device to address a real world problem.

Students should answer the following questions on 2-4 pages and include at least 2 pictures.

1. What is the function of your invention?
2. How does your invention work?
3. How did you come up with the idea for your invention?
4. What were the sequential steps you took to build your invention?

### DISPLAY BOARD EXAMPLE



*Materials can be placed in front of the display.*