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

PROCEDURES (How did you take it apart) Include pictures and/or drawings.	**PROJECT TITLE** PRODUCT DESCRIPTION (How it works, what it is used for) DIAGRAM (Show where each component is in the product)	INDIVIDUAL COMPONENTS (Mount the individual components and label them. Include a description of the component function.)

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

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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

PROCEDURES (What you did) Include pictures and/or drawings	**PROJECT TITLE** QUESTION (What you want to find out) HYPOTHESIS (What you think will happen)	DATA & RESULTS (What actually happen) Include charts and/or tables CONCLUSION (What you learned)

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

FUNCTION (What does the invention do) (How does the invention work) Include pictures and/or drawings	**PROJECT TITLE** Problem (What real world problem are you trying to solve)	CREATIVE PROCESS (How the idea was generated) DESIGN STEPS (Process to create the invention)

Materials can be placed in front of the display.