

## Science Exhibits

1. Carefully read the section on Science Projects in the [\*Student Convention Guidelines\*](#).
2. Think about how the project might best be presented.

### **Collection**

The student displays and classifies natural items such as rocks, shells, insects, or plants. Collection projects typically are extensions of hobbies or other free-time activities.

### **Research (Experiment)**

These presentations allow students to pose a problem, design and perform an experiment to investigate that problem, record, and report their results.

### **Engineering**

Students design, build, and display an apparatus or instrument based on a scientific principle and describe in detail its use or function.

### **Theoretical (Exhibits from research)**

The student demonstrates a particular scientific principle, showcasing how the concept works, a scientific phenomenon, or how something is created naturally. Students will need to consult source materials from libraries, museums, and government agencies. In addition, experts such as scientists, healthcare workers, and county agents can be interviewed.

3. Understand what the judges expect by reviewing the judge's form.

### **Concept**

Definite purpose of theme

- Does it pose a question that can be investigated or measured?
- Does it pertain to the research or project conducted?
- Does it answer the purpose?
- Does it tell what the student is trying to determine with the project?
- Does the research pertain to the topic?
- Is it complete and thorough?
- Does it represent a diversity of sources?
- Have both print and non-print resources been consulted?

Creativity and originality

- Are the materials presented imaginatively?
- Is the project original?
- Is the display attractively designed?
- Is the project distinctive?
- Is interesting information included in the display?

Are the data or results interpreted appropriately?  
Has the student shown inventiveness?

Meets A.C.E. standards

Does it meet size constraints, and is it safe?  
Has the student adhered to the guidelines?

### **Scientific Thought**

Accuracy of display

Is the topic or problem stated clearly and completely?  
Have appropriate resources been cited?  
Is there an adequate solution or conclusion?

Total thought and effort

Is the experiment designed to answer a question?  
Has a systematic plan of action been stated?  
Is a project notebook provided with the display?

Degree of difficulty

Have experts been consulted?  
Have any problems or limitations been noted?  
Does the student understand all the facts and/or theories?

### **Workmanship**

Neatness

Does the project represent quality workmanship?

Handling of materials

Does the project represent the student's own work?

Handling of tools required

How much outside assistance did the student need?

Design of layout

Does the project indicate extensive planning?

### **Thoroughness**

Presentation

Is the project complete?  
Does the project include a display unit, three-dimensional items, and a written report?  
Were all potential sources of information consulted?

Information

Is a problem adequately answered or pursued?  
Does the project tell a complete story?

### **Display Clarity**

- Are titles and written descriptions legible?
- Are the data clearly presented?
- Can the average person understand the project?
- Is the written material well prepared?
- Are drawings and diagrams neat and attractive?

4. The report or log book is an important part of any science project and must include all of the following.

#### Procedures

- Is the purpose/hypothesis clearly stated?
- Are procedures listed in chronological order?
- Could the project/experiment be replicated?

#### Observations

- Do observations indicate what was done in the project?
- Did the student choose the best form for recording the observations?
- Are they sequential?

#### Conclusion

- Does it answer the purpose?
- If an experiment, does it adequately explain the results?

#### Bibliography

- Is it in proper form?
- Is it sufficient in terms of the scope of the project?