* Scoring Sheets

Note: you can use the scoring sheets provided or create your own so long as long as your judges follow the scoring rubric found on the next page.

Engineering Design

CREATIVE ABILITY Rubric (15 pts.)

Uniqueness
Project is truly unique and well thought out. This has not been seen at other fairs. It is not a copy of a design found on the internet. Project is completely appropriate for age of the student.

Thinking
Project shows the student's thinking and process. The student has adapted and molded the project to make it his/her own.

Student Work
Project depicts the student's own work.

ENGINEERING DESIGN Rubric (30 pts.)

Problem/Question (Ask) is clearly addressing a valid problem that applies to the real world. It is obvious that the idea is the student's own.

Imagine is complete, diagrammed and uses precise wording. It is directly addressing the stated problem and reflects prior knowledge.

Plan/Design is well-constructed and tests the problem. Steps are outlined in a step-by-step fashion that anyone could follow. All materials are listed.

Create Model is created and an attempt to make it completely functional has been made. If the model should fail, the reasons should be addressed in the Improve section.

Improve completely discusses the design and actual model and how well it worked towards solving the task at hand. If the model should be redesigned, there is adequate information about how it could be improved, and a diagram included if necessary with reasoning to explain why the redesign is better. All results should be clear and discuss any discoveries made.

Bibliography Sources are cited appropriately as needed.

UNDERSTANDING Rubric (30 pts.)

Information
Project is very explicit, indicating what the student has learned throughout the design.

Research
Student has used research and literature appropriately, with lists available of who helped, bibliography, books or articles used, etc.

Tell a Story
Student has a precise understanding of the project. Student is able to relate the experiment in an appropriate manner when talking to the judges.

DRAMATIC VALUE / TECHNICAL SKILL Rubric (10 pts.)

Construction

- Project is neatly done. Project is creative and organized. Attention has been paid to detail.
- Project is well written and easy to follow. Grammar is used correctly with no mistakes.
- Spelling and punctuation are correct.
- Sentences are structured, concise and detailed.
- Charts, graphs and/or other visuals are neatly organized, used, and arranged.
- Work is definitely thoughts and ideas of the student.

Appearance

- Project holds attention of the viewer at all times.
- Model is good working order and has attractiveness to its appearance.
- Headings are used consistently throughout the project.

CLARITY Rubric (15 pts.)

Communication
Student distinctively communicates the purpose of the experiment, how the experiment was handled, and how it concluded.

Information
Project information is explicit and in the appropriate logical order. Student's work is accurately displayed.

Understanding
Project is easy to follow and understand. Another person could build the model by using the available information from the student.

Engineering Design

Score:

CREATIVE ABILITY (15 pts.)

- Project is truly unique and well thought out. This has not been seen at other fairs. It is not a copy of a design found on the internet. Project is completely appropriate for age of the student.
- Project shows the student's thinking and process. The student has adapted and molded the project to make it his/her own. Project depicts the student's own work.

ENGINEERING DESIGN (30 pts.)

- **Problem/Question (Ask)** is clearly addressing a valid problem that applies to the real world. It is obvious that the idea is the student's own.
- **Imagine** is complete, diagrammed and uses precise wording. It is directly addressing the stated problem and reflects prior knowledge.
- **Plan/Design** is well-constructed and tests the problem. Steps are outlined in a step-by-step fashion that anyone could follow. All materials are listed.
- **Create** Model is created and an attempt to make it completely functional has been made. If the model should fail, the reasons should be addressed in the Improve section.
- **Improve** completely discusses the design and actual model and how well it worked towards solving the task at hand. If the model should be redesigned, there is adequate information about how it could be improved, and a diagram included if necessary with reasoning to explain why the redesign is better. All results should be clear and discuss any discoveries made.
- **Bibliography** Sources are cited appropriately as needed.

UNDERSTANDING (30 pts.)

- Project is very explicit, indicating what the student has learned throughout the design.
- Student has used research and literature appropriately, with lists available of who helped, bibliography, books or articles used, etc.
- Student has a precise understanding of the project. Student is able to relate the experiment in an appropriate manner when talking to the judges.

DRAMATIC VALUE / TECHNICAL SKILL (10 pts.)

Construction

- Project is neatly done. Project is creative and organized. Attention has been paid to detail.
- Project is well written and easy to follow. Grammar is used correctly with no mistakes.
- Spelling and punctuation are correct. Sentences are structured, concise and detailed.
- Charts, graphs and/or other visuals are neatly organized, used, and arranged.
- Work is definitely thoughts and ideas of the student.

Appearance

- Project holds attention of the viewer at all times.
- Model is good working order and has attractiveness to its appearance.
- Headings are used consistently throughout the project.

CLARITY (15 pts.)

- Student distinctively communicates the purpose of the experiment, how the experiment was handled, and how it concluded.
- Project information is explicit and in the appropriate logical order. Student's work is accurately displayed.
- Project is easy to follow and understand. Another person could build the model by using the available information from the student.

Total:

Comments: