

Design and Construction Judging Sheet

Team Name: _____ Division: MS HS
 School _____

Scoring Rubric

| Criteria | 5 | 4 | 3 | 2 | 1 |
|----------------------------------|---|--|--|--|---|
| Understanding of Concepts | Design indicates a clear and accurate understanding of related scientific principles. | Design indicates an accurate understanding of related scientific principles. | Design indicates a relatively accurate understanding of related scientific principles. | Design indicates a somewhat accurate understanding of related scientific principles. | Design does not indicate an understanding of related scientific principles. |
| Logical Design | Much research was conducted, scientific principles were used in the aircraft design and an appropriate, effective airfoil was used. | Research was conducted, scientific principles were used and an appropriate airfoil was selected. | Some Research was conducted, some scientific principles were used and an airfoil was used. | Minimal Research was conducted, hardly any scientific principles were used and use of an airfoil was not apparent. | It is not apparent that research was conducted or that scientific principles or an airfoil were used. |
| Visual Appeal | The aircraft is attractive, visually creative, neatly constructed and well laid out. | The aircraft contains 3 of the four specified criteria. | The aircraft contains 2 of the four specified criteria. | The aircraft contains 1 of the four specified criteria. | The aircraft does not contain any of the specified criteria. |
| Quality of Construction | The aircraft uses appropriate materials, materials were carefully selected, overall appearance shows care and attention to detail, and construction is exceptional. | The aircraft contains 3 of the four specified criteria. | The aircraft contains 2 of the four specified criteria. | The aircraft contains 1 of the four specified criteria. | The aircraft does not contain any of the quality of construction criteria. |
| Construction Requirements | Aircraft leads are correctly constructed from the motor to the tip of one of the plane's wings. | X | X | X | Aircraft leads are not correctly constructed. |
| Use of Materials | All criteria for materials was followed. | X | X | X | Criteria for materials was not followed; aircraft can test but not compete. |

Judges Scores

| Criteria | Judge 1 Scores | Judge 2 Scores | Judge 3 Score |
|---------------------------|----------------|----------------|---------------|
| Understanding of Concepts | | | |
| Logical Design | | | |
| Visual Appeal | | | |
| Quality of Construction | | | |
| Construction Requirements | | | |
| Use of Materials | | | |
| TOTAL (Out of 30) | | | |

Average Score _____

Use of Materials Criteria:

- Aircraft uses the required motor
- Aircraft does not exceed 36" (91cm) in length, width or height
- Aircraft contains no lighter than air devices
- Cargo does not provide lift increasing or drag reducing properties
- No commercial kits are used