



Science & Engineering Fair of Houston

### Special Award Judge's Worksheet

Category: \_\_\_\_\_

Division: \_\_\_\_\_

Criteria

I. Research Question

II. Design and Methodology

III. Execution

VI. Creativity

V(a) Presentation: Poster

V(b) Presentation: Interview

| Project Number | Abbreviated Title | Score each project relative to total points listed. |     |      |     |       |       |       |  | Comments |
|----------------|-------------------|---|-----|------|-----|-------|-------|-------|--|----------|
|                |                   | I.  | II. | III. | VI. | V.(a) | V.(b) | Total |  |          |
| 1              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 2              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 3              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 4              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 5              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 6              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 7              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 8              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 9              |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |
| 10             |                   | 10  | 15  | 20   | 20  | 10    | 25    |       |  |          |

Judge Signature: \_\_\_\_\_

Additional Comments

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## Science

### I. Research Question (10 pts)

- clear and focused purpose
- identifies contribution to field of study
- testable using scientific methods

### II. Design and Methodology (15 pts)

- well designed plan and data collection methods
- variables and controls defined, appropriate and complete

### III. Execution: Data Collection, Analysis and Interpretation(20 pts)

- systematic data collection and analysis
- reproducibility of results
- appropriate application of mathematical and statistical methods
- sufficient data collected to support interpretation and conclusions

### IV. Creativity (20 pts)

- project demonstrates significant creativity in one or more of the above criteria

#### V.a. Poster Presentation (10 pts)

- logical organization of material
- clarity of graphics and legends
- supporting documentation displayed

#### V.b. Presentation (25 pts)

- clear, concise, thoughtful responses to questions
- understanding of basic science relevant to project
- understanding interpretation and limitations of results and conclusions
- degree of independence in conducting project
- recognition of potential impact in science, society and/or economics
- quality of ideas for further research
- for team projects, contributions to and understanding of

## Engineering

### I. Research Question (10 pts)

- description of a practical need or problem to be solved
- definition of criteria for proposed solution
- explanation of constraints

### II. Design and Methodology (15 pts)

- exploration of alternatives to answer need or problem
- identification of a solution
- development of a prototype/model

### III. Execution - Construction and Testing (20 pts)

- prototype demonstrates intended design
- prototype has been tested in multiple conditions/trials
- prototype demonstrates engineering skill and completeness

### IV. Creativity

- project demonstrates significant creativity in one or more of the above criteria

#### V.a. Poster (10 pts)

- logical organization of material
- clarity of graphics and legends
- supporting documentation displayed

#### V.b. Interview (25 pts)

- clear, concise, thoughtful responses to questions
- understanding of basic science relevant to project
- understanding interpretation and limitations of results and conclusions
- degree of independence in conducting project
- recognition of potential impact in science, society and/or economics
- quality of ideas for further research
- for team projects, contributions to and understanding of project by all members