Project Title: _____

Project #: _____ **Category:** **EXPERIMENT**

Name(s): _____ **School:** _____

JUDGES: Use this rubric to assign a **Level (1, 2, 3, or 4)** to **Parts A, B, and C** for the project.
***** ½ marks are acceptable. Students will only see the feedback portion, NOT the scores.*****

EXPERIMENT: Undertake an investigation to test a scientific hypothesis using the experimental method. At least one independent variable is manipulated; other variables are controlled.

PART A: SCIENTIFIC THOUGHT			
LEVEL 1	**LEVEL 2**	**LEVEL 3**	**LEVEL 4**
Replicates a known experiment to confirm previous findings.	**Extends a known experiment** with modest improvements to the procedures, data gathering and possible applications.	Devises and executes an original experiment. **Identifies the significant variables and attempts to control them**. Analyzes the results using appropriate **arithmetic, graphical or statistical methods**.	Devises and carries out **original experimental research** in which **most significant variables are identified and controlled**. The **data analysis is thorough and complete.**

PART B: ORIGINALITY & CREATIVITY			
LEVEL 1	**LEVEL 2**	**LEVEL 3**	**LEVEL 4**
The project design is **simple** with little evidence of student imagination. It can be found in books or magazines.	The project design is simple with **some evidence of student imagination**. It uses common resources or equipment. The topic is a current or common one.	This **imaginative** project makes creative use of available resources. It is well thought-out and some aspects are **above average**.	This **highly original** project demonstrates a novel approach. It shows **resourcefulness** and **creativity** in its design, use of equipment, construction and/or analysis.

PART C: COMMUNICATION (visual display + oral presentation + project report with background research + logbook			
LEVEL 1	**LEVEL 2**	**LEVEL 3**	**LEVEL 4**
Most or all of the four elements are **simple**, **insubstantial** or **incomplete**. There is little evidence of attention to effective communication. In a pairs project, one member may have **dominated** the presentation.	**Some** of the four elements are **simple**, **insubstantial** or **incomplete**, but there is **some evidence** of student attention to effective communication. In a pairs project, one member may have made a **stronger** contribution to the presentation.	**Most** of the four elements are **complete** and **demonstrate attention to detail and substance**. The communication components are well thought out and executed. In a pairs project, both members made an **equitable** contribution to the presentation.	All elements are complete and **exceed reasonable expectations** of a student at this age/grade. The visual display is logical and self-explanatory. The exhibit is attractive and well laid out. Both project report and logbook are informative and written clearly; the bibliography extends beyond web-based articles. The oral presentation is clear, logical, and enthusiastic. In a pairs project, both members contributed **equitably** and **effectively** to the presentation.

PART A SCIENTIFIC THOUGHT (1 – 4) ☐ **PART B ORIGINALITY & CREATIVITY** (1 – 4) ☐ **PART C COMMUNICATION** (1 – 4) ☐ = **TOTAL SCORE** (max. 12) ☐

JUDGES FEEDBACK FOR STUDENTS

Students will view this feedback <u>after</u> the fair. Please leave comments!

What was done well:

Areas to Improve:

Quick alerts: If this project were to be revised, focus on…

- ❑ level of difficulty vs. your age & training
- ❑ personal knowledge of subject
- ❑ background research on the topic
- ❑ application & synthesis of information
- ❑ experimental design
- ❑ use of control group
- ❑ identification of variables
- ❑ choice of materials/chemicals
- ❑ construction & design
- ❑ processes used
- ❑ care & precision of observations
- ❑ care & precision of data recording
- ❑ analysis of data
- ❑ display of data
- ❑ sources of error
- ❑ attention to detail
- ❑ oral presentation
- ❑ visual presentation (layout, graphics)

Other Comments: