## Long Island Science and Engineering Fair Middle School Judging Rubric

Project #/Title: Student Names: Total: /11 Statement of Problem/Question/Hypothesis (11 pts.) Stated in a way that cannot be answered yes/no (2 pts.) • • Hypothesis NOT in the form of a question (2 pts.) • Statement gives enough information to understand prediction(s) (2 pts.) • Quality/sophistication of problem/question (5pts.) Variables addressed (4 pts.) Total: /4 • Independent-factor being tested (1 pt.) • Dependent-factor which responds (1pt.) • Controlled-factor(s) held constant (2pts.) Materials (in logbook or on display board) (3 pts.) **Total:** /3 • Materials used in the project are listed (1pt.) • Materials are appropriate for the project (2 pts.) **Procedure (15 pts.) Total:** /15 • Procedure appropriate to address stated problem/question/hypothesis (5 pts.) • Steps in procedure were carried out appropriately (4 pts.) • Diagrams, illustrations, picture or flow charts show procedure in action (4 pts.) • Evidence of repeated trials or appropriate sample size (2 pts.) Total: /15 Data (15 pts.) • Raw data available with appropriate units (in logbook) (2 pts.) • Data table is well organized and properly labeled (2 pts.) • Charts/graphs are present & appropriate for data (4 pts.) • Axes on graphs are properly labeled (2 pts.) • Sample calculations are shown (in logbook) (1 pt.) • Unusual data points (if collected) are included (2 pts.) • Data collected is appropriate for stated problem/hypothesis (2 pts.) Data Interpretation/Sources of Error (10 pts.) <u>Total:</u> /10 • Data patterns and trends are discussed and interpreted (4 pts.) • Unusual data points discussed (if present) (2 pts.) • Possible sources of error and effects of the error(s) are identified & discussed (4 pts.) **Total:** /10 Conclusion (10 pts.) • Hypothesis is evaluated and accepted/rejected based on the data (4pts.) • Suggestions for improvement of experiment/project are offered (2 pts.) • Suggestions for future experimentation/projects are discussed (2 pts.) • Practical application (real world relevance) of work are discussed (2 pts.) **Quality of Logbook & Presentation (32 pts.) Total:** /32 • Display board is neat, well organized, and shows attention to detail (12 pts.) • Oral presentation: experiment is presented in a concise, logical manner (12 pts.) • If a group project: all members participated equally in the presentation (4 pts.) • Bibliography present-appropriate for project (4 pts.)