SARSEF
Science Judging Guidelines
Elementary and Middle School

The following evaluation criteria will be used for judging at SARSEF. Judging is conducted using these guidelines, with approximate values assigned to the research question, design and methodology, execution, creativity, and presentation. This may assist you in evaluating and each of these categories, however, the points are provided as guidelines, only.

Each section includes key items to consider for evaluation. Students are encouraged to design their posters in a clear and informative manner to allow thorough evaluation. Judges should take into consideration the grade level when scoring. Examine the student notebook, if present. For Elementary Class Projects, look for evidence that every child in the class had some responsibility or did part of the project.

I. Research Question (15 pts.)
___ clear and focused purpose
___ identifies contribution to field of study
___ testable using scientific methods (follows rules and SRC)

II. Design and Methodology (25 pts.)
___ well-designed plan and data collection methods
___ variables and controls defined, appropriate and complete

III. Execution: Data Collection, Analysis and Interpretation (25 pts.)
___ systematic data collection and analysis
___ reproducibility of results
___ sufficient data collected to support interpretation and conclusions
___ appropriate application of mathematical methods for comparison

IV. Creativity (20 pts.)
(A creative project demonstrates imagination and inventiveness. Such projects often are ones that are about something that the student personally cares about, have not been done hundreds of times before or frequently listed in Science Fair idea books or web. Creative projects offer different perspectives that open up new possibilities or new alternatives.
___ project demonstrates significant creativity in one or more Criteria I-III or V
___ idea appears novel – at least to the student (not copied or seen repeatedly)
___ idea appears to be something that student cares about

V. Board/Poster Presentation (15 pts.)
___ evidence of scientific process, understanding of basic science relevant to project
___ colorful, creative and logical organization of display
___ clarity of graphs, legends & graphics
___ supporting documentation displayed
___ understanding limitations of results and conclusions
___ recognition of potential impact in science, society and planet/world
___ thought through implications, ideas for further research
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I. Research Problem (15 pts.)
   ___ description of a practical need or problem to be solved
   ___ definition of criteria for proposed solution
   ___ explanation of constraints

II. Design and Methodology (25 pts.)
   ___ exploration of alternatives to answer need or problem
   ___ identification of a solution
   ___ development of a prototype/model

III. Execution: Construction and Testing (25 pts.)
   ___ prototype demonstrates intended design
   ___ prototype has been tested in multiple conditions/trials
   ___ prototype demonstrates engineering skill and completeness

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