SARSEF SCIENCE
Judging Guidelines for Gr. 3-5

The following evaluation criteria will be used for judging at SARSEF. This may assist you in evaluating each of these categories, however, the points are provided as guidelines only. Each section includes key items to consider.

I. Research Question (15 pts.)
___ clear and focused purpose
___ states what is the question/problem that needs solving in their life, community, world?
___ follows rules, gets permission, question is testable using scientific process
___ the answer is not already obvious or out there if a simple search is conducted
___ is reasonable, follows safety rules, asks for and receives appropriate permission

II. Design and Methodology (25 pts.)
___ has a step by step plan and data collection methods that are consistent
___ has a test group and a control group (if appropriate), or multiple groups for testing
___ identification of variables that cannot be controlled but could affect the results
___ clearly written, numbered step by step plan to follow so other could do the same test
___ considered the appropriate # of subjects, adequate # of trials are planned

III. Execution: Data Collection, Analysis and Interpretation (25 pts.)
___ followed same planned method/process each time - not too much variation
___ enough data collected to reasonably answer question, allow for analysis of data
___ appropriate application of mathematical methods for comparison – use of fractions, averaging
___ forms a conclusions based on the data and evidence, refers to data
___ recognition of potential impact of what was done
___ refers back to the original question or problem, ideas for further research
___ include what challenges were presented, can say what they wish they could do next time

IV. Creativity (20 pts.)
A creative project demonstrates imagination and inventiveness. Such projects are ones that the student personally cares about, have not been done hundreds of times before or frequently listed in Science Fair idea books or web.
___ project demonstrates particular creativity in one or more Criteria I, II, III or V
___ idea appears novel – at least to the student (not almost the same or seen repeatedly)
___ idea appears to be something that student genuinely cares about, passion or enthusiasm is communicated

V. Poster Board (15 pts.)
___ understanding of basic science relevant to project, evidence of process that was followed
___ colorful, creative and logical organization of display (handwritten is still acceptable)
___ graphics (photo or drawing) including a basic graph of some kind
___ extra points for mentioning references, supporting documentation listed on board or notebook
SARSEF ENGINEERING  
Judging Guidelines Gr. 3-5

The following evaluation criteria will be used for judging at SARSEF. This may assist you in evaluating each of these categories, however, the points are provided as guidelines only. Each section includes key items to consider.

I. Research Problem (15 pts.)

___ project has a clear and focused purpose
___ states what is the question/problem that needs solving in their life, community, world?
___ the answer is not already obvious or out there if a simple search is conducted
___ is reasonable, follows rules, asks for and receives appropriate safety precautions
___ definition of criteria for proposed solution, limitations

II. Design and Methodology (25 pts.)

___ exploration of several alternatives to answer an actual need/problem
___ identification of a possible solution that is practical, reasonable, doable
___ realistic plan for development of an actual prototype/model for testing
___ step by step plan and consistent data collection methods
___ recognition that there are variables that may NOT have been anticipated but could affect the results
___ plans appropriate # of models, adequate # of planned trials and retrials

III. Execution: Construction and Testing (25 pts.)

___ prototype actually demonstrates the intended design or variation
___ prototype was tested in more than one condition, and in multiple trials
___ followed the plan for testing, not too much variation in conditions, tried to do the same thing each time
___ documents changes made based on results
___ forms final conclusions based on the data
___ can say what they wish they could do next time, may include what challenges were presented

IV. Creativity (20 pts.)

A creative project demonstrates imagination and inventiveness. Such projects are ones that the student personally cares about, have not been done hundreds of times before or frequently listed in Science Fair idea books or web.

___ project demonstrates significant creativity in one or more Criteria I, II, III or V
___ idea appears novel – at least to the student (not almost the same or seen repeatedly)
___ idea appears to be something that student cares about, passion and enthusiasm is communicated

V. Poster Board (15 pts.)

___ clear communication of basic engineering design relevant to overall project
___ colorful, creative and logical organization of display (handwritten is still acceptable)
___ graphics (photo or drawing) including a basic graph or chart of some kind
___ extra points for references mentioned, listed on board or in notebook