

SARSEF SCIENCE
Judging Guidelines for Gr.1-2

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.)

- question is something that this child or group of children genuinely might want to know
- gives a reason for why this child wants to do the project
- is authentic to this age level
- question is asked clearly and is something that might be possible for a child to answer at this level
- question is narrowed down in scope, specific (can include other parts but not too many)

II. Design and Methodology (25 pts.)

- evidence that the child thought of what needs to happen in order, numbered step by step plan ("1., 2., 3....")
- plan for collecting data – i.e. place to record time or number observed, or illustrations
- appropriate # of subjects i.e. plans to watch more than one girl and boy race, measure several ages' reactions
- plans adequate # of trials i.e. rolls different balls several times, watches birds in trees for several days
- cares about safety of others, nature, self

III. Execution: Data Collection, Analysis and Interpretation (25 pts.)

- followed the plan without too much variation i.e. does not switch ways of doing things each time
- evidence of counting up to 100, basic math such as adding to find totals and subtracting to find differences
- compares using words like "Greater than" and "Less than" or "More" and "Fewer" or "Larger" and "Smaller"
- evidence that each child had their "hands-on" most parts of the project, were actively present, involved
- says what the answer to their question was, forms conclusion (more points if based on their collected data)
- recognizes the meaning of what was found - mentions why they did the project in the first place
- when asked, can say what they **wish** they could do next time or if there were no limits (i.e. money, 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 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 this child
- idea appears to be what student genuinely cares about as evidenced by reason given for doing project
- there is passion about the project: reason, discussion of the plan, or end results

V. Poster Board (15 pts.)

- evidence the child experienced a science-related concept or skill
- evidence that a child did some parts of this project on their own or was actively engaged in all parts
- evidence of the basic scientific process (question, test, results, conclusion)
- colorful, creative and logical organization of display (handwritten is fine, expected)
- student-made illustration of some part of the process, graphs can be made out of Legos, M&M's, etc.

SARSEF ENGINEERING

Judging Guidelines Gr. 1-2

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.)

- problem is something that this child or group of children genuinely might want to solve
- gives a reason for why this child wants to solve this problem
- problem is authentic to this age level
- problem is actually something that might be possible for a child at this level to solve with assistance
- problem is narrowed down in scope, specific (can include other parts but not too many)

II. Design and Methodology (25 pts.)

- identifies a possible solution after observing/studying the problem
- comes up with an idea (drawing or notes about their plan)
- develops a prototype/model that is different from what exists already
- evidence that the child thought of what needs to happen in order, numbered step by step plan ("1., 2., 3....")
- plans at least one model variation, retrieval
- plan for collecting data – i.e. place to record times or numbers observed, or illustrated changes to prototype
- appropriate # of subjects i.e. plans to measure how angle of ramps changes distance of several different balls
- plans adequate # of trials i.e. tries different angle of ramp, each several times, with several trials for each ball

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

- prototype/model follows plan each time without too much variation, tried to "stick to the plan"
- evidence that each child had their "hands-on" most parts of the project, observes safety checks
- evidence of counting up to 100, basic math such as adding to find totals and subtracting to find differences
- compares using words like "Greater than" and "Less than" or "More" and "Fewer" or "Larger" and "Smaller"
- shows changes to prototype made, based on results
- says what the best solution to their problem was (more points for if based on their collected data)
- recognizes the meaning of what was found - mentions why they did the project in the first place
- when asked, can say what they **wish** they could do next time, what hope to find/do some day

IV. Creativity (20 pts.)

A creative project demonstrates imagination and inventiveness. Such projects are ones that the student personally cares about, have not been 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 this child
- idea appears to be what student genuinely cares about as evidenced by reason given for doing project
- there is passion about the project: reason, discussion of the plan, or end results

V. Poster Board (15 pts.)

- evidence the child experienced a science-related concept or skill
- evidence that a child did some parts of this project on their own or was actively engaged in all parts
- evidence of the basic scientific process (question, test, results, conclusion)
- colorful, creative and logical organization of display (handwritten is fine, expected)
- student-made illustration of some part of the process, graphs can be made out of Legos, M&M's, etc.