



# Grading Rubric: Science Project Question

Name: _____ Date: _____			
<b>0 = No Evidence    1 = Some Evidence    2 = Clearly Evident</b>			
Is the topic original, or does the project present an original variation to a commonly done project?	<b>0</b>	<b>1</b>	<b>2</b>
Are there at least 3 sources of offline information that can easily be found on the subject?	<b>0</b>	<b>1</b>	<b>2</b>
Are the changes to the independent/dependent variables measurable using a number that represents a quantity such as a count, length, width, weight, voltage, time, etc.? <b>Or</b> , just as good, is the variable one that is simply present or not present? For example, <ul style="list-style-type: none"> <li>• Lights <b>ON</b> in one trial, then lights <b>OFF</b> in another trial,</li> <li>• <b>USE</b> fertilizer in one trial, then <b>DON'T USE</b> fertilizer in another trial.</li> </ul>	<b>0</b>	<b>1</b>	<b>2</b>
Is it possible to control other factors that might influence the data that is collected during the experiment, so that they do not interfere with the results?	<b>0</b>	<b>1</b>	<b>2</b>
Is the experiment safe to perform?	<b>0</b>	<b>1</b>	<b>2</b>
Does the student have all the materials and equipment needed for the project, or are they able to obtain them quickly and at a reasonable cost? For human behavior or sociology projects, does the student have access to a large enough sample of people to properly administer the survey?	<b>0</b>	<b>1</b>	<b>2</b>
Does the student have enough time to do the experiment more than once before the science fair?	<b>0</b>	<b>1</b>	<b>2</b>
Does the project meet all the rules and requirements for the science fair?	<b>0</b>	<b>1</b>	<b>2</b>
Has the student checked to see if the project will require SRC (Scientific Review Committee) approval?	<b>0</b>	<b>1</b>	<b>2</b>
Has the student avoided the bad topic areas listed in the table below?	<b>0</b>	<b>1</b>	<b>2</b>
<b>Total Score</b> (To convert to 100 points scale: Total Score x 5 )	<u>          </u> / 20		
<b>Comments:</b>			

Topic to Avoid	Why
Any topic that boils down to a simple preference or taste comparison. For example, "Which tastes better: Coke or Pepsi?"	Such experiments don't involve the kinds of numerical measurements we want in a science fair project. They are more of a survey than an experiment.
Most consumer product testing of the "Which is best?" type. This includes comparisons of popcorn, bubblegum, make-up, detergents, cleaning products, and paper towels.	These projects only have scientific validity if the Investigator fully understands the science behind why the product works and applies that understanding to the experiment. While many consumer products are easy to use, the science behind them is often at the level of a graduate student in college.
Any topic that requires people to recall things they did in the past.	The data tends to be unreliable.
Effect of colored light on plants	Several people do this project at almost every science fair. You can be more creative!
Effect of music or talking on plants	Difficult to measure.
Effect of running, music, video games, or almost anything on blood pressure	The result is either obvious (the heart beats faster when you run) or difficult to measure with proper controls (the effect of music).
Effect of color on memory, emotion, mood, taste, strength, etc.	Highly subjective and difficult to measure.
Any topic that requires measurements that will be extremely difficult to make or repeat, given your equipment.	Without measurement, you can't do science.
Any topic that requires dangerous, hard to find, expensive, or illegal materials.	We care about your safety and your parents' pocketbook.
Graphology or handwriting analysis	Questionable scientific validity.
Astrology or ESP	No scientific validity.
Any project in violation of state law, federal law, state science fair rules, or International Science & Engineering Fair rules.	<p>In brief, you may not do a project that involves:</p> <ul style="list-style-type: none"> <li>• Unacceptable risk (physical or psychological) to a human subject</li> <li>• Collection of tissue samples from living humans or vertebrate animals</li> <li>• Drugging, pain, or injury to a live vertebrate animal</li> <li>• Use of illegal or prohibited materials</li> </ul>