

SCIENCE FAIR PROJECT: PROPOSAL OUTLINE

Rough Draft

<p>Once you find a general topic that interests you, write down the question that you want to answer. A scientific question usually starts with: How, What, When, Who, Which, Why, or Where. For example, "How much current does a robot's arm use to lift a weight?" What is your project question?</p>	
<p>Purpose: Write 1-2 full sentences stating the problem.</p>	
<p>Summary. Briefly describe the project in 2-4 sentences.</p>	
<p>Why do you want to conduct the experiment? (Rationale)</p>	
<p>What do you hope to learn about? (Research Problem)</p>	
<p>What do you predict will happen? (Hypothesis)</p>	
<p>A "fair test" requires that you change only one factor (variable) and keep all other conditions the same. If you cannot design a fair test, then you should change your question.</p>	<p>Can you design a fair test to answer your question?</p> <p>YES NO</p>
<p>Your science fair project question should involve factors or traits that you can easily measure using a number. Or, factors or traits that are easily identified, like colors.</p>	<p>What will you measure?</p>
<p>The experiment should measure changes to the important factors (variables) using a number that represents a quantity such as a count, percentage, length, width, weight, voltage, velocity, energy, time, etc. Or, just as good might be an experiment that measures a factor (variable) that is simply present or not present. For example, lights ON in one trial, then lights OFF in another trial, or USE fertilizer in one trial, then DON'T USE fertilizer in another trial. If you can't measure the results of your experiment, you're not doing science!</p>	<p>What will you change? (IV)</p>
<p>You must be able to control other factors that might influence your experiment, so that you can do a fair test. A "fair test" occurs when you change only one factor (variable) and keep all other conditions the same.</p>	<p>What will you NOT change, just measure/observe? (DV)</p>

