

Science Fair Problem Idea Sheet

A GOOD SCIENCE PROBLEM IS WRITTEN AS A QUESTION AND ONE THAT YOU CAN TEST TO FIND THE ANSWER!

No Volcano or Solar System Models!!! They are models, not experiments!

Online Source for Science Fair Projects and Guidelines:

<http://kids.yahoo.com>

<http://www.sciencebuddies.org/>

District Science Website: <http://www.oakdale.k12.ca.us> Click on Science Fair 2011

How does the size of a sponge affect the amount of water absorbed?
How does the size of the holes in a sponge change the amount of water it can absorb?
How does the material from which a sponge is made affect the amount of water absorbed?
Is the amount absorbed by a sponge affected by the type of fluid being absorbed?

*How is the cost of a plastic garbage bag related to its strength?
How is the strength of a plastic garbage bag affected by exposure to sunlight?
How is the strength of a plastic garbage bag affected by freezing?*

How does temperature affect the rate of evaporation?
How do additives affect the rate at which water evaporates?
How does the size of its container affect the rate at which water evaporates?
How does the viscosity (thickness) of a liquid affect its evaporation rate?

*How does the position in which a seed is planted affect the way its seedling sprouts?
How does the sprouting time for a seed change with planting depth?
How does the sprouting time for a seed vary with its size?
How does sprouting time vary with soil temperature?*

How does the speed of a cart rolling down a ramp change with the angle of the ramp?
How does the speed of a cart rolling down a ramp change with the mass of the cart?
How does the speed of a cart rolling down a ramp change with the size of the wheels?
How does the speed of a cart rolling down a ramp change with the placement of mass in the cart?
How does the speed of a ball rolling down a ramp change with the kind of material from which the ball is made?
How does the speed of a ball rolling down a ramp change with different ramp surfaces?

*How does the color of a surface affect the rate at which it absorbs or releases heat?
How does the texture of a colored surface affect the rate at which it absorbs or releases heat?
How does the color of light affect the rate at which it is absorbed by a surface?*

How does adding coils of wire to an electromagnet increase its strength?
How does the material from which an electromagnet core is made affect its strength?
How does the voltage applied to an electromagnet affect its strength?
How does the force between a piece of metal and a magnet vary with distance?

*Are thicker rubber bands stronger? If yes, how does the strength of a rubber band vary with thickness?
How does the strength of a rubber band vary with temperature?
How does using a rubber band affect its strength?
How does exposing a rubber band to sunlight or chemicals or heat change its strength?*

How does temperature vary with height above the ground?
How does the kind of vegetation in an area affect the temperature near the ground?
How does the kind of surface (concrete, asphalt, grass, dirt, water, etc.) affect the way temperature varies near ground level?

*How does the type of earth material affect the rate of erosion or type of erosional patterns?
Does the shape of the container affect the freezing rate/thawing rate of water?
Does smell help you taste?
How does that type or quality of water affect the amount of lather my shampoo creates?
How does the size of the pulley affect the load it can lift?
How do different pulley systems affect the load they can lift?*

Science Fair Ideas from Oakdale Students....

Is it possible for heat to cause movement?
What material makes the best insulator?
Which household fabric is the most flammable?
What material makes the best animal tracks?
Do clean hands really make a difference when handling food?
Do all people grow at the same rate?

*Which type of plant material dyes eggs best (marigold flowers, pecan shells, yellow onion skins, chopped beets, red cabbage, blueberries)
Can I transfer copper from pennies to a paperclip?
Will magnets hold more weight attracting or repelling?
How accurate is the Channel 10 weather forecast?
Do oranges of the same variety from the same tree and about the same size have the same number of segments?*

How does the type of string/wire affect the transfer of sound in a cup/string telephone?
How does the type of cup affect the transfer of sound in a cup/string telephone?
What color candle burns the fastest?
Does the color you see affect your taste?
What type of pencil will last the longest when doing classroom assignments?
How will the size/shape/weight of a ball affect the distance it will travel (slingshot/catapult)?