



Science Fair Projects

6th Grade to 8th Grade

Title: Plants

"Pyramid Power"

Stating the Problem - The Big Question

It would be very difficult and take a lot of time to test all the claims that have been made concerning the special powers of pyramids. One of the easier and more interesting claims to test is that "plants grown under a pyramid will grow stronger and healthier." Write a question that asks what you want to learn from your scientific investigation.

Forming a Hypothesis - A Smart Guess

Do you believe in the power of the pyramids? What do you think your scientific investigation will prove? Write a sentence that predicts what your investigation should prove.

Planning the Procedure

Before a scientist plans the procedure for a scientific investigation, he or she reads about what others have learned about the topic. There may not have been very many scientific investigations in the area of pyramid power, but there is much written about the ancient pyramids. Go to the library to research the topic of the pyramids. Why did some early cultures, like the ancient Egyptian kings, choose this shape for their tombs?

What kind of pyramid will you use when doing your investigation? Pyramids can be made from many kinds of materials and in many different sizes. One way to make a simple pyramid is to connect drinking straws together by inserting paper clips in the ends of the straws and linking them together, as pictured here. The faces, or sides, of this kind of pyramid can be left open or covered with 3wax paper or plastic wrap. You could also construct clear plastic pyramids out of sheets of Plexiglas. Caution: Making pyramids out of window glass is difficult and dangerous. Ready-made pyramids can be purchased from science supply houses.

Make a detailed list of materials that will be needed for the experiment.

This project is from Daryl Vriesenga's book, *Science Fair Projects, Grades 4-6*, Michigan, Schaffer Publications, 1990. The Guide is available on line at: SchooDoodle.com



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When you design the experiment to test your hypothesis, it is very important that your experiment is done using a control. For example, if you are going to measure the difference in the growth of plants grown under a pyramid (the experimental group) with those grown without the aid of a pyramid (the control group), make sure that the controlled variables for both plants are the same. Name the controlled variables that will be kept the same in your procedure section.

Write a step-by-step description of your experiment. Be very specific. Include detailed directions, as such as, how often the plants will be watered, the amount of light the plants will receive, how long you will let the plants grow etc.

Make a chart, table or log on which to keep a daily record of your experiment. You might use something like this:

Chart

Height/Condition	Experimental Group Plants		Control Group Plants	
	#1	#2	#1	#2
Day 5				
Day 10				
Day 15				
Day 20				
Day 25				

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Drawing a Conclusion

Before you started growing your plants, you made a prediction about the effects of pyramids on plant growth. How accurate was your prediction? Were the experimental plants bigger, stronger and healthier than the control plants? Write a report that explains what you found out about pyramid power. Your report should include all of the steps in the scientific method: (1) your *Big Question*, (2) your *hypothesis*, (3) a *description* of your experiment, including a list of materials, (4) the *tables*, charts and written comments about the results of the experiment and (5) your *conclusion*.

Display

An informative display is an excellent way to share your project. Many people would be interested in seeing the results of your experiment for themselves. Along with the charts that describe your experiment, include samples of the plants that you grew with and without pyramid power. You should also include your report and other information that would make your display interesting.