Science Fair Project

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Assigned: Jan.12th ___/100
Due: Jan 27th

Science Fair topics template

TITLE A

Step-: 2 Project Ideas Proposal

Assigned: 10/27

Deadline: 11/05

1st Idea: Exercise mechanism to create energy

(Please circle one: engineering/science)

2nd Idea: Striking mechanism to create energy

(Please circle one: engineering/science)

My Final idea: Water mechanism to create energy

Question: Is this going to work?

Resource(s): 1 battery, copper cables to conduct energy, 1 hose, 1 generator, and spoons(maybe).

Science Fair Topics - Draft

Write down the topic you chose:

Water mechanism to create energy

What made you want to pick this topic?

I like to create machines for science or for engineering

Do you find these topics interesting? Why?

Yes, because one of my favorite things since I was a kid was the creation of machines to help with science or for the future of humanity, and this is exactly what I want, maybe this machine is simple and everyone can do it, making it less valuable, but the point is to create energy without creating any kind of pollution.

Science Fair Topic and Question - Final

Which topic did you choose?

Water mechanism to create electricity, but with recycled water.

What question(s) are you testing?

Is it possible to charge a phone's battery with this machine? How long it takes to fully charge a phone's battery? Is this machine creating pollution? How much water is needed to fully charge a normal phone's battery? Is it able to turn on at least a bulb?

How are you going to test your hypothesis?

Doing this experiment several times with a bulb and sometimes I might change the amount of water used.

Background Summary

Find information and record the sources you use that help you make an educated guess to your testable question.

Write a 1 paragraph summary for each of your sources.

Tip: Make your hypothesis after this is done

I'm doing this project because I want to show people a away to create energy without creating pollution in the world or other stuff like that, and also that is safe for everyone. People would have a better and safe form of life with this type of clean energy. The water used in the mechanism can be reused infinite times while it's used correctly, which means recycled energy, but how it's going to generate energy? The project is made by a wheel, anything that has water, a generator, and a battery to see if the project is creating energy. The water is going to move the wheel, creating kinetic energy, and that energy will pass through the generator to transform itself into electrical energy. Finally, that electricity will pass through some cables to get into the bulb, and with success, the battery will be charged in a full day or less.

Step 3 Background Research Source 1

TITLE B

Source 1

Title: Recycled Water = Recycled Electricity

Summary: I'm gonna use water to create kinetic energy in a wheel, and then to transfer that energy into a generator and create electrical energy, and finally transfer it into a battery and create potential energy.

What's the big idea about the article?

This mechanism is going to create electricity in a easier and safe way for humanity and the entire world. There are other ways to create energy like create a nuclear power plant, but that can kill tons of people, animals, and plants, sometimes a whole continent. While this mechanism can't do anything like that, making it better.

In complete sentences, describe a few details (who, what, where, when, why, and how)

How is a little mechanism like this one going to create enough electricity to show the whole world to give them ideas to create bigger mechanism to create electricity for the entire world? This machine is just an example and a model about how people can create and use electricity in a better way for the world, and give them an idea about how to create big mechanisms like this one.

Source 1 Bibliography

If the source is a book, Title of the book: The Future of the World		
Author's Name: Jorge Mange		
Date Published: 11 - 5 - 25		
Place Published: Tucson AZ	Publisher: Jorge Javier Mange Espinoza	Date Published: 11 - 5 - 25
Edition: (if applicable)		
Page Number(s): 67		

Background Research Source 2

If this source is a: _____ Magazine ___YES___ Newspaper _____ Other

Title of the publication: Teen discovers a new type of energy that will change the world.

Title of Article:
The power of science and creativity.

Author's Name:
Jorge Mange

Date Published:
11-14-25

Edition: Original Volume Number: 1
Page Number(s): 67

(if applicable) (periodicals or encyclopedias)

This source is a: ___YES___ Website _____ Other

The URL is https://power.of.science.com/presentation

Last Date of Access: 12-31-2999

Title of Article: Power of Science

Author's Name: Jorge Mange
[=

Date of Article: 11-14-25

Science Fair Hypothesis

TITLE B

Hypothesis: Use your background research to help you create a HYPOTHESIS that predicts the outcome of your experiment

What is your Hypothesis?

My hypothesis is that my mechanism is going to work. I think it will generate enough energy to turn on a bulb to prove people the power of creativity, science, and prove that my machine will create clean energy.

Tip: Make your Hypothesis after the background research

Materials

Make a list of all the Materials you used for this experiment

5 Caps

1 Generator

1 Bulb

Any water source(hose, washbasin, water bottle, etc.)

LED cables

Cardboard

1 Empty water bottle

Make a list of all the Materials you used for this experiment

Procedure

What are the steps you followed during this experiment?

Write all of them down. Make sure they are exactly what you followed while doing the experiment.

First, I built the model, obviously, and after that, I turned on the hose valve. When I made that, the water started traveling across the channel that I created with cardboard until it reached the wheel. The wheel started moving, activating the generator with the kinetic energy from the water that was transferred to the wheel. The kinetic energy from the generator transformed it into electrical energy, and that energy passed through some cables, which those cables were connected to the bulb, and it charged. And the water that was moving the wheel fell into a glass, and that water can be used to repeat the process again or use it for other stuff because it's clean. And that's how you can make recycled and clean electricity.

Variables

What are the Variables of your experiment? Water & Electricity

Dependent Variable? Electricity

Independent Variable? Water

Control Variable? Water and Electricity

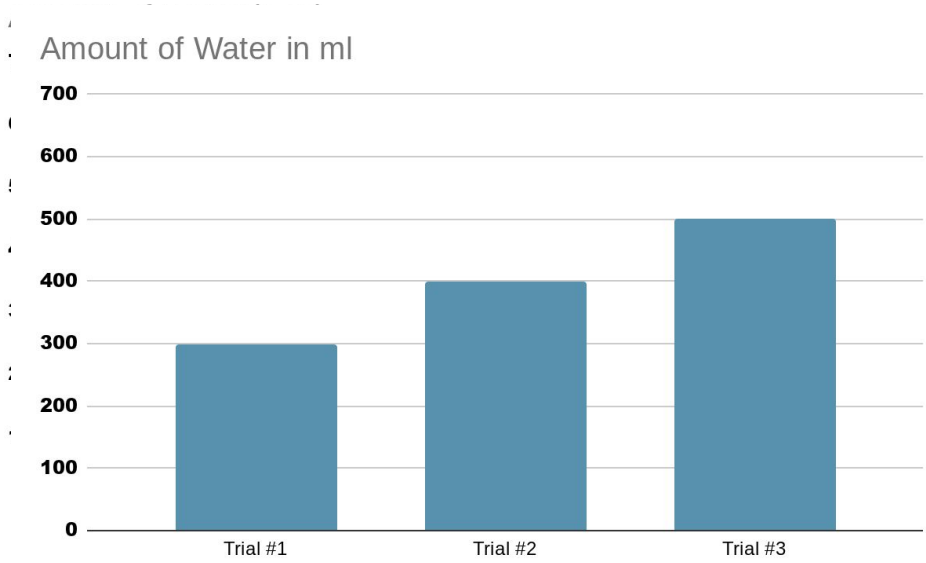
Testing the Hypothesis - Experiment

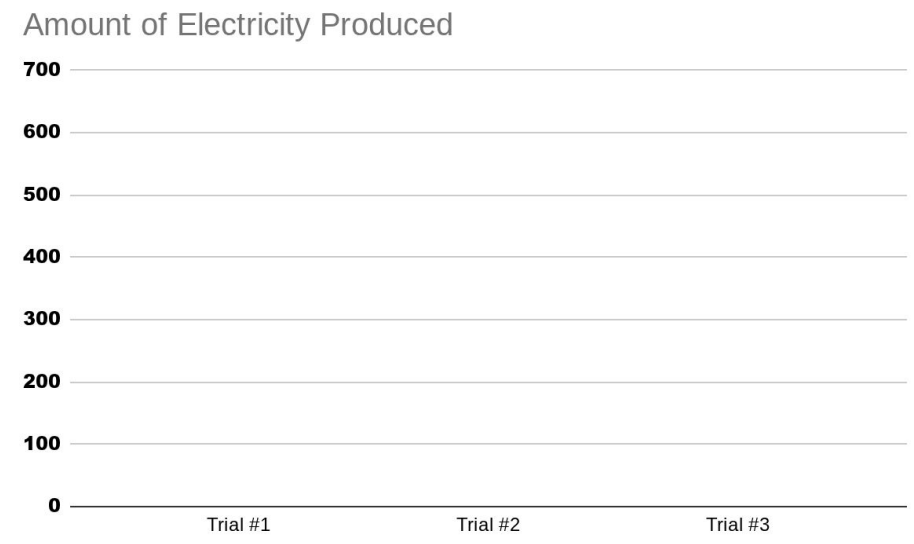
EXPERIMENT Collect and record data. Take pictures. Write everything in your science fair notebook, even mistakes and problems! Conduct your experiment multiple times to see if anything changes.

When I finished building my water mechanism, I tested it, and it worked. However, there was a problem; it didn't generate electricity. I tested it several times with different amounts of water and a light bulb. But there was no change, and this proves that my hypothesis was absolutely wrong.

Results

Put your data into graph form and study you graph to see what kinds of trends you notice.





Conclusion

Based on your results, what was the outcome? The mechanism works, but it couldn't produce enough energy to turn on at least a light bulb.

Does your data show that your hypothesis was correct? 50%-50%, because the mechanism is stable, but it couldn't create electricity.

What kinds of problems did you have? I just had some problems building the mechanism, but I fixed it, but now I need to figure out how to make my mechanism to create electricity.

What would you do differently next time? I think next time I will use different cables and try with more water, because I don't have planned to give up. I will think in more ideas during the winter break by observing more about my mistakes and combine them to find a solution.

Rough Draft Report

You will use all the information from above to put together a rough draft report.

You might know something called “Electricity”, and this thing helps you, your family, friends, and the entire world with their lives, making them easier when they need to travel, communicate, work, and evolve. However, to create electricity, people need to use some materials or procedures to get it, but these procedures and materials are destroying our world. They are killing animals, plants, even ourselves, but we can’t see that. So, I decided to create a mini mechanism that creates electricity with the combination hydraulic and kinetic energy, both are clean energy, and this will probably be the solution to this problem, I feel it.

My hypothesis was that my project would be able to generate enough energy to create enough electricity to at least turn on a bulb, or that at least it could work without any issue.

I first created the model, because without a model I can’t make my project work. Then, I placed every material in its place before testing it. After that, I started testing it, I used a water bottle of 500ml(16oz) for my experiment. Then, the water started spinning a wheel, and that wheel created kinetic energy for the generator. After that, I thought the generator would be able to generate electricity.

By my luck, the experiment was perfect, but it couldn’t generate electricity, or maybe it created, but it wasn’t enough to turn on the bulb, or the cables were the correct ones.

At the end, I couldn’t know if my project was successful, if it created electricity, and if my hypothesis was correct. However, this is not over yet, because I will make some changes like the cables, the amount of water used, be more specific with my data, and try with a different bulb if it is necessary.

Final Draft Report

You will use all the information from above to put together a rough draft report.

You might know something called “Electricity”, and this thing helps you, your family, friends, and the entire world with their lives, making them easier when they need to travel, communicate, work, and evolve. However, to create electricity, people need to use some materials or procedures to get it, but these procedures and materials are destroying our world. They are killing animals, plants, even ourselves, but we can’t see that. So, I decided to create a mini mechanism that creates electricity with the combination hydraulic and kinetic energy, both are clean energy, and this will probably be the solution to this problem, I feel it.

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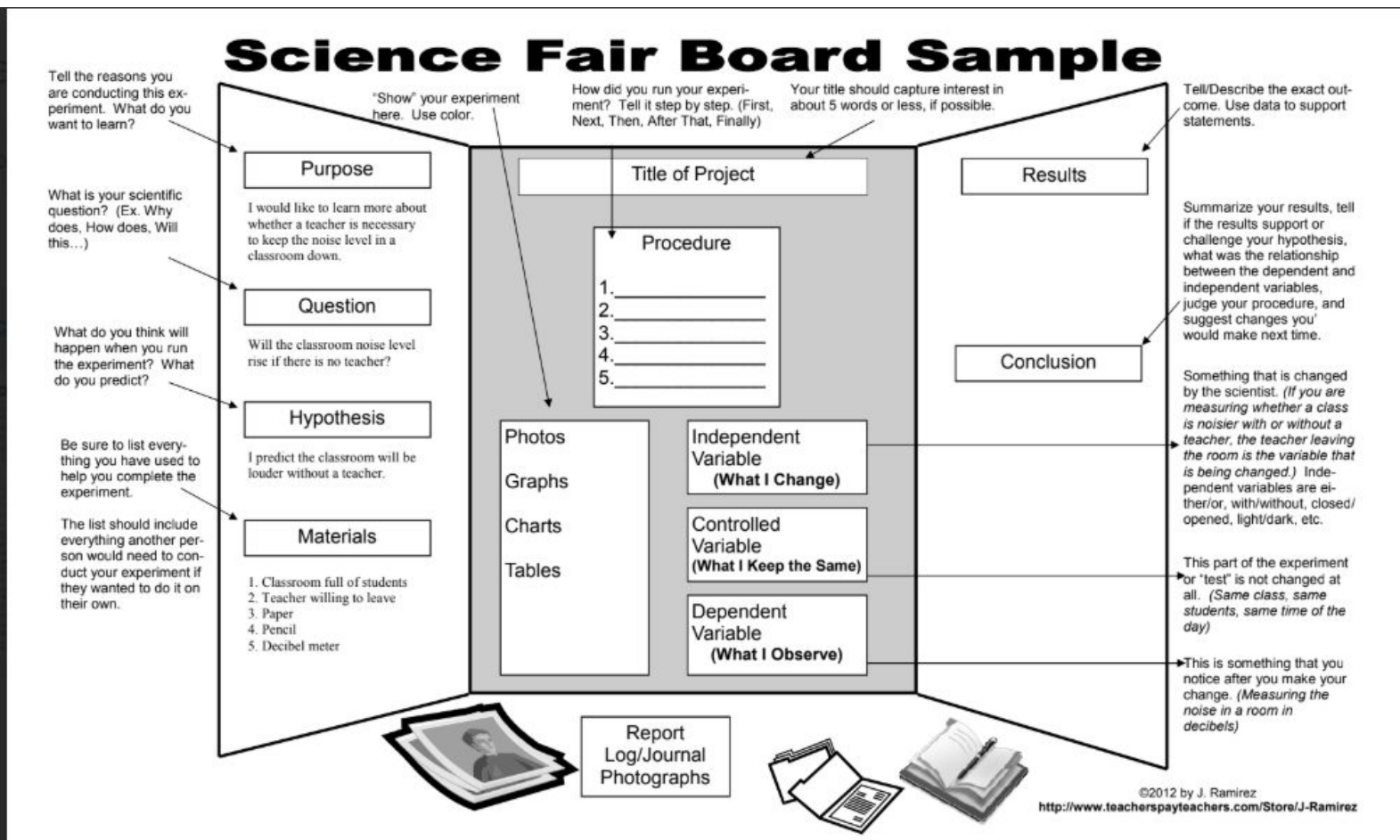
Final Project - Display Board Report

Make a Trifold Poster Board

Have it include all the components you have included in this Binder so far.

Your Finished Poster Board should look something like this: