

How to Prepare for the Science Fair:

<http://www.youtube.com/watch?v=7e5XU0HKFLA>

Guidelines if your project is an EXPERIMENT:

1. Problem

What is the purpose of my experiment, what problem am I trying to solve?

2. Hypothesis

What is my hypothesis? What do I think will happen?

If _____

then _____

because _____

For example: If a plant is watered with vinegar water, then it will be shorter than a plant grown with plain water because vinegar is an acid which damages plants.

3. Experiment

What materials do I need?

What am I going to do, step by step?

If you are in grade 5, include the following in your experiment section.

What is your **experimental group** (the group you are testing)?

What is your **control group** (the group you are comparing to)?

List the **constants** in your experiment (everything that is the same between your two groups):

What is your **independent variable** (the one thing that is different between your two groups)?

What is your **dependent variable** (what you are going to measure for your data collection)?

For example, if your hypothesis was: If a plant is watered with vinegar water, then it will be shorter than a plant grown with plain water because vinegar is an acid which damages plants.

Experimental Group: plant watered with vinegar water

Control Group: plant watered with plain water

Constants: same type of plant, same type of soil, same amount of water, same amount of light, same type of container

Independent Variable: Vinegar (one has vinegar in the water and one does not)

Dependent Variable: The height of the plants

4. Results

*conduct your experiment

*take photos if possible for your display

*collect information and make a data table to record your results

*make a graph using the information from your data table.

Example of a data table:

Height of Plants in Centimeters

	Plant Watered With Vinegar Water	Plant Watered With Plain Water
Day 5	5 cm	8 cm
Day 10	6 cm	12 cm
Day 15	6 cm	20 cm

5. Conclusion

Was my hypothesis true or false? What happened? Why do I think this happened? What did I learn?

6. Next Time

What would I do the same or differently next time?

7. Resources

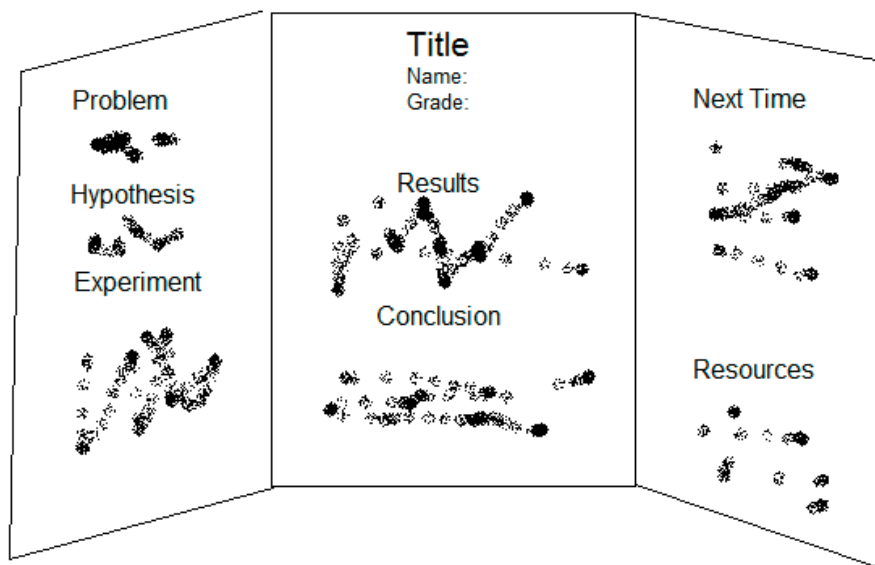
List the books, internet sites and other resources you used to do your project.

8. Title

Give your project a title

9. Display Board

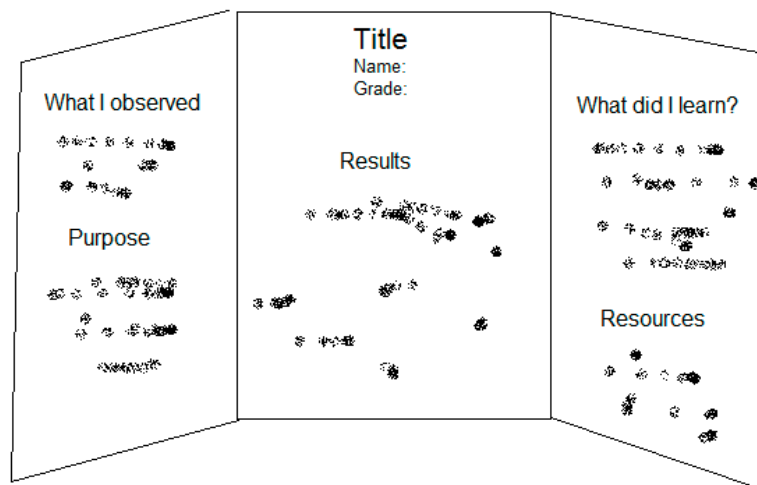
Make a display board. You can buy display boards at stores such as Staples, Michaels, Walmart, etc. You may also choose to make your display board visually appealing (use markers, photos, decorative items, etc.).



available at office
Michaels, Walmart,
Make your display
board frame your titles

Guidelines if your project is an **OBSERVATION**:

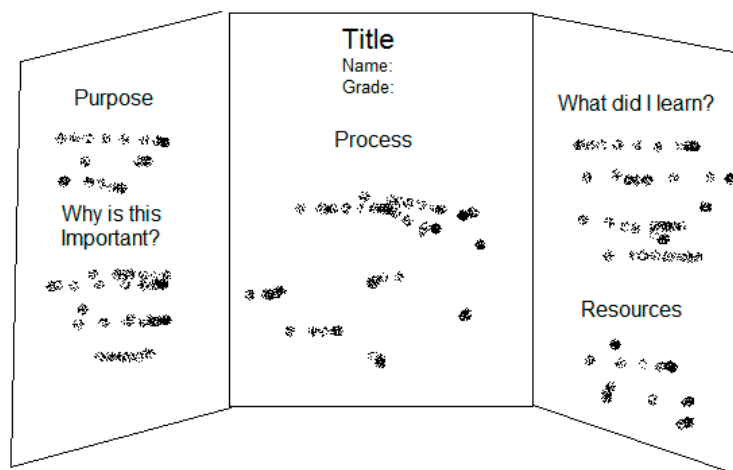
1. What am I observing?
2. Purpose, why am I observing this?
What do I want to learn?
3. Results, what happened?
(you can include pictures, photos, charts and tables)
4. What did I learn?
5. Resources, list the books, internet sites and other resources you used to do your project.



6. Title, give your project a title
7. Display Board - Make a display board for presenting your project. Display boards are usually available at office stores such as Staples and Office Max, some of the craft stores such as Michaels, Wal-Mart, etc. You may also choose to make your own display board out of cardboard. Make your display visually appealing (make it look nice). For example, use construction paper to frame your titles and photos, decorate your display, and be creative.

Guidelines if your project is a **DEMONSTRATION** or **MODEL**:

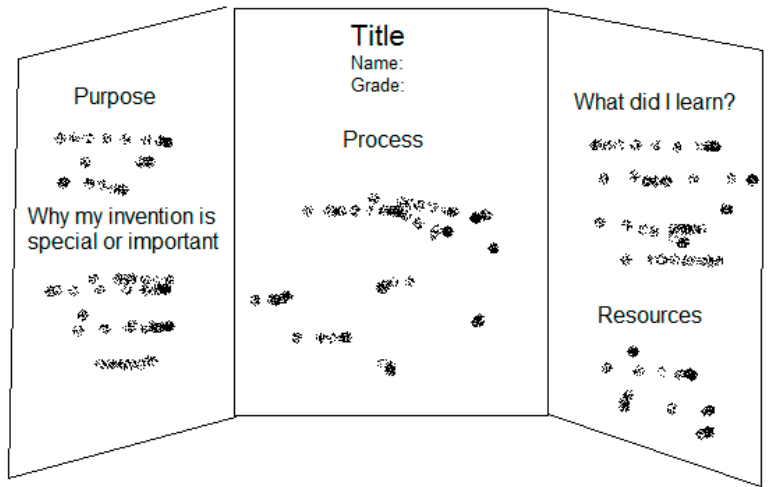
1. Purpose, what does my model or demonstration show or prove?
2. Why is this important?
3. Process, how did I make my model or put together my demonstration?
(you can include pictures and photos)
4. What did I learn?
5. Resources, list the books, internet sites and other resources you used to do your project.



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Guidelines if your project is an INVENTION:

1. Purpose, what does my invention do?
2. Why is my invention important?
What makes it useful or special?
3. Process, how did I make my invention?
(you can include pictures and photos)
4. What did I learn?
5. Resources, list the books, internet sites and other resources you used to do your project.

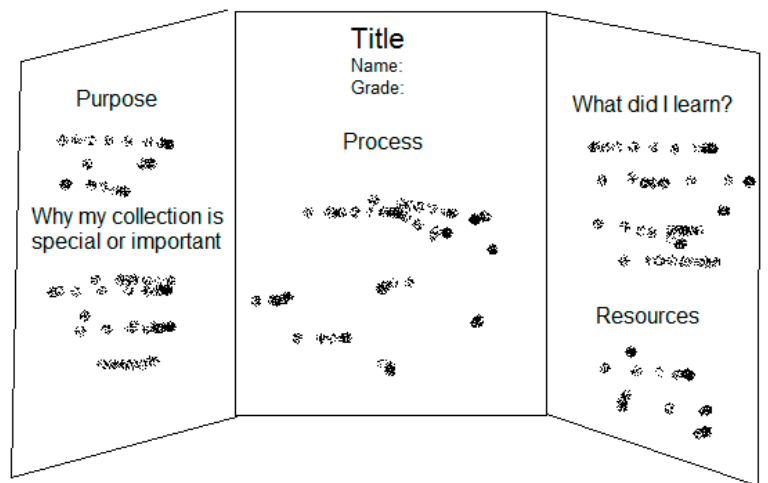


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Guidelines if your project is a COLLECTION:

1. Purpose, describe your collection
2. Why is your collection important or special?
3. How did I make or put my collection together
(you can include pictures and photos)
4. What did I learn?
5. Resources, list the books, internet sites and other resources you used to do your project.



6. Title, give your project a title

7. Display Board - Make a display board for presenting your project. Display boards are usually available at office stores such as Staples and Office Max, some of the craft stores such as Michaels, Wal-Mart, etc. You may also choose to make your own display board out of cardboard. Make your display visually appealing (make it look nice). For example, use construction paper to frame your titles and photos, decorate your display, and be creative.