



Science Fair Procedures

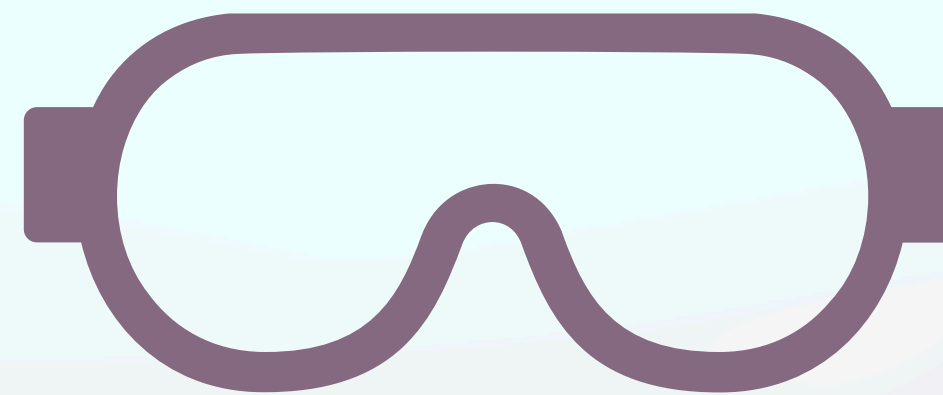
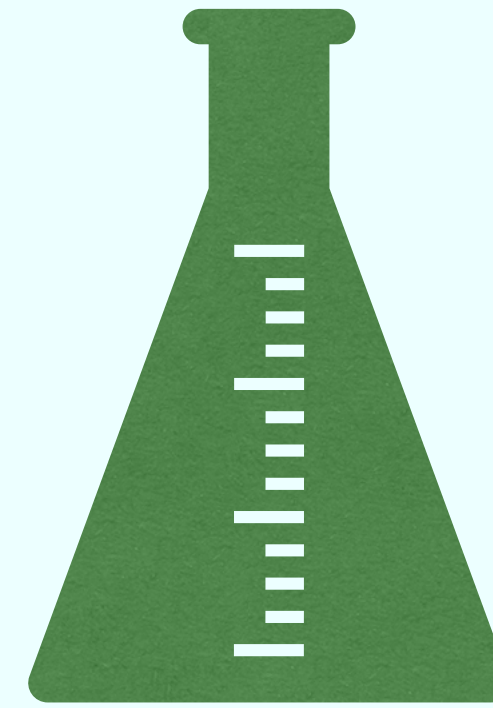
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Mesita Homepage

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Topic

- Select a topic that can be answered only by experimenting.
- Write your topic as a question to be investigated.



Selecting a Topic

- Help in finding a topic
 - READ in science books, magazines, newspapers, TexQuest
 - Talk to your teacher, family and friends
 - Visit professional people, museums, zoo
 - Select a topic that interests the student and it may be something new or they want to learn about.
 - Don't forget to come up with a catchy title for your project

Purpose

You will formulate a testable question for the experiment.
When you are formulating the question, think of the variable.



Hypothesis

A hypothesis states what you think is going to happen when you investigate a question.

Question: Does light affect the way plants grow?

Hypothesis: If light affects the way plants grow, then, plants will grow toward the light.

Materials

- List all materials used in your investigation. Include what, how much, and what kinds of materials used. Keep in mind quantities are important. Be sure to use only the **metric units**.



Procedures

Step-by-Step Directions

Your step-by step directions are like a recipe. Anyone who reads them will be able to duplicate your investigation and get the same results.



Variables - 4th and 5th Grade Projects

Variables (what is being kept the same and what is being changed in the experiment?)

1. **Independent Variable** (manipulated variable - what are you testing, what is changing in your experiment- remember only you can only change 1 thing.
2. **Controlled Variable** (held constant) what thing or things are you keeping the same.

Example of Variable - 4th and 5th Grade

Purpose Question: Which surface will cause more friction?

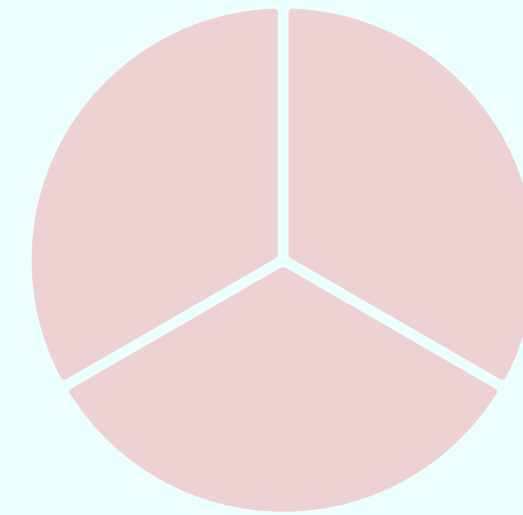
Independent Variable (Manipulated Variable): Types of surfaces

Controlled Variable (Held Constant) the toy care being used will be kept the same so that the mass of the object stays the same. The height of the ramp to test the surface.



Making a Data Table

In your data table, you will include what you are testing and your trials. If it is numerical data, find the average to give more accurate data. Remember a good scientist will always conduct a minimum of 3 trials. If you are testing humans, you must have a minimum of 10 trials.



Making a Graph

Title: The title is a short description of the data being displayed.

Horizontal Axis or X- Axis: The independent variable (manipulated - what you changed on purpose).

Vertical Axis or Y- Axis: The results (dependent variable- what happened as a result of what you changed).

You must include picture of you testing your hypothesis



Conclusion

The conclusion should be written in paragraph format answering the following questions:

1. What was your investigation about?
2. What was your conclusion? Where you correct or incorrect?
3. Explain your results or findings.

Remember to use scientific vocabulary when writing your conclusion. Your conclusion should be 5 to 6 sentences for the paragraph.

4th and 5th Grade - Research paper. You must include 1 page on your science project topic.

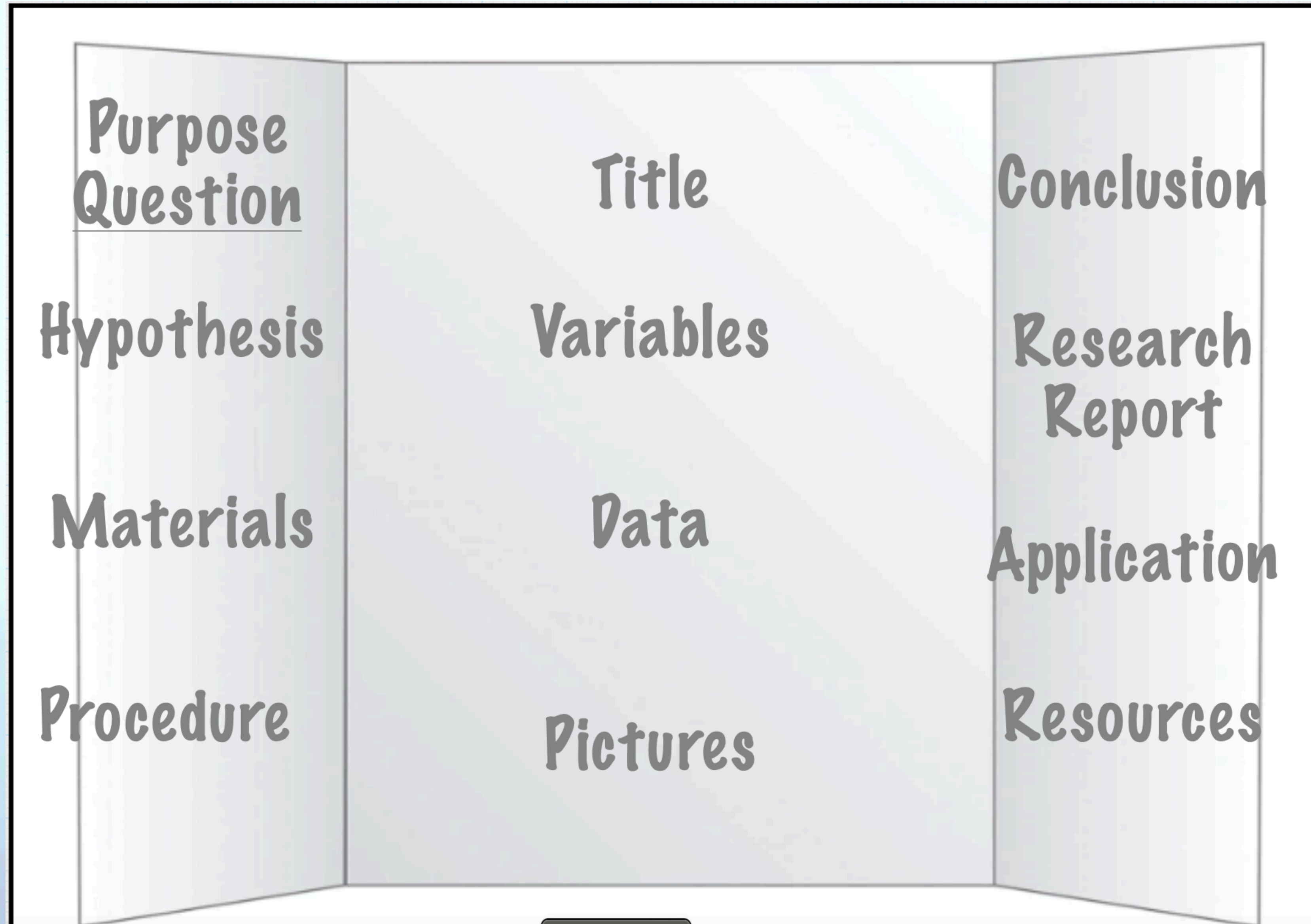
Application

Should be 2 to 3 sentences on how does this experiment / investigation apply to your everyday life.

Resources

Include at least three and one needs to be a book. List alphabetically all books articles, people, or other sources used for researching and writing your paper.

Physical Display



Thank You!
Good Luck Mesita Students