**What makes a good Project?**

*I need to choose a topic I am interested in learning more about.*

*Is the investigation worth doing or do I already know the answer?*

*I need to make sure the topic can be investigated (can I test or research it?), stay away from Yes/No answers.*

*Is my topic based on Science?*

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| --- | --- |
| **Examples of Good Project Ideas** | **Ideas that need Improvement** |
| * Does the flex of a hockey stick affect the speed of a slap shot?
* Does music played in a room affect the growth of a plant?
 | * What stick makes the best hockey player? (opinion)
* Tigers (research)
* What color is nicer? (opinion)
* Creating power from citrus fruit (no experiment/already done)
* How does a volcano work? (already done)
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1. I need to have a variable I can test (something I can change, observe, measure and record data)

2. **Title** (be creative!)

3. **Purpose** (what question are you trying to answer?; Why are you doing this project?)

4. Develop a **Hypothesis** (what do you think will happen?):

- If: \_\_\_\_\_\_\_\_\_\_\_ (something I can change and test),

- then: \_\_\_\_\_\_\_\_\_\_\_ (how it affects the variable; the thing we changed and can measure),

- because: \_\_\_\_\_\_\_\_\_\_\_ (of what I researched and what I already know)

5. **Procedure** (Experiment Design):

Write out every single step you took to complete your experiment

 Tips: a. the experiment should be able to be repeated by someone else.

 b. Only change one variable

 c. After changing one variable, everything else (the controls) should

stay the same for all trials

4. **Data**:

 - Any numbers you can collect are very important

 - Put your raw information (numbers you first collect) into an organized and easy to read table, graph, etc so the numbers are easy to understand)

5. **Results/Conclusions**:

 - What did you results show? What did you learn? What worked really well? What didn’t work well? What would you do differently next time?

 - Must answer your original question or purpose.

 - Give evidence from your experiment to support your answer. (Ex: My hypothesis was correct because this was the result of my experiment…)

6. References:

 - State EVERY place you found information – even if it’s just a picture or an idea.