



## Teton Middle School Science Fair

March 3, 2016

Science is learning about the world around us. Science answers questions like how things work and why. Your science fair project should answer a question that can be tested through an experiment. This worksheet will help you through the process.

My project title is:

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### Make Observations

Draw on your previous observations to come up with a question. Example: Will fertilizer "X" or "Y" cause tomato plants to grow taller?

The question I would like to answer is:

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As you prepare to form a hypothesis about how to answer your question there are some helpful definitions you will need to know. The **cause** is something that can be changed, for example fertilizer "X" or "Y". This is called the **Independent Variable**. What is your Independent Variable? \_\_\_\_\_

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The **effect** is the result of the cause, for example the growth of the tomato plant. This is called the **Dependent Variable**. What is your Dependent Variable?

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Make more observations and gather information. What experiments can you find that are similar to the experiment you are proposing?

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Use at least two other sources in your research or background information.

What results did others obtain?

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### Form a Hypothesis

Use this information to form a hypothesis. Write your hypothesis as an "If/Then" statement. If tomatoes receive fertilizer "X" then they will grow taller.

My hypothesis is \_\_\_\_\_

### Test the Hypothesis

Write the procedure for your experiment. A procedure is like a recipe. You need to include times, amounts, sizes, order of each step, etc. Include a list of materials needed. As you plan out your experiment make sure you include a control group. A control group is a group that does not include the Independent Variable. This part is easy, for example grow one tomato without any fertilizer.

List of Materials:

Procedures:

### Analyze Results

Tell us what you have learned from your experiment. Include a detailed description and show results in at least one of the following ways: Data tables, Charts, Graphs, Bar graphs, Line graphs or Pie charts.

### Draw Conclusions

Do your conclusions support your hypothesis? Tell exactly what happened in your experiment. What did you learn? What would you do different?

### Communicate Results

Your report will be handing in this worksheet. Attach work, charts or anything that won't fit into the spaces above. Another part of your report will be your display for the Science Fair. Be neat and thorough. Make your presentation as professional as possible. Good luck and have fun with science!