**Scientific Inquiry, PPT Notes**

1. Posing questions: *Scientific Inquiry* begins with…   
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Developing a hypothesis: **A hypothesis is a possible explanation for a set of observations or an answer to a scientific question.**

A *hypothesis* must be\_\_\_\_\_\_\_\_\_\_\_\_\_.

Hypothesis Formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Designing an experiment: After you state your hypothesis, you are ready to…
2. Designing an experiment: A *variable* is…
3. Designing an experiment: The *manipulated (or independent) variable* is…
4. Designing an experiment: The *responding (or dependent) variable* is…
5. Collecting and interpreting data: Create a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to record your *data*. *Data* are…
6. Collecting and interpreting data: A *graph* is a visual representation of your data.
7. Collecting and Interpreting data: A \_\_\_\_\_\_\_\_\_\_\_\_ is a useful tool for interpreting data.
8. Analysis: Now that that you have gathered and interpreted your data, you must determine if the data \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ your hypothesis
9. A conclusion is summary of what you have learned about your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. Drawing conclusions: Often one scientific inquiry leads to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. The nature of inquiry: Different questions may require \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. The nature of inquiry: scientific inquiry is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, NOT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.