Scientific Method WebQuest

Visit Ms. Brien’s website at :

<http://libby-gray.wikispaces.dpsk12.org/Scientific+Method+Web+Quest>

The links found there will help you answer the questions in your packet on the scientific method.

**I. Problem/Question**

*Science Fair Central*

1. What is a testable question?

2. What is the difference between a “general interest science question” and a “testable question”?

*Six Steps of the Scientific Method*

3. What does this article tell you to use in order to make a good question?

**II. Observation**

*Observation or Inference?*

4. What is the difference between an observation and an inference?

*Qualitative vs. Quantitative*

5. What is the difference between qualitative and quantitative observations?

6. Provide examples of a qualitative observation and a quantitative observation (use from the website if you want!)

Qualitative:

Quantitative:

**III. Hypothesis**

*Access Excellence*

7. What is wrong with the way that the hypothesis “Chocolate may cause pimples” is written?

*Writing in Science*

8. How does this article suggest you write a good hypothesis?

**IV. Experimentation**

*Science Buddies*

9. How many variables must be changed in an experiment?

*The Great SM:* **scroll to “Testing Predictions”**

10. Why do you have to have a lot of geese in the control group and the experimental group instead of only one webbed goose and one web-free goose?

**V. Results**

*The Scientific Method: A Model for Conducting Scientific Research* **read #6 and #7**

11. What are four ways that you can graphically present data?

1)

2)

3)

4)

*SCENE: Scientific Method* **Click on “Reflect on the Results”**

12. What could be two reasons why the data might not support the hypothesis.

1)

2)

**VI. Conclusion**

*Science Buddies* **Scroll and click on “Analyze your data and draw a conclusion”**

13. What do you do if your results do not match your hypothesis for an experiment?

*Draw Conclusions*

14. List at least four important things your conclusion should do.

1)

2)

3)

4)