**Introduction to Scientific Method**

Find answers to the questions below by going to the site listed. Please type your answers directly onto this document.

<http://www.sciencebuddies.org/science-fair-projects/project_scientific_method.shtml#overviewofthescientificmethod>

To find more information, click on links in the table under the heading ”Detailed Help for Each Step”

**Scientific Question:**

1. What is one of the most important considerations in choosing your question?

2. Why does the question need to be specific?

3. A good question usually begins with which terms?

**Background research:**

4. Why do scientists need to do background research before beginning an experiment?

**Hypothesis:**

5. What is a hypothesis?

6. What common form does the site give as an example of how to write a hypothesis?

7. What is a testable hypothesis and why is it important?

**Experimental Procedures:**

8. How should an experimental procedure be written?

9. Why should an experiment be repeated, or replicated?

10. How many times should an experiment be repeated?

11. If a scientist is running an experiment on specimens like plants or on humans, what can they do instead of repeating the experiment?

12. Where do scientists usually record their data?

**Variables:**

13. How can experiments demonstrate cause and effect?

14. What is a variable?

15. What is an independent variable?

16. What is a dependent variable?

17. What is a controlled variable?

18. What is a fair test, and why is it important that an experiment is a fair test?

**Analyze your data and draw conclusions**

19. What are scientists trying to find out when they analyze their data?

20. What do scientists do if they find that their hypothesis was not supported?

**Conclusions:**

21. List four things that scientists include in their conclusion.

22. How do scientists report their results?

23. What is an abstract?