Scientific Method Worksheet

Answer the following questions.

1. Put the following steps in order, please number 1-6.
   
   ______ Hypothesis  
   ______ Draw Conclusion  
   ______ Experiment  
   ______ Ask a Question  
   ______ Analyze data  
   ______ Collect Observations

2. Put the following steps of scientific inquiry in order, please number 1-3.
   
   ______ Make an observation  
   ______ Ask a question  
   ______ Form a hypothesis

3. Is the following statement a fact, opinion or theory? Why?

   Scrambled eggs are better for breakfast than cereal. I can stay full longer if I eat eggs.

4. List if each of the following data is qualitative or quantitative:

   a. _______ Green
   b. _______ 5.7 grams
   c. _______ Large
   d. _______ 120 lbs
5. Determine if each statement is true or false about forming a hypothesis:

   a. It must be long.  
   b. It is an educated guess.  
   c. It is in if...then format.  
   d. It must be testable.  
   e. It must start with I think. 

6. Explain what it means to have your hypothesis “refuted”.

7. Mrs. Everhart developed the theory that all bulldogs are great pets. After all her bulldog Meatball is a wonderful dog! Is this statement a scientific theory? Why or why not.

8. Define scientific method.


10. Define experiment.

11. Complete the following sentence: All scientific knowledge is based on _________________.

12. Which of the following is an example of a good scientific question? Why?

   a. How big is an ant?  
   b. Where do rabbits live?  
   c. Which make better pets, fish or dogs?  
   d. What will happen to the freezing point of water if salt is added?
13. Can you think of two ways to answer a scientific question?

14. What three things must happen in order for a theory to be formed?

15. List the three must haves of a hypothesis.

16. Why do we perform an experiment?

17. Create a hypothesis for the following problem: You are planting a garden. Create a hypothesis about how water will affect plant growth.

18. What questions do you have about the scientific method unit? Are you confused about anything?
1. How many pounds of newspaper did Mrs. Brown's class recycle?  1. ______________

2. How many pounds of newspaper did Mr. Jone's class recycle?  2. ______________

3. How many more pounds did Ms. Scott's class recycle than Mr. John's class? Show your work in the space below.  3. ______________

4. Are the numbers on the scale counting by 20s, 30s, 40s, or 50s?  4. ______________

5. Do the horizontal lines show increments of 20s, 30s, 40s, or 50s?  5. ______________

6. Which class recycled the most newspapers?  6. ______________

7. How many pounds of newspapers were recycled in all? Show your work in the space below.  7. ______________