H_2

Name_____Date_____Hour_____

Physical Science Guided Reading 1-1 The Methods of Science

1. What is science?
2. What are the 3 categories that science is organized into? What do we study in each one?
3. Examine Figure 2, based on what you have read about the nature of science, what important key idea of science does this picture show us?
4. Describe 3 different types of investigations that a scientist might perform.
5. What are the steps used by scientists when investigation a natural phenomenon?
6. What's a hypothesis? What are 3 ways we can test a hypothesis?
7. What is the purpose of a control in an experiment?
8. Why do scientists have to organize their observations and data collected during an experiment?
9. Give an example from the text of how scientists reduce experimental bias?
10. What is a model? Give two examples of different models that might be used in science.
11. What's a scientific law? Give an example from the text.
12. Examine figure 8. Identify which questions listed below could we answer using the scientific process
    a. How does temperature effect flower growth?
    b. Which is the best temperature for the classroom?
13. Answer the following questions from the section review on page 13
    a. What is the dependent variable in an experiment that shows how the volume of a gas changes with changes in temperature?
    b. Create a hypothesis that could be tested in this experiment. (Remember an if/then statement)
    c. Create a data table using the apply math section, then calculate the average number of breaths that the fish takes per minute.