Section 1.1: Vocabulary Building Activities (cont.)

The Big Question: Scientists ask questions about what they see going on in their world. They explain exactly what they want to learn from the scientific investigation by writing a question, called the "Big Question." After they have written the "Big Question," scientists predict what they will find out. Scientists call this careful guess a hypothesis.

Practice writing a "Big Question" and hypothesis for each topic. Some boxes have been completed for you.

Topic	Question	Hypothesis
white bread mold		Bread mold does not need light for reproduction on white bread.
paper towels		
plants		Plants grow taller and stronger when given fertilizer.
conserving water	Does washing dishes by hand use less water than an electric dishwasher?	
magnets		

Variables—Identify the variables:
Example:
Question: Does heating a cup of water allow it to dissolve more sugar?
Independent Variable: temperature of the water measured in degrees Celsius
Dependent Variable: amount of sugar that dissolves completely measured in grams
Controlled Variables: stirring, type of sugar, amount of water

Try (Identify the variables in your scientific journal):
Question: How fast does a candle burn?
Independent Variable:
Dependent Variable:
Controlled Variables:

Steps in the Scientific Method: Put the steps to the scientific method in order by numbering 1 through 6.

Step #_____ Draw Conclusions
Step #_____ Research the Problem
Step #_____ Analyze the Data
Step #_____ Design and Carry Out the Experiment
Step #_____ Choose a Problem
Step #_____ Construct a Hypothesis

Online Resource: Use games and puzzles to learn more about the scientific method at the website below.
"Kids DO Science: fun and games." The University of Georgia. < http://www.uga.edu/srel/kidsdoscience/kidsdoscience-fun.htm >