Name: _____

Period: _____

Scientific Method Unit Study Guide

1. **Define** the following branches & "spheres" of Earth Science:

branch	sphere
Geology-	Geosphere-
Oceanography-	Hydrosphere-
Ecology-	Biosphere-
Meteorology-	Atmosphere-
Astronomy-	**Space** - the physical universe beyond Earth's atmosphere

2. **Compare** by filling in the chart.

Type of science	**Earth**	**Environmental**
characteristics		

3. Place the following step of the **scientific method** in order: **experiment**, **ask a question**, **conclusion**, & **hypothesis**

1st	2nd	3rd	4th

4. For each part of an experiment below, d**efine** the component, and **describe a specific example** for each:

term	**define**	**describe an example**
hypothesis		
independent variable		
dependent variable		
constants		
experimental group (test group)		

control group		
data		

5. What are the **two types of data** you could collect during an experiment? Describe the difference between them.

Qualitative Data	_____ Data

6. Explain the difference between **accuracy** and **precision** when taking measurements in science.

7. How do you know the **gas nozzles** in the science labs are turned off? (***trivia tip****: natural gas = methane*)

8. Describe 3 safe procedures for handling **glassware** and **hot plates** in a science lab?

9. List the **units** used in the **metric system** for:

	kilo-	**standard**	**milli-**
length	kilometer		
volume		liter	
mass			

10. From question # 9, how many "milli-" are in a standard unit? How many standard units are in a "kilo-"?

11. How many centimeters are in one meter? How many millimeters are in one meter?

12. Define & give 2 examples:

	Theory	**Law**
define		
examples		

13. Define **meniscus**: