

Name _____

Periodic Table of the Elements

Use Chapter 7 in Focus on Physical Science (pages 290-301) to complete the following activity on the Periodic Table of the Elements. The periodic table is on pages 292-293.

NOTE: use colored pencils for your coloring in this activity and be sure that you **shade lightly**. You must also include a key of the colors you use. **Do not simply color your table to look like the one in the book!!**

1. What determines the atomic number of an element?
2. What happens to the atomic number as you move across a period?
3. Generally what do the elements in a group have in common with each other?
4. Why are the lanthanide and actinide series placed at the bottom of the table?
5. Lightly shade in the areas that are metals. Describe the metallic properties that metals share (4).
 - a.
 - b.
 - c.
 - d.
6. Which groups of **metals** are the most reactive? Label the appropriate columns as "reactive metals." What do all of these most reactive metals have in common?
7. How many elements are classified as nonmetals? Describe the 4 general properties of nonmetals.
 - a.
 - b.
 - c.
 - d.

8. Most of the elements contained in plants and animals are _____.
9. What are the properties of the semimetals/metalloids? List the elements that are considered semimetals/metalloids?
10. Lightly shade in the Halogens. Explain two things that Halogens have in common.
- a.
 - b.
11. Lightly shade in the Noble Gases. What do the noble gases have in common? Why do you think they are called "noble?"

Use the Periodic Table on pages 292-293.

12. How many total elements are there? _____
13. How are the gases designated? _____ How many elements are gases under normal conditions? _____ On your Periodic Table indicate the elements that are gases (maybe put a small g or outline etc).
14. How are the liquids designated? _____ How many elements are liquids? _____ On Your periodic table indicate the liquids.
15. The remaining elements are solids under normal conditions. How are the solids indicated on the table? _____ How many elements are solids? _____
16. How many elements are synthetic? _____ What does "synthetic" mean and in general where are the synthetic elements found on the table?

Using the information above, calculate the percentage of elements that are:

17. Gases _____
18. Solids _____ *Note: all the synthetic elements are also solid.*
19. Liquids _____