

## PERIODIC TABLE WEBQUEST

Part I: **"Dmitry Who?"** Go to <http://library.thinkquest.org/3659/pertable/>

1. Why was it necessary to create a periodic table?
  2. What two properties is the modern periodic table based upon?
  3. Name the two men credited with the development of the first periodic tables in 1869.
  4. What was Mendeleev's table was based upon?
  5. The table is called the periodic table because?
  6. Mendeleev's periodic law states that:
  7. The modern periodic law states that:
  8. Mendeleev's table was arranged in rows, called \_\_\_\_\_, and columns called \_\_\_\_\_. Elements of each \_\_\_\_\_ have similar properties.
  9. Explain why Mendeleev left blank spaces in his periodic table?
  10. Explain why some elements Mendeleev knew about did not fit perfectly on his table.
- Part II: **"Get Organized Periodically"** Go to <http://www.chem4kids.com/files/elementable.html>
1. Why are the elements placed in specific places on the Periodic Table?
  2. Periods are \_\_\_\_\_ that run from left to right.
  3. Elements in the same period have the same \_\_\_\_\_.
  4. Every element in the first period has \_\_\_\_\_ shell

for its \_\_\_\_\_. Every element in the second period

has \_\_\_\_\_ shells for its \_\_\_\_\_. See the pattern?

5. Groups are \_\_\_\_\_ that run from top to bottom.
6. The elements of a group have the same number of \_\_\_\_\_ in their \_\_\_\_\_ shell.
7. Every element in group one has \_\_\_\_\_ electron in its outer shell. Every element in group two has \_\_\_\_\_ electrons in its outer shell.
8. Hydrogen is special because it can act like two groups, \_\_\_\_\_ and \_\_\_\_\_.
9. Hydrogen sometimes is \_\_\_\_\_ an electron and sometimes it has an \_\_\_\_\_ electron.
11. Although helium has only \_\_\_\_\_ electrons in its outer shell, it is grouped with elements that have \_\_\_\_\_.
12. The gray elements on this table are called \_\_\_\_\_ elements. They each have two electrons in their outer shell.

Part III: **"Family Fun"** Go to <http://chemicalelements.com/>

13. Click on Alkali Metals (left bar) and answer the following questions.

- a. What is the group number? \_\_\_\_\_
- b. Are these metals reactive? \_\_\_\_\_
- c. Do these metals occur freely in nature? \_\_\_\_\_
- d. How many electrons are in their outer shell? \_\_\_\_\_
- e. What are the three characteristics of ALL metals?  
\_\_\_\_\_  
\_\_\_\_\_
- f. Are these metals soft or hard? \_\_\_\_\_
- g. Name the two most reactive elements in this group? \_\_\_\_\_ and \_\_\_\_\_
- h. What happens when they are exposed to water?  
\_\_\_\_\_

14. Go back and click on Alkaline Earth Metals (left bar) and answer these questions.

- a. What is the group number? \_\_\_\_\_