

Name \_\_\_\_\_ Bell \_\_\_\_\_ Date \_\_\_\_\_

## Introduction to the Periodic Table Web Quest

### Part 1 – Background Knowledge

[http://www.chem4kids.com/files/elem\\_intro.html](http://www.chem4kids.com/files/elem_intro.html)

1. An Atom is made up of \_\_\_\_\_ and \_\_\_\_\_ in the \_\_\_\_\_, and some \_\_\_\_\_ zipping around in orbitals (around the nucleus like the moon orbits the earth).
  2. Eight protons, neutrons, and electrons would be what element? \_\_\_\_\_
  3. The term 'element' is used to describe what? \_\_\_\_\_
  4. Over 95% of your body is made up of what ELEMENTS? \_\_\_\_\_
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### Part 2 – What is the Periodic Table?

[http://www.chem4kids.com/files/elem\\_pertable.html](http://www.chem4kids.com/files/elem_pertable.html)

1. Why are the elements placed in specific places on the Periodic Table? \_\_\_\_\_
2. Periods are \_\_\_\_\_ that run from \_\_\_\_\_ to \_\_\_\_\_.
3. Elements in the same period have the same number of \_\_\_\_\_.
4. Every element in the first period has \_\_\_\_\_ orbitals for its \_\_\_\_\_. Every element in the second period has \_\_\_\_\_ orbitals for its \_\_\_\_\_. See the pattern?
5. Groups are \_\_\_\_\_ that run \_\_\_\_\_ and \_\_\_\_\_.
6. The elements of a group have the same number of \_\_\_\_\_ in their \_\_\_\_\_ orbital.
7. Every element in group one has \_\_\_\_\_ electron in its outer shell. Every element in group two has \_\_\_\_\_ electrons in its outer shell.
8. There are two special elements at the top – what are they? \_\_\_\_\_

**Checkpoint #1 – What is the purpose of having the Periodic Table?**

### Part 3 – Using the Periodic Table

<http://periodic.lanl.gov/default.htm>

Click on "How to Use the Periodic Table"

1. Read about the Atomic Number – Summarize; What is the atomic number? \_\_\_\_\_  
\_\_\_\_\_
2. Read about the Atomic Symbol – Summarize; What is the atomic symbol? \_\_\_\_\_  
\_\_\_\_\_
3. Read about the Atomic Weight – Summarize; What is the atomic weight? \_\_\_\_\_  
\_\_\_\_\_

Click the "Back" button: Click on "Characterizing the elements"

4. List the 10 families of elements

Click the "Back" button: You should be at "Periodic Table Home"

Choose three elements on the periodic table (click on a box). Complete the following information for each.

Element # _____
Name _____
Atomic Number _____
Atomic Weight _____
One Cool fact _____
_____

Element # _____
Name _____
Atomic Number _____
Atomic Weight _____
One Cool fact _____
_____

Element # _____
Name _____
Atomic Number _____
Atomic Weight _____
One Cool fact _____
_____

**Checkpoint #2 – How is the periodic table organized?**

# Day 2 – Families on the Periodic Table

Name \_\_\_\_\_

<http://www.ptable.com/>

1. How many periods are there in the Periodic Table? \_\_\_\_\_
2. How many groups are there in the Periodic Table? \_\_\_\_\_

Put your curser over each of the 10 families. Do not click on them yet...

1. Metalloids (Mixture of metal and non-metal)
  - a. Describe where they are located \_\_\_\_\_
  - b. How many elements are there in this family? \_\_\_\_\_

Click on Metalloids

- c. What are three characteristics of metalloids? \_\_\_\_\_
- 

## Non-Metals :

2. Other Non-Metals
  - a. Describe where they are located \_\_\_\_\_
  - b. How many elements are there in this family? \_\_\_\_\_

Click on Other Non-Metals

- c. What are three characteristics of Non-Metals? \_\_\_\_\_
- 

3. Halogens
  - a. Describe where they are located \_\_\_\_\_
  - b. How many elements are there in this family? \_\_\_\_\_

Click on Halogens

- c. What are three characteristics of Halogens? \_\_\_\_\_
-

#### 4. Noble Gases

- a. Describe where they are located \_\_\_\_\_
- b. How many elements are there in this family? \_\_\_\_\_

Click on Noble Gases

- c. What are three characteristics of Noble Gases? \_\_\_\_\_
- 

### Metals

#### 5. Alkali Metals

- a. Describe where they are located \_\_\_\_\_
- b. How many elements are there in this family? \_\_\_\_\_

Click on Alkali Metals

- c. What are three characteristics of Alkali Metals? \_\_\_\_\_
- 

#### 6. Alkaline Earth Metals

- a. Describe where they are located \_\_\_\_\_
- b. How many elements are there in this family? \_\_\_\_\_

Click on Alkaline Earth Metals

- c. What are three characteristics of Alkaline Earth Metals? \_\_\_\_\_
- 

#### 7. Lanthanide

- a. Describe where they are located \_\_\_\_\_
- b. How many elements are there in this family? \_\_\_\_\_

Click on Lanthanide

- c. What are three characteristics of Lanthanide? \_\_\_\_\_
- 

#### 8. Actinide

- a. Describe where they are located \_\_\_\_\_
- b. How many elements are there in this family? \_\_\_\_\_

Actinide

- c. What are three characteristics of Actinide? \_\_\_\_\_
-

9. Transition Metals

a. Describe where they are located \_\_\_\_\_

b. How many elements are there in this family? \_\_\_\_\_

Click on Transition Metals

c. What are three characteristics of Transition Metals? \_\_\_\_\_

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10. Post Transition Metals

a. Describe where they are located \_\_\_\_\_

b. How many elements are there in this family? \_\_\_\_\_

Click on Post Transition Metals

c. What are three characteristics of Post Transition Metals? \_\_\_\_\_

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**Checkpoint #1 – Complete the Venn diagram below with as many characteristics as you can.**



