

Name _____

Periodic Table Website Lesson

Directions: Use the website address and information from the video shown in class to answer the following questions.

Sign on to the network, open internet explorer and answer the following questions.

www.chemicalelements.com

1. How many groups (families) are there in the Periodic Table? (Use reference tables)
2. How many elements are in your Periodic Table?
3. How many periods are there in your Periodic Table?
4. What is the basic theme of organization in the Periodic Table?
5.
 - a. Why are elements 57 through 70, and 89 through 102, found separately at the bottom of the table?
 - b. As what can the vast majority of elements in the Periodic Table be classified?
6. Look at the bold line shaped like a staircase on the right side of the table. What does it divide?
7.
 - a. What are the metalloids?
 - b. Provide three examples of metalloids.
 - c. What is a metalloid?
8. Describe two trends in the Periodic Table as you go from left to right along periods.
9. Group 1 includes the alkaline metals. What are the general properties of elements in this group?
10. Between groups 2 and 3 are the transition metals.
 - a. Describe the general properties of the transition metals.
 - b. List three examples of transition metals and their uses.
11. Group 14 is called the carbon group.
 - a. What is the element at the top of the group?
 - b. List three elements in this group and their uses.
12. Group 18 is referred to as the noble gases.
 - a. Briefly describe the characteristics of these elements.
 - b. List two elements in this group and their uses.

13

Find the element "oxygen."

- a. What does the "8" next to the chemical symbol signify?

- b. What does the number 15.999 signify?

14

Find the element "calcium."

- a. What is the chemical symbol for calcium?

- b. What is the atomic number of calcium?

- c. What is the atomic mass (weight) of calcium?

15

Find the element "copper."

- a. What is the chemical symbol for copper?

- b. What is atomic number of copper?

- c. What is the atomic mass (weight) of copper?

16

Find the element "nitrogen."

- a. What is its atomic number?

- b. How many electrons orbit its nucleus?

- c. How many protons does it have?

Name _____

Periodic Table Website Lesson

Directions: Use the website address and information from the video shown in class to answer the following questions.

Sign on to the network, open internet explorer and answer the following questions.

www.chemicalelements.com

Some additional information: *Below is your Periodic Table*

Periodic Table of the Elements																		
Period	Group																18	
1	1																	2
1	1																	2
2	1	2															10	18
3	1	2															10	18
4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

KEY

Atomic Mass → 12.0111 Selected Oxidation States → -4, +2, +4

Symbol → C

Atomic Number → 6

Electron Configuration → 2-4

Relative atomic masses are based on $^{12}\text{C} = 12.000$

Note: Mass numbers in parentheses are mass numbers of the most stable or common isotope.

**Denotes the presence of (2-8-) for elements 72 and above

*The systematic names and symbols for elements of atomic numbers above 109 will be used until the approval of trivial names by IUPAC.

8 Reference Tables for Physical Setting/Chemistry Reference Tables for Physical Setting/Chemistry 9

The periodic organized as follows:

- The columns are called groups or families
- The rows are called periods
- The elements in groups 3 – 12 are called the transition metals
- To the left of the staircase are the metals
- To the right of the staircase are the nonmetals
- On the staircase are the metalloids

Use the information and website listed above to answer the following questions.

17. Click on the group **Alkaline Metals Group** listed on the left hand side of the website. For each of the elements listed, state some general information:

Lithium

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Sodium

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Potassium

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Rubidium

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

18. Click on the group **Halogens Group** listed on the left hand side of the website. For each of the elements listed, state some general information:

Fluorine

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Chlorine

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Bromine

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Iodine

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

19. Click on the group **Rare Earth Elements Group** listed on the left hand side of the website. Chose (4) elements and state the following information.

Name _____

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Name _____

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Name _____

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

Name _____

- Date of Discovery _____
- Discoverer _____
- Name Origin _____
- Uses _____
- Obtained From _____

