

Chem I

Name \_\_\_\_\_

Date \_\_\_\_\_ Per \_\_\_\_\_

### Worksheet 3: Physical and Chemical Changes and the Periodic Table

#### I. The Demos

1. In the space below, draw the set-up for the distillation of ethyl alcohol. Label the two physical changes that occur when the distillation was happening.

2. What about water and alcohol makes separating them possible? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. In the space below, draw the set-up for the electrolysis demo. Label the one chemical change that occurred while the electrolysis was happening

#### II. The Periodic Table

1. Vertical columns on the periodic table are called \_\_\_\_\_ or \_\_\_\_\_,  
and horizontal rows across the periodic table are called \_\_\_\_\_.

## 2. What are the characteristics of

a. metals? \_\_\_\_\_

b. non-metals?

c. metalloids?

3. What are the six metalloids? Give both the symbols and the names.

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4. What are the names of the two rows of elements found in the box below most periodic charts?

\_\_\_\_\_ and \_\_\_\_\_

5. Complete the following tasks on the blank periodic table below:

- Draw light diagonal lines [/////] through all the metals.
- Draw light vertical lines [||||] through all the non-metals
- Draw light horizontal lines [=] through all the metalloids.
- Draw stars in the noble gases.
- Draw circles in all the alkali earth metals.
- Draw triangles in all the alkali metals.
- Draw squares in all the halogens.

A grid-in response area for a math test. It consists of two rows of bubbles. The top row has 15 bubbles, and the bottom row has 14 bubbles. The first bubble in the top row is marked with a blue 'A'. The first bubble in the bottom row is marked with a blue '10'.

6. What is another name for tungsten? \_\_\_\_\_

7. List the elements found in group 1. \_\_\_\_\_

8. List the elements that make up the alkaline-earth metals. \_\_\_\_\_

9. Describe the nature in which chemical properties change as you go down group 1 or group 2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. What sets noble gases apart from other groups on the periodic table? \_\_\_\_\_

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