

# Periodic Table Basics

**Step 1:** Complete the square for each element by filling in the atomic number, name, & atomic mass.

**Step 2:** Determine the number of protons, neutrons, and electrons in an atom of each element.


**Step 3:** Identify if the element is a solid, liquid, or gas at room temperature.

**Step 4:** Give the melting (M.P.) and boiling points (B.P.) in degrees Celsius.

**Step 5:** List at least three physical or chemical properties for each element.

**Step 6:** List at least three uses for each element.

**Step 7:** Draw a Bohr diagram and Lewis Structure to show the arrangement of electrons and the number of valence electrons.

① <div style="text-align: center; font-size: 2em; font-weight: bold;">B</div>	P= ② N=____ E=____	③ O S O L O G
		M.P. = _____ B.P. = ④ _____
Properties ⑤		
Uses ⑥		
Bohr Diagram    Lewis Structure		
		⑦ <div style="font-size: 2em; font-weight: bold;">B</div>

**Step 8:** Use the following colors to shade in the square for each element. You should ONLY color the small square in the upper left-hand corner and not the entire card.

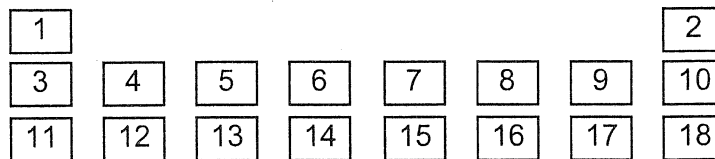
Green = Li & Na  
Orange = B & Al

Pink = O & S  
Red = C & Si

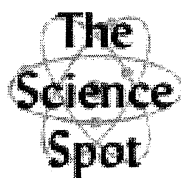
Blue = Be & Mg  
Tan = N & P

Purple = F & Cl  
Yellow = He, Ne, & Ar

**Step 9:** Cut the cards apart and arrange according to atomic number in the pattern shown. Once you have the cards arranged in the correct order, glue them to a large sheet of construction paper.



Done? Answer the questions on the worksheet using the information on your Periodic Table!



Need information? Visit the Periodic Table links on the Chemistry page of the Kid Zone!

Go to <http://sciencespot.net/> and click the Kid Zone graphic!

**Periodic Table Basics**

Name \_\_\_\_\_

**Use your periodic table to answer each question.**

1. How many elements in your table were:

(a) solids? \_\_\_\_\_ (b) liquids? \_\_\_\_\_ (c) gases? \_\_\_\_\_

2. Which elements had complete outer shells? Give the name and symbol for each.

\_\_\_\_\_

3. What do you notice about the location of the elements in Question #2?

4. Which elements had only one valence electron? Give the name and symbol for each.

\_\_\_\_\_

5. What do you notice about the location of the elements in Question #4?

6. What do you notice about the number of valence electrons as you move from left to right across a period (or row) in the periodic table? (Example: Na → Ar)

7. What do you notice about the number of valence electrons as you move down a group or column in the periodic table? (Example: H → Li → Na)

8. What do you notice about the number of energy levels or shells as you move down a group or column in the periodic table? (Example: H → Li → Na)

9. What do you notice about the melting points as you move from left to right across a period (or row) in the periodic table? (Example: Li → Ne)

10. What do you notice about the boiling points as you move from left to right across a period (or row) in the periodic table? (Example: Li → Ne)