

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Chemistry



# Spring Review

**DIRECTIONS:** Tell how many significant figures.

\_\_\_\_\_ 5091 g    \_\_\_\_\_ 7600 L    \_\_\_\_\_ 10.0 cm    \_\_\_\_\_ 2,000 kg    \_\_\_\_\_ 98.6° C  
\_\_\_\_\_ 67.004    \_\_\_\_\_ .005    \_\_\_\_\_ 4050    \_\_\_\_\_ .20000    \_\_\_\_\_ 1,000,000

**DIRECTIONS:** Complete the following conversion factors.

\_\_\_\_\_ centimeters = 1 inch    \_\_\_\_\_ quarts = 1 liter    \_\_\_\_\_ grams = 1 pound

**DIRECTIONS:** Read each question carefully and give the best answer for the situation.



\_\_\_\_\_ What kind of ion is it?    \_\_\_\_\_ How many neutrons?  
\_\_\_\_\_ How many protons?    \_\_\_\_\_ How many electrons?

**DIRECTIONS:** List the three major subatomic particles, the charge, the location and the relative mass.

Subatomic Particle	Charge	Location	Mass

**DIRECTIONS:** Write the electron notation for the following. (example:  $1s^2$ )

N \_\_\_\_\_  
Cl \_\_\_\_\_  
Ti \_\_\_\_\_  
Ca \_\_\_\_\_

**DIRECTIONS:** Write the orbital notation for the following elements. (example:  $\uparrow\downarrow$ )

P \_\_\_\_\_  
Cr \_\_\_\_\_  
Mg \_\_\_\_\_

**DIRECTIONS:** Describe valence electrons.

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**Directions:** Determine the number of valence electrons for the following elements.

\_\_\_ B    \_\_\_ Ge    \_\_\_ S    \_\_\_ P    \_\_\_ Ba    \_\_\_ K    \_\_\_ Cl

**Draw** the electron dot diagram for the following atoms:

boron	germanium	sulfur	phosphorus
barium	potassium	lead	Chlorine

**DIRECTIONS:** Write the octet rule.

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**Directions:** Determine the possible charge in the following elements.

\_\_\_ B    \_\_\_ Ge    \_\_\_ S    \_\_\_ P    \_\_\_ Ba    \_\_\_ K    \_\_\_ Cl

**Directions:** Determine the number of bonds expected in the following elements.

\_\_\_ B    \_\_\_ Ge    \_\_\_ S    \_\_\_ P    \_\_\_ Ba    \_\_\_ K    \_\_\_ Cl

**DIRECTIONS:** Write the modern periodic law.

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**DIRECTIONS:** Describe electronegativity.

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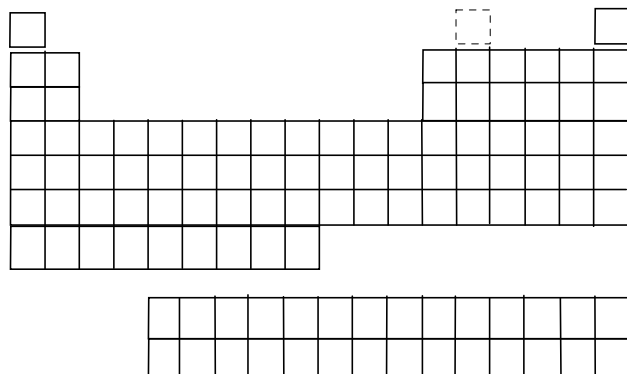
**DIRECTIONS:** Label the periodic table below.

s, p, d, and f blocks  
noble gases

halogens  
alkali metals

chalcogens  
metalloids

alkaline earth metals  
transition metals



**DIRECTIONS:** List the characteristics for the following element families.

**Alkali Metals:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**Alkaline Earth Metals:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**Boron Family:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**Carbon Family:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**Pnictogens:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**Chalcogens:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**Halogens:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**Noble Gases:**

valence: \_\_\_\_\_ charge: \_\_\_\_\_ bonds: \_\_\_\_\_

**"Successful people are simply those with successful habits." - Brian Tracy**