Basic Physical Science Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ionic Bonding Review 2019 \_\_\_\_\_\_\_\_/\_\_\_23\_\_\_ Period \_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

Matching I (1 pt each)

1. 2 or more elements chemically combined to form a new substance
2. Formed when an atom gains electrons
3. Formed when an atom loses electrons
4. Elements to the left of the stair step
5. Elements to the right of the stair step
6. Electrons found in the outer energy level
7. \_\_\_\_\_\_ Metal
8. \_\_\_\_\_\_ Compound
9. \_\_\_\_\_\_ Nonmetal
10. \_\_\_\_\_\_ Valence e-
11. \_\_\_\_\_\_ Neg ion
12. \_\_\_\_\_\_ Pos ion
13. What types of elements form an ionic bond?
14. \_\_\_\_\_\_\_\_\_\_\_ are more likely to gain electrons and be \_\_\_\_\_\_\_\_\_ charged, while \_\_\_\_\_\_\_\_\_\_\_\_\_ are more likely to lose electrons and be \_\_\_\_\_\_\_\_\_\_ charged.
15. A compound is when 2 or more elements \_\_\_\_\_\_\_\_\_\_\_\_\_\_ combine to form a substance with \_\_\_\_\_\_\_\_ properties.
16. From the following list of symbols, choose two elements that are likely to form an ionic bond: O, Ne, S, Ca, K.
17. Draw electrons dot diagrams for:  
      
     Na Be N
18. Use the steps for drawing an ionic bond:
    1. Make sure you have a metal and nonmetal.
    2. Draw electron dot diagrams.
    3. Draw bond including:
       1. Symbol
       2. Brackets
       3. Move electrons
       4. Write charges
       5. Coefficients if needed

Mg & Cl Ba & O K & S

Basic Physical Science Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Covalent Bonding Review 2019 \_\_\_\_\_\_\_\_/\_\_\_27\_\_\_ Period \_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

Matching I (1 pt each)

1. Element that only requires 2 valence electrons.
2. Bond that shares 2 electrons
3. Rule that states \*all\* elements desire 8 valence electrons.
4. No overall charge
5. Bond that shares 4 electrons
6. Bond that shares 6 electrons
7. \_\_\_\_\_\_ Octet Rule
8. \_\_\_\_\_\_ Hydrogen
9. \_\_\_\_\_\_ Single bond
10. \_\_\_\_\_\_ Double bond
11. \_\_\_\_\_\_ Triple bond
12. \_\_\_\_\_\_ Neutral
13. What types of elements form a covalent bond?
14. A compound is when 2 or more elements \_\_\_\_\_\_\_\_\_\_\_\_\_\_ combine to form a substance with \_\_\_\_\_\_\_\_ properties.
15. Identify whether the following statements describes an ionic bond (I) or a covalent bond (C). If both, write I & C.
    1. \_\_\_\_\_ Shares electrons e. \_\_\_\_\_ Wants to satisfy Octet Rule
    2. \_\_\_\_\_ Forms ions (has charges) f. \_\_\_\_\_ Dot-to-dot
    3. \_\_\_\_\_ Is neutral (no charges) g. \_\_\_\_\_ Includes brackets [ x ]
    4. \_\_\_\_\_ Transfers electrons e. \_\_\_\_\_ Starts with electron dot diagrams
16. From the following list of symbols, choose two elements that are likely to form a covalent bond: O, Ne, S, Ca, K.
17. Draw electrons dot diagrams for:  
      
     Si Ne S
18. Use the steps for drawing a covalent bond:
    1. Make sure you have a 2 nonmetals.
    2. Draw electron dot diagrams. \*Electrons don’t share a side until all the sides have at least 1.
    3. Play “dot-to-dot” with the lone electrons.
    4. Check the Octet Rule for each atom.
    5. Add additional atoms if needed.

Br & Br H & O C & Cl