Families Reinforcement (S332.2.8) Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chem 332 – O’Dette Date \_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_

Directions: Choose the family of elements that correctly matches each description.

A. Alkali Metals C. Transition Metals E. Noble Gases

B. Alkaline Earth Metals D. Halogens

1. This family is nonreactive with respect to chemical activity.
2. This family consists of the most active metals and must be kept in oil to keep it from reacting.
3. This family is filling the d orbitals.
4. This family has two electrons in the outer s orbital and is the second most reactive family.
5. This family has a tendency to gain one electron to completely fill its outer p orbital.
6. This family has full s and p orbitals and always satisfies the octet rule.
7. This family has one electron in its out energy level and that is why it is so reactive.

Directions: Choose the correct answer and then provide information in the space provided for why you selected that choice.

1. Which element has properties most similar to lithium? **Beryllium or Sodium**
2. Which members of a (**Family or Period**) have similar arrangements of outer electrons and thus react similarly?
3. Which atomic particle is involved in chemical reactions? **proton, neutron, electron**
4. Elements in the same period have the same number of (**electrons in the outer energy level or energy levels**)?