

Name _____

Hour _____

Draw a dot diagram for the following elements.

1. Hydrogen

2. Neon

3. Calcium

4. Sulfur

5. Aluminum

6. Barium

7. Silicon

8. Oxygen

9. Xenon

10. Helium

11. Tin

12. Iodine

13. Radon

14. Potassium

Please answer the questions on the back.

1. Why do you pair up the electrons in Helium?

2. What do dot diagrams show us about the electrons?

3. When do you start to pair up the electron dots?

4. If you have a dot diagram with 8 dots (4 pairs), what does that tell you about the element?

5. What is the "goal" of an element in bonding chemically (what does it need to do to be stable?)

6. Explain how an ionic bond holds molecules together.

7. Explain how a covalent bond holds molecules together.

8. What is the term for the electrons in the outer shell?

9. In dealing with bonding, is it the total number of electrons, or the number of electrons in the outer shell that matters?
