

Skills Worksheet

Reinforcement

Interview With an Electron

Complete this worksheet after you finish reading the section “Covalent and Metallic Bonds.”

The following descriptions are from the point of view of electrons that are participating in three different types of bonds—ionic, metallic, and covalent. Identify the type of bond that each electron describes. At the bottom of the page is a list of characteristics of bonds and substances containing the bonds. Match each characteristic with the corresponding bond, and write the characteristic in the space provided.

1. My buddies and I do not feel bound to the energy level of one atom in particular, so we can swim freely throughout the substance.

Type of bond: _____

Characteristics: _____

2. I might change sides at the start, but once I end up on one side or the other I stick to my decision.

Type of bond: _____

Characteristics: _____

3. I do not feel partial to either of the atoms in my bond. To be fair, the other bonding electron and I divide our time between the bonded atoms.

Type of bond: _____

Characteristics: _____

CHARACTERISTICS

- There's a transfer of electrons.
- Two or more nonmetals are involved.
- There's an attraction of positive ions and free moving electrons
- A metal reacts with a nonmetal.
- Compounds have a crystal-lattice structure.
- Substances are good conductors of electric current.
- There's an attraction between nuclei and shared electrons.