Name : ---------- Date : ----------

Chemical Bonding Review Worksheet

1. Differentiate between ionic and covalent bonding in the form of a table.

2. Why do ionic compounds conduct electricity?

3. Which part of the atom takes part in chemical bonding?

Name : ---------- Date : ----------

Chemical Bonding Review Worksheet

Answers

1. Differentiate between ionic and covalent bonding in the form of a table.

Ionic Bonding	Covalent Bonding
When a metal transfers its electrons to a non-metal, it forms an ionic bond	When non-metals share electrons to become stable, the bond they form is covalent
The compounds formed by ionic bonding are generally hard and crystalline	The compounds formed by covalent bonding are generally soft and malleable
They are hard to separate as the ions in the compound are firmly bound, requiring a lot of energy to break the attraction between positive and negative charges	Easily separated as the atoms in a covalent compound share electrons
High melting and boiling points	Low melting and boiling points
Less flammable	More flammable
High electrical conductivity	Low electrical conductivity

2. Why do ionic compounds conduct electricity?

After dissolving in water, the constituent ions of a compound dissociate and move freely throughout the solution. This free movement is the reason these compounds conduct electricity.

3. Which part of the atom takes part in chemical bonding?

The electrons present on the outermost shell of the atom, i.e., the valence electrons, are either transferred or shared to form chemical bonds.