

## Ionic and Covalent Compound Lab 2.2

**Research Question:** What is the difference between ionic and covalent compounds experimentally? How can we break the bonds of compounds?

**Intro:** Ionic bonds usually have a very melting and boiling point. They do not have a particularly distinct shape. Covalent bonds happen when electrons are shared between atoms, and have a distinct shape.

**Procedure:** First, pour approximately 150 mL of water into each beaker. Put one rounded spatula full of sugar into one beaker of water and mix thoroughly. Next, put a spatula of baking soda into the other beaker of water and mix thoroughly. Prepare your battery with leads. Stick the battery with attached leads into the sugar water first then observe and record. Next, put the battery with leads into the baking soda mixture, then observe and record.

**Results:** Nothing much happened when we put the battery into the sugar water. After we put the battery into the baking soda, it reacted with bubbling and fizzing.

**Conclusion:** Ionic compounds conduct electricity while covalent compounds do not. Sugar is the covalent and baking soda is the ionic. Ionics have metals in them and metals conduct electricity. Baking soda has metal in it.

### **Vocab:**

Compounds- Substances that can be decomposed into elements by chemical means.

Chemical Reaction- A process by which one or more substances change into one or more different substances.

Ionic Compound- A compound formed by ions.

Covalent Compound- A compound formed by atoms that share electrons.