**Properties of Ionic Compounds Race – Topics**

1. Why do ionic compounds have high melting and boiling points?
2. Determine whether the compounds below are most likely ionic or not ionic:

* A compound with a melting point of 780 degrees Celsius and dissolves in water.
* A compound that catches fire when heated and has a rubbery texture.
* A compound that is a liquid.
* A compound that forms large, purple crystals.

1. Why are ionic compounds hard?
2. Why do ionic compounds generally dissolve well in water?
3. Sodium acetate is a chemical compound that has a melting point of 324 degrees Celsius, exists as a crystalline powder, and burns when heated over a Bunsen burner. Is sodium acetate ionic? Explain your reasoning.