**Properties of Ionic Compounds Worksheet**

1. Explain why ionic compounds do not conduct electricity in their crystalline form. (ie: what is needed to conduct a flow of electrons?)
2. Why do metals and nonmetals usually form ionic compounds, whereas two bonded nonmetals are never ionic? Explain.
3. Why do ionic compounds tend to be hard?
4. Describe whether the following compounds are likely to be ionic or not ionic based on the properties given. Explain your reasoning.

* Compound 1 has a melting point of 545 degrees Celsius and dissolves well in water.
* Compound 2 is is a brittle material that is used to melt road ice during storms.
* Compound 3 melts at 85 degrees Celsius and catches fire when heated to 570 degrees Celsius.