**Chemistry 11** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 4 – Solution Chemistry Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Block: \_\_\_\_\_

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| **Worksheet #3 - Polarity and Conductivity** |

1. Define polar and non-polar, and draw an example of each.
2. What is a hydrogen bond?
3. Draw a picture of a hydrogen bond. Explain why hydrogen bonds are important.
4. Would you expect NaCl to dissolve in oil, which is a non-polar solvent? Explain.
5. Will ammonia dissolve in water? Explain.
6. Which is more soluble in water: C2H6 or CH3OH? Explain.
7. How can you tell from a substance’s formula if it is ionic or molecular? Give two examples of an ionic compound.
8. Sugar has the formula C12H22O11. Will a sugar solution conduct electricity? Explain.
9. Indicate whether or not the compounds below will conduct electricity.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Conducts Electricty** | **Does Not Conduct Electricity** |  | **Conducts Electricity** | **Does Not Conduct Electricity** |
| K2CrO4*(aq)* |  |  | NaOH*(aq)* |  |  |
| NaNO3*(s)* |  |  | Cu*(s)* |  |  |
| FeCl3*(aq)* |  |  | NaCl *(aq)* |  |  |
| CO2*(s)* |  |  | Hg*(l)* |  |  |
| LiBr *(aq)* |  |  | HBr*(s)* |  |  |