

## BONDING EXPERIMENT

Use a periodic table (student manual, page 26) to determine if each of the following compounds is composed of metals, non-metals, or both.

Water –  $\text{H}_2\text{O}$  is composed of \_\_\_\_\_

Baking soda –  $\text{NaHCO}_3$  is composed of \_\_\_\_\_

Sugar (sucrose) –  $\text{C}_{12}\text{H}_{22}\text{O}_{11}$  is composed of \_\_\_\_\_

Salt –  $\text{NaCl}$  is composed of \_\_\_\_\_

Olive oil –  $\text{C}_{17}\text{H}_{35}\text{COOH}$  is composed of \_\_\_\_\_

State your hypotheses below and then perform the experiment on page 51 of your student manual.

Compound tested	Will it conduct electricity? (Hypothesis)	Did it conduct electricity? (Observations)	Ionic or covalent? (Conclusions)
Distilled water			
Baking soda			
Sugar			
Salt			
Olive oil			

Were any of your guesses wrong? If so, try to find out about that substance and see if it is really ionic or covalent and try to understand why each substance acted the way it did. Checking your hypothesis and understanding your results is an important part of scientific experimentation.