

# Teacher's Manual • Unit 7

5. (a) HCl; (b) CaO; (c) KI; (d) MgCl<sub>2</sub>; (e) KCl; (f) SiO<sub>2</sub>; (g) NaI; (h) Na<sub>2</sub>S; (i) BaCl<sub>2</sub>; (j) Al<sub>2</sub>O<sub>3</sub>; (k) LiBr; (l) SrCl<sub>2</sub>; (m) KF; (n) CaF<sub>2</sub>; (o) B<sub>2</sub>S<sub>3</sub>. It would be well to do several with the class before they are to try to do this exercise on their own. Below are several that are not included in the exercise. You can use these for class discussion.

hydrogen, sulfur—H<sub>2</sub>S

magnesium, oxygen—MgO

magnesium, iodine—MgI<sub>2</sub>

potassium, oxygen—K<sub>2</sub>O

carbon, chlorine—CCl<sub>4</sub>

aluminum, bromine—AlBr<sub>3</sub>

aluminum, sulfur—Al<sub>2</sub>S<sub>3</sub>

## Study Exercises: Group F (255)

- hydrogen, hydroxyl (OH)
- base
- sodium hydroxide, NaOH, B
  - acetic acid, HC<sub>2</sub>H<sub>3</sub>O<sub>2</sub>, A
  - sulfuric acid, H<sub>2</sub>SO<sub>4</sub>, A
  - calcium hydroxide, Ca(OH)<sub>2</sub>, B
  - hydrochloric acid, HCl, A
  - magnesium hydroxide, Mg(OH)<sub>2</sub>, B
  - ammonium hydroxide, NH<sub>4</sub>OH, B
- calcium hydroxide
  - magnesium hydroxide
  - boric acid
  - sulfuric acid
  - acetic acid
  - hydrochloric acid, sodium hydroxide, ammonium hydroxide
  - sodium hydroxide
  - hydrochloric acid
- water. Water is essential to life; it is needed in large quantities; it will dissolve many materials; it is used in cleaning and fire fighting; lakes, rivers, streams, and waterfalls contribute to the beauty of God's world.
- nine. Some examples to illustrate various combinations are given following. The acids used are H<sub>2</sub>SO<sub>4</sub>, HCl, and H<sub>3</sub>BO<sub>3</sub>; the bases are NaOH, Ca(OH)<sub>2</sub>, and Mg(OH)<sub>2</sub>.

