

- Write a general statement that describes the periodic trend in metal activity within a period (horizontal row) of the periodic table.
- Locate the following metals on the periodic table: **magnesium**, **potassium**, and **sodium**. Based on your answers to Questions 4 and 5, rank these metals in order of their expected activity, from most active to least active.
- Litmus paper changes color in acidic (red) and basic (blue) solutions. The word alkaline is a synonym for basic. Give two reasons why the Group 2 metals are called **alkaline earth** metals.
- Which alkaline earth metal formed the most precipitates? The fewest?
- Write a general statement describing the periodic trend in the solubility of alkaline earth metal compounds.
- Use the solubility pattern observed for the known and unknown alkaline earth compounds to deduce the identity of the unknown alkaline earth ion. Explain your reasoning.
- Using Equation 1 in the *Background* section as an example, write a chemical equation for each precipitate-forming reaction that was observed for **strontium**. Include the abbreviations (aq) and (s) to show what compound is responsible for the precipitate in each case.