

Section 6.4 Families of Elements - Answer Key

- 1) What is the term chemical family used to describe? **The term chemical family is used to describe related elements.**
- 2) Which three elements are often referred to as coinage metals? **Copper, silver and gold are often referred to as coinage metals.**
- 3) In 1850, how many elements had chemists identified? **In 1850, chemists had identified 58 elements.**
- 4) Who successfully sorted elements according to their atomic mass? **Russian chemist Dimitri Mendeleev successfully sorted elements according to their atomic mass.**
- 5) What is the name for a vertical column in the periodic table? **The name of a vertical column in the periodic table is called a group.**
- 6) What are the horizontal rows of the periodic table called? **The horizontal rows of the periodic table are called periods.**
- 7) Which group are the alkali metals in? **The alkali metals are in group 1 (1st column).**
- 8) What do the alkali metals react with? **The alkali metals react rapidly when exposed to air and water.**
- 9) Why can't hydrogen exist as a single atom? **Hydrogen can't exist as a single atom because it is so reactive.**
- 10) Which metals are the most reactive? **The alkali metals are the most reactive.**

11) Which non-metals are the most reactive? **The halogens are the most reactive non-metals.**

12) Where are the halogens located on the periodic table? **The halogens are located in group 17 (the 2nd last column) of the periodic table.**

13) Which two elements is salt made from? **Salt is made from sodium and chloride.**

14) What is group 18 called? **Group 18 is called the noble gases.**

15) Where is group 18 located on the periodic table? **Group 18 is located in the last column (far right) of the periodic table.**

16) Why are they called noble gases? **They are called noble gases because they are chemically non-reactive (calm). Historically, calmness was thought to be a characteristic of nobility.**