

Chemical Changes Exercises

Metals and oxides

A metal will react with oxygen to form a metal oxide. *Complete the blank spaces below:*

1. magnesium + oxygen \rightarrow _____
2. copper + oxygen \rightarrow _____
3. zinc + _____ \rightarrow zinc oxide
4. _____ + oxygen \rightarrow calcium oxide

Metals and water

Reactive metals will react in water to produce a metal hydroxide and hydrogen gas.

Complete the blanks below:

5. lithium + water \rightarrow lithium hydroxide + _____
6. sodium + _____ \rightarrow sodium hydroxide + hydrogen
7. _____ + water \rightarrow calcium _____ + hydrogen
8. potassium + water \rightarrow _____ + _____

Metals and acid

Metals will react with acid to form a metal salt and hydrogen

The name of the salt depends on the acid used.

Select the correct salt name from the acid used in the reaction:

Acid used	Salt name after reaction
Hydrochloric acid	
Sulfuric acid	
Nitric acid	

Fill in the blanks below:

9. zinc + hydrochloric acid \rightarrow zinc chloride + _____
10. sodium + sulfuric acid \rightarrow _____ + hydrogen
11. calcium + _____ acid \rightarrow calcium nitrate + _____
12. _____ + _____ \rightarrow magnesium chloride + hydrogen