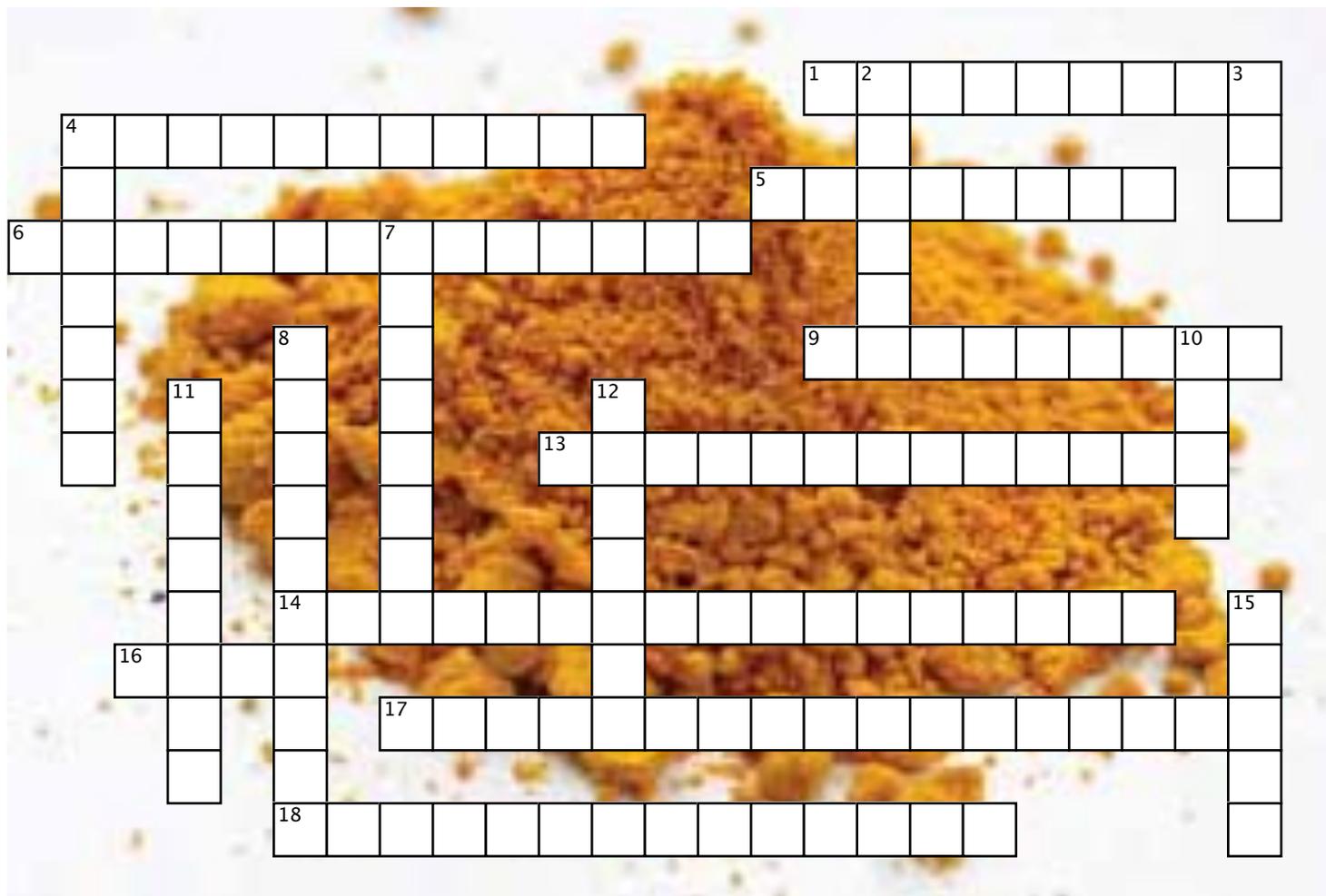


# 6.1 Types of Chemical Reactions



## Across

1. You can identify each type of chemical reaction by examining the \_\_\_\_\_.
4. An insoluble solid that forms from a solution.
5. When two or more reactants (A and B) combine to produce a single product (AB), for example, the letters A and B represent \_\_\_\_\_.
6. When sodium hydroxide solution is mixed with iron(III) chloride, a precipitate occurs involving the iron(III) ion. This is a double replacement reaction producing iron hydroxide and \_\_\_\_\_.
9. Two or more reactants (A and B) combine to produce a single product (AB).
13. This type of reaction is the reverse of a synthesis reaction.
14. A reactive element (a metal or a nonmetal) and a compound react to produce another element and another compound.
16. When iron reacts with oxygen, \_\_\_\_\_ is produced.
17. A \_\_\_\_\_ reaction usually involves two ionic solutions that react to produce two new ionic compounds.
18. In a \_\_\_\_\_ reaction, an acid and a base react to form a salt and water.

## Down

2. All known chemical reactions require \_\_\_\_\_ to break the chemical bonds in the reactants.
3. Chemists have identified \_\_\_\_\_ common types of reactions.
4. For ionic compounds, you can use the ion charges to predict the \_\_\_\_\_.
7. Zinc metal reacts with hydrochloric acid to produce zinc chloride and \_\_\_\_\_ gas.
8. The rapid reaction of a compound or element with oxygen to form an oxide.
10. When synthesis reactions occur between a metal and non-metal, electrons are transferred from the metal to the non-metal, producing \_\_\_\_\_.
11. To make table salt in a synthesis reaction, two atoms of sodium metal and one \_\_\_\_\_ of chlorine gas react to form sodium chloride, NaCl.
12. During decomposition of an ionic compound, electrons transfer back to the atoms of the metal and each element becomes electrically \_\_\_\_\_.
15. When a hydrocarbon and oxygen combust, the products are two oxides, \_\_\_\_\_ and carbon dioxide.