Stile

aqueous solution

Chemical Reactions

Stile

atom

Chemical Reactions

Stile

balanced

Chemical Reactions

Stile

chemical bond

Chemical Reactions

Stile

chemical equation

Chemical Reactions

Stile

chemical formula

Chemical Reactions

Stile

chemical reaction

Chemical Reactions

Stile

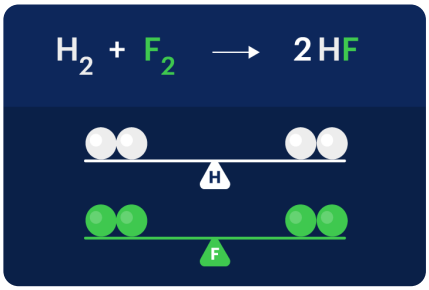
chemical symbol

Chemical Reactions

Stile

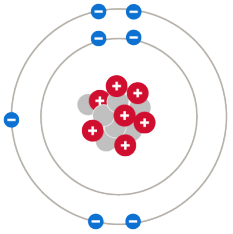
coefficient

Chemical Reactions



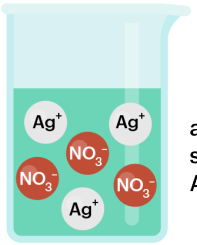
An equation with equal numbers of atoms of each element on either side

A balanced chemical equation follows the law of conservation of matter.



The smallest particle of an element

An atom is made up of even smaller subatomic particles – protons, neutrons and electrons.

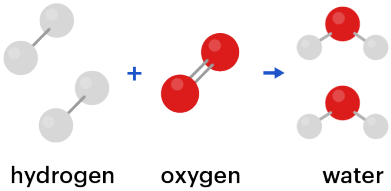


A mixture in which a substance is dissolved in water

If a substance is in an aqueous solution, it is represented using the symbol (aq).

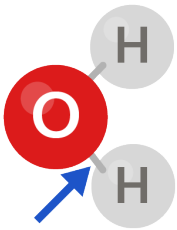
A symbol that shows the chemical composition of a molecule or lattice

The chemical formula for water is H_2O as each molecule has two hydrogen atoms and one oxygen atom.



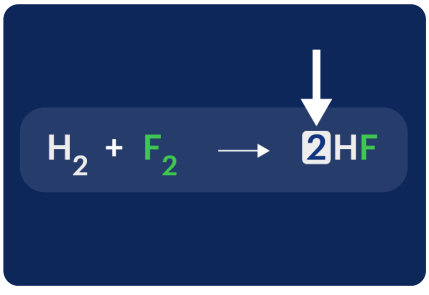
A representation of how a chemical reaction rearranges atoms

A chemical equation can be represented in words, symbols, or diagrams.



An attractive force that holds atoms together

A chemical bond can hold atoms together in a molecule or lattice.

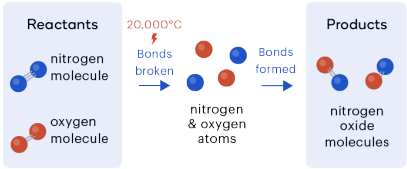


A number placed before a formula in a chemical equation

A coefficient is placed before a formula, whereas a subscript is used within it.

One or two letters used to represent an element

The first letter of a chemical symbol is uppercase and the second letter is lowercase.



The re-arrangement of atoms to form one or more new substances

In a chemical reaction the number of each type of atom remains the same.

Stile

compound

Chemical Reactions

Stile

element

Chemical Reactions

Stile

law of conservation of matter

Chemical Reactions

Stile

molecule

Chemical Reactions

Stile

periodic table

Chemical Reactions

Stile

physical change

Chemical Reactions

Stile

product

Chemical Reactions

Stile

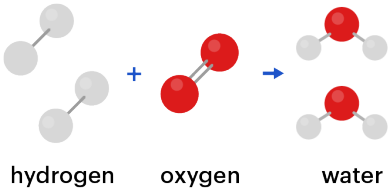
reactant

Chemical Reactions

Stile

reactive

Chemical Reactions

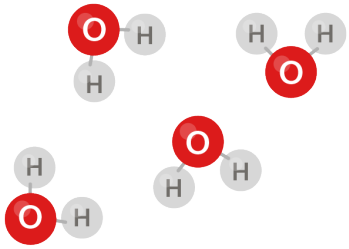


The rule that the number of atoms in a chemical reaction remains the same

During all chemical reactions, the total number of atoms of each element doesn't change.

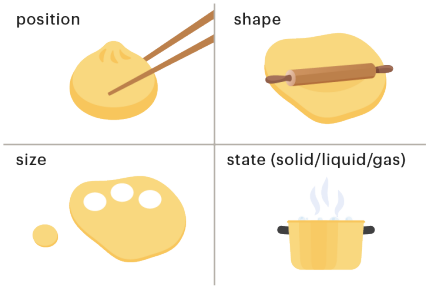
A substance made up of only one type of atom

Gold is an element in which every atom has 79 protons.



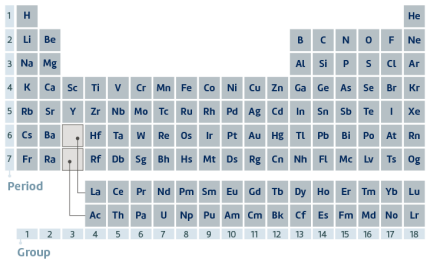
Two or more elements joined together by chemical bonds

The compound sodium chloride consists of sodium and chloride atoms chemically bonded together.



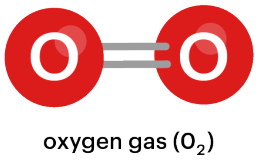
A change in matter that does not form new substances

Physical changes include breaking, mixing and changing the state of a substance.



The organisation of chemical elements in order of atomic number

The periodic table arranges elements with similar properties in the same group (column).



A group of atoms bonded together

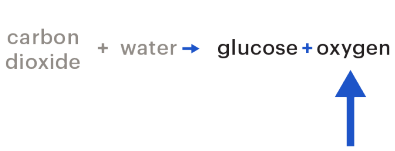
An oxygen gas molecule is made up of two oxygen atoms bonded together.

Tending to take part in chemical reactions

Sodium is one of the most reactive elements in the periodic table.

A substance that reacts to form one or more new substances

In a chemical equation, the reactants are located to the left of the arrow.



A substance formed by a chemical reaction

In a chemical equation, the products are located to the right of the arrow.

Stile

state symbol

Chemical Reactions

Stile

structural equation

Chemical Reactions

Stile

subscript

Chemical Reactions

Stile

symbol equation

Chemical Reactions

Stile

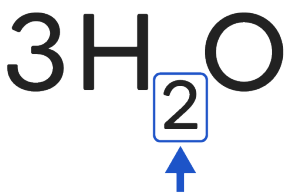
unbalanced

Chemical Reactions

Stile

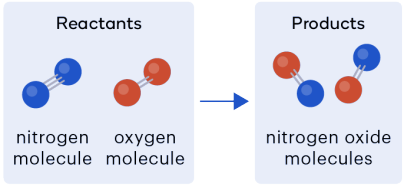
word equation

Chemical Reactions



A number used to show how many atoms of an element are present

The subscript 2 in H_2O shows there are 2 hydrogen atoms present in water.



A type of equation that shows how the atoms are rearranged

Structural equations can use ball-and-stick models to show how atoms rearrange.

Symbol	Meaning	Example
(s)	solid	Na (s)
(l)	liquid	H_2O (l)
(g)	gas	CO_2 (g)
(aq)	aqueous (dissolved in water)	HCl (aq)

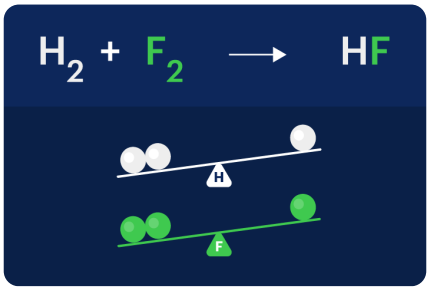
A symbol used to indicate the state of matter of a substance

The state symbol (s) is used for solids, (l) for liquids, (g) for gases, or (aq) for aqueous solutions.

carbon monoxide + water → carbon dioxide + hydrogen

A chemical equation that uses names to represent substances

A word equation would represent ammonium in an equation as the word ammonium.



An equation with an unequal number of atoms on either side

Unbalanced equations must be balanced so that they follow the law of conservation of matter.

$NaOH + HCl \rightarrow NaCl + H_2O$

A chemical equation that uses chemical formulas to represent substances

A symbol equation would represent ammonium as the chemical formula NH_3.