

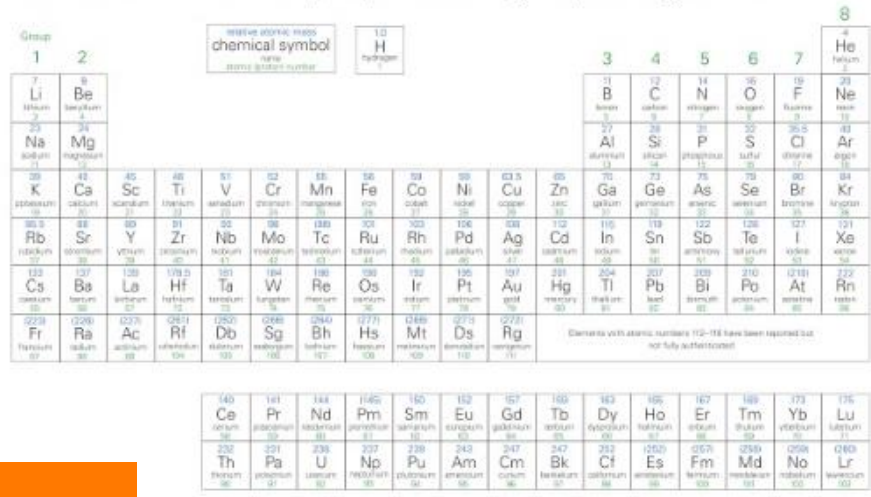
Section 1- Elements

An **element** is a substance that cannot be broken down into other substances.

There are millions of materials but only 92 **elements** that exist naturally.

Every element has its own chemical **symbol** which are shown together in the **Periodic Table**.

The **Periodic Table** lists the elements. In the Periodic Table, elements with similar properties are grouped together.

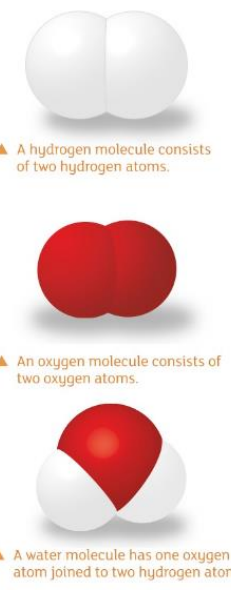


Section 3 - Compounds

A **compound** is a substance made up of more than one type of atom.

A **molecule** is a group of two or more atoms bonded together.

Hydrogen and oxygen are both elements, but when they react together they form the compound of water.



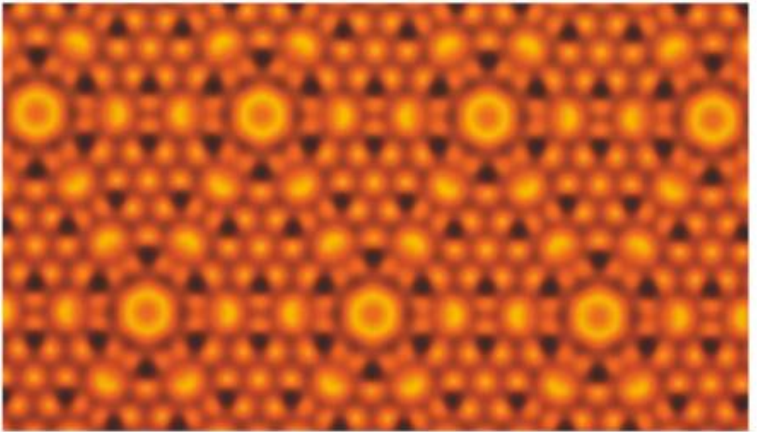
▲ A hydrogen molecule consists of two hydrogen atoms.
 ▲ An oxygen molecule consists of two oxygen atoms.
 ▲ A water molecule has one oxygen atom joined to two hydrogen atoms.

Section 2- Atoms

An **atom** is the smallest part of an element that can exist.

Each element is made up of only one sort of atom.

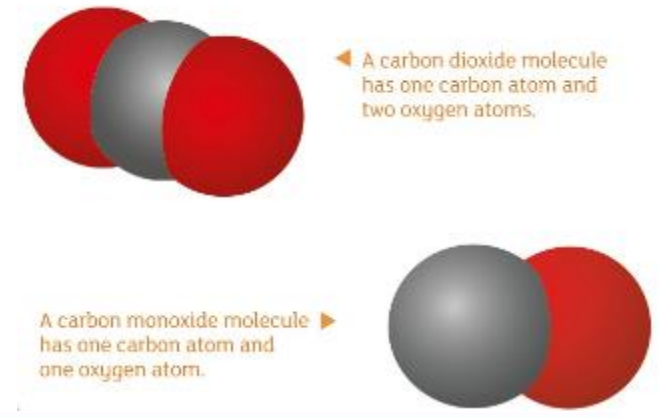
This image shows the surface of a silicon crystal, known as silicon chips. We use these in many electronic products.



Section 4 - Chemical formulae

A **chemical formula** shows the relative numbers of each element in a compound, which means how many atoms there are in an element compared to another.

CO₂ is carbon **dioxide** because it has 2 oxygen atoms. CO is carbon **monoxide** because it only has one oxygen atom.



▲ A carbon dioxide molecule has one carbon atom and two oxygen atoms.
 ▶ A carbon monoxide molecule has one carbon atom and one oxygen atom.

Molecule of compound made up of...	Name of compound
1 carbon atom and 1 oxygen atom	carbon monoxide
1 carbon atom and 2 oxygen atoms	carbon dioxide