

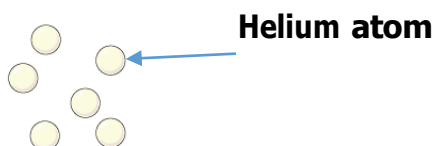
Elements, Mixtures and Compounds

Atoms and molecules

An **element** is one type of atom, like carbon, gold or chlorine. We will look at **three ways** that atoms can exist.

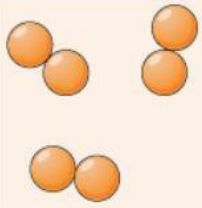
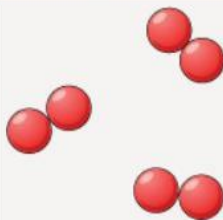
1. Single atoms

When the atoms of some elements do not join up with other atoms. They stay as **single atoms**. The element helium is like this. Helium atoms do not join up with each other or any other element and it is a gas.



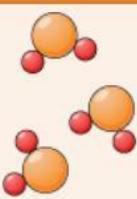
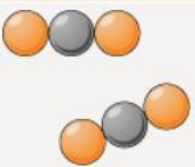
2. Molecules of elements

When atoms of the same element joined together we get a molecule of that element.

Molecule name	Image
Oxygen	
Hydrogen	

3. Compounds

A compound is made when atoms of different elements joined together by chemical bonds. This means that compounds will always exist as molecules, not separate atoms. The diagrams show some molecules of common compounds.

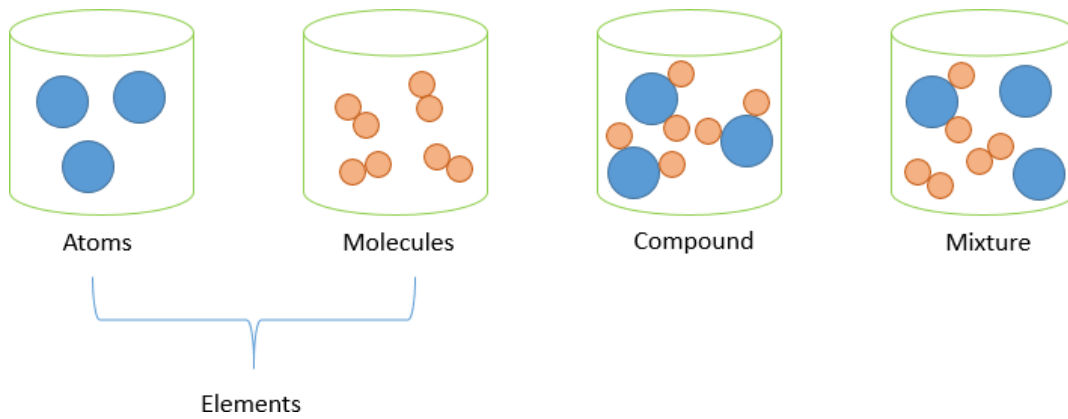
Compound name	Image
Water molecule	
Carbon dioxide molecule	

What is a mixture?

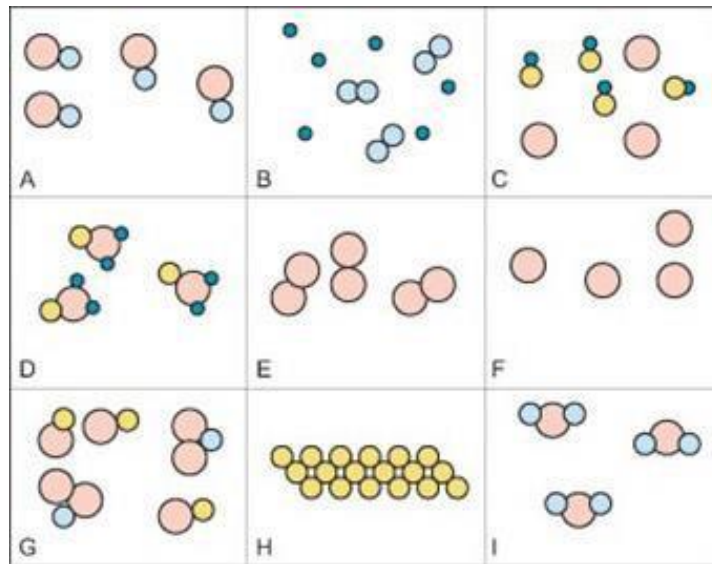
A **mixture** is made from different substances that are **not chemically bonded together**.



In summary:



Test yourself



Write the correct letters below.

1. 1 type of element: _____
2. 1 type of compound: _____
3. Mixture of elements: _____
4. Mixture of compounds: _____
5. Mixture of elements and compounds: _____
6. Molecules of elements? _____
7. Which letter could be showing water (H₂O)? _____