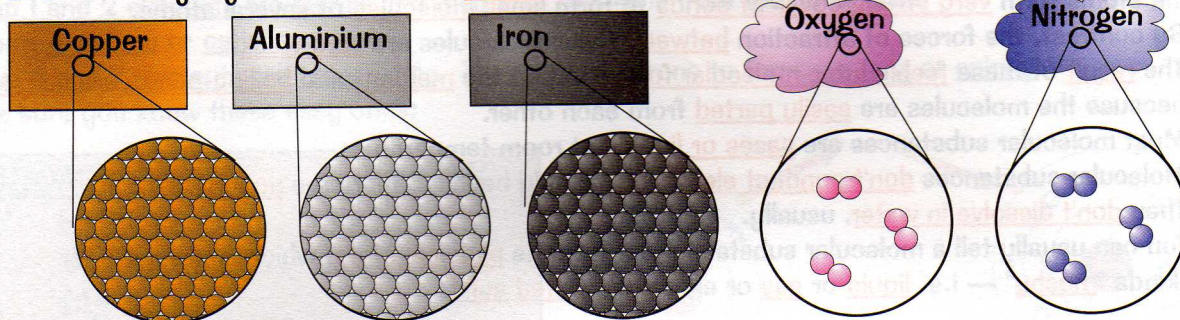


Elements, Compounds and Mixtures

You'd better be sure you know the subtle differences between these.

Elements consist of one type of atom only

Quite a lot of everyday substances are **elements**:



Mixtures are easily separated

1) **Air** is a **mixture** of gases.

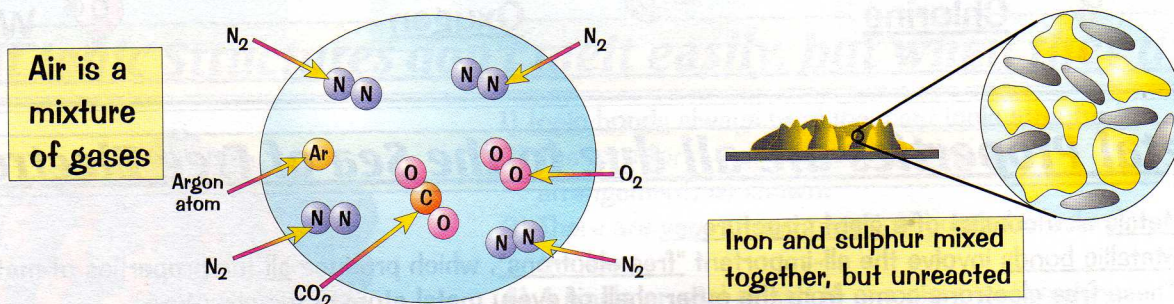
The oxygen, nitrogen, argon and carbon dioxide can all be separated out quite easily.

2) There is no chemical bond between the different parts of a mixture.

3) The properties of a mixture are just a mixture of the properties of the separate parts.

4) A mixture of iron powder and sulphur powder will show the properties of both iron and sulphur.

It will contain grey magnetic bits of iron and bright yellow bits of sulphur.



Compounds are chemically bonded

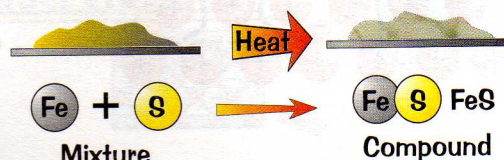
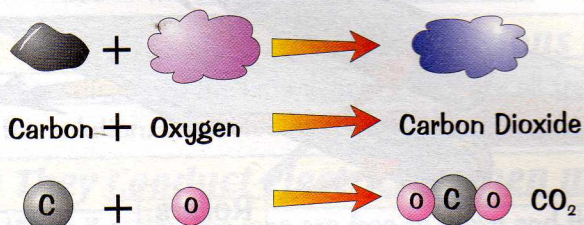
1) The particles in compounds are held together by strong forces called **chemical bonds**.

2) Carbon dioxide is a **compound** formed from a **chemical reaction** between carbon and oxygen.

3) It's **very difficult** to **separate** the two original elements out again.

4) The **properties** of a compound are **totally different** from the properties of the **original elements**.

5) If iron and sulphur react to form **iron sulphide**, the compound formed is a **grey solid lump**, and doesn't behave **anything like** either iron or sulphur.



Don't mix these up — it'll only compound your problems...

Elements, mixtures and compounds. To most people they sound like basically the same thing. Ha! Not to GCSE Examiners they don't, pal! You make mighty sure you remember their different names and the differences between them. Just more easy marks to be won or lost.