

# **What is Chemistry ?**

# Chemistry Intro

Chemistry: is the study of matter, its properties, and its changes or transformations

Matter: anything that has mass and takes up space

atom	C, N
element	<u>type</u> C, O <sub>2</sub> , S <sub>8</sub>
compound	CO <sub>2</sub> , NaCl
molecule	O <sub>2</sub> , P <sub>4</sub> , H <sub>2</sub> O

	ELEMENT	COMPOUND	MOLECULE
CO		✓	✓
F <sub>2</sub>	✓		✓
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>		✓	✓
Na	✓		

**All types of matter have physical and chemical properties.**

A physical property is a characteristic or description of a substance

### **'Senses'**

Colour

Odour

Taste

State of matter

Solubility

Lustre

Melting point, boiling point

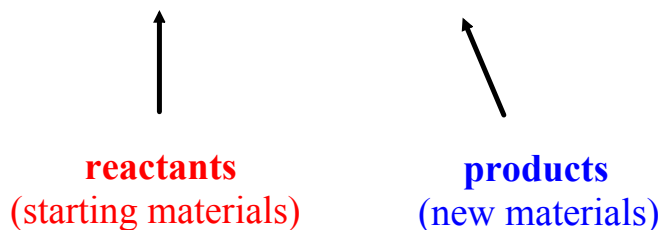
# Chemical Properties

A chemical property is a characteristic **behaviour**. This must occur when a substance changes to a new substance.

The actual change is a chemical change.



Ex. Iron + oxygen  $\Rightarrow$  Iron (III) oxide



## *Combustibility*

Substance will react with oxygen to produce carbon dioxide, water vapour and energy.

Ex. Burning of gasoline

Read p. 172-174

p. 175 #1, 2, 4, 5