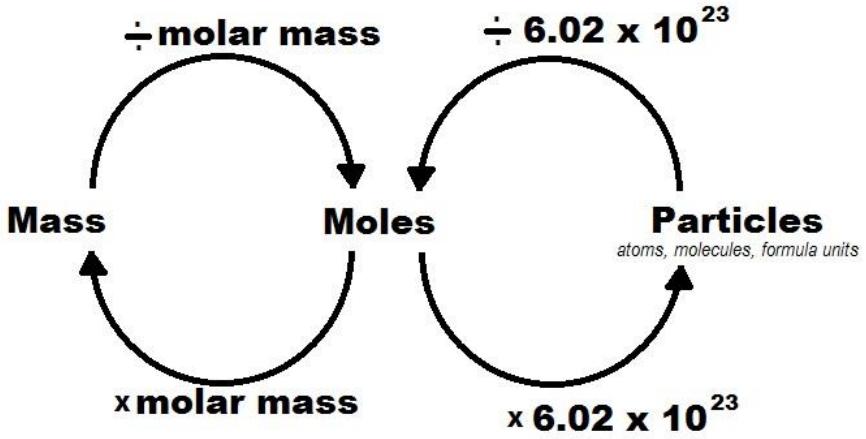
Chemistry Topic 3: Quantitative chemistry

1. Keywords	
Conservation of mass	No atoms are made or lost during a chemical reaction. The mass before the reaction must equal the mass after a reaction IN A CLOSED SYSTEM
Closed system	A container which no chemicals can escape. Eg a sealed bottle
Relative formula mass (Mr)	Sum of relative atomic masses from periodic table
Balanced equation	When the sum of the Mr on the left equals the sum of the Mr on the right
Uncertainty	The percentage of a result that might be wrong. Shown from differences between repeats
Limiting reactant	The reactant which runs out first

2. Moles (HT ONLY)	
Mole	The number of particles needed to make the mass equal the atomic mass
Avogadro constant	6.022×10^{23} particles in 1 mole



3a. Concentration		
$$C = \frac{mass}{V}$$		
C	Concentration	g/dm^3
$mass$	mass	g
V	volume	dm^3 (litres)

3b. Concentration (HT ONLY)		
$$C = \frac{\mathrm{m}}{V}$$		
C	Concentration	mol/dm^3
m	mole	mol
V	volume	dm^3 (litres)