

SCAN ME



Assessment = ★

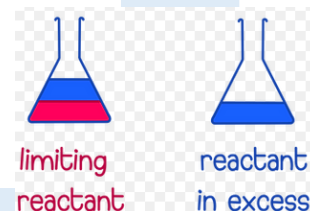
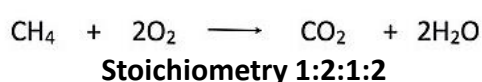
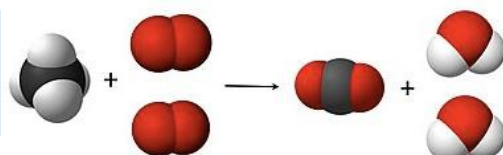
Final
assessment

Review of learning

Apply:
SC14 Quantitative
Analysis
SC15 Calculations
involving volumes of
gases.

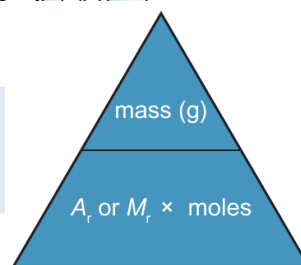
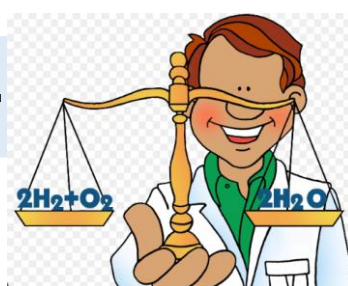
Revision

Retrieval, keyword
definitions and
equation practice.



Moles-2

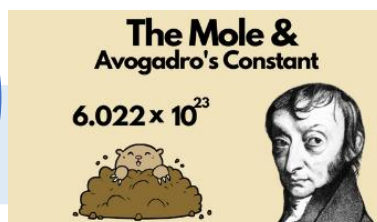
Higher tier – ..working
out balanced
equations from
masses.



A_r is the relative atomic mass
 M_r is the relative formula mass

Moles-1

Higher tier –
Avogadro constant,
moles, stoichiometry
and working out
balanced equations
from masses.



1 mg is 0.001 g and 1 l (1 litre) is the
same volume as 1 dm³

Store in a cool dry place.
Excerpt from the mineral water analysis
by Laborunion Prof. H&M & Co. GmbH,
Bad Ems dated April 01, 2004
Composition of the characteristic ingredients:
Typical values mg/litre:

Sodium	Na ⁺	13.2
Calcium	Ca ²⁺	29.1
Magnesium	Mg ²⁺	9.0
Chloride	Cl ⁻	31.1
Sulphate	SO ₄ ²⁻	42.7
Nitrate	NO ₃ ⁻	<0.5

The concentration of calcium ions is
29.1 mg/l or 0.0291 g dm⁻³.

A Mineral water contains dissolved ions.

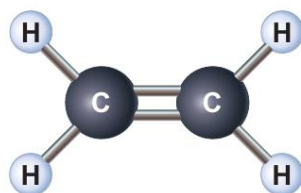
$$\text{concentration} = \frac{\text{mass of solute in g}}{\text{volume of solution in dm}^3}$$

CONSERVATION OF MASS

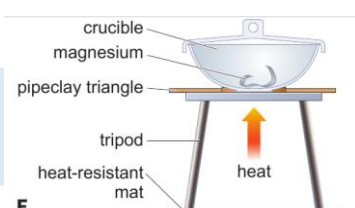
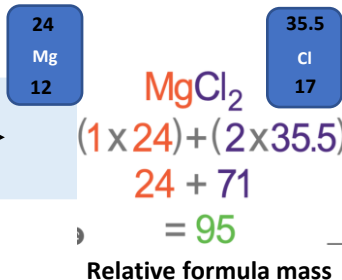


Conservation
of mass

Concentrations in
solution, conservation
of mass and reacting
mass calculations.



Ethene's molecular
formula is C₂H₄ but
the empirical
formula is CH₂



Masses and
Empirical
formulae

A comparison of
molecular formula and
empirical formula
and calculations of
empirical formula.

Retrieve:

C1 3.1 chemical reactions
C1 3.2 Word equations
C1 3.5 Conservation of
mass

Keywords

Molecular formula, empirical formula, relative formula mass, concentration, limiting reactant, stoichiometry