YEAR 12 CHEMISTRY LEARNING JOURNEY

Target Grade:

Year 13

End of year 12 exam result:

periodicity

Physical properties of period 3 elements

Mass spectrometry

Trends in properties

Required Practical 4

Organic analysis

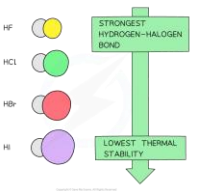
Group 7

Infrared spectroscopy

NMR

Required Practical 6

Uses of chlorine and chlorate (I)



Trends and properties

Group 2

Addition polymerisation

Structure and bonding

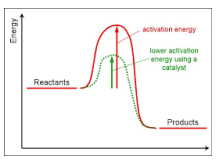
$wA + xB \rightleftharpoons yC + zD$

$K_c = \frac{[A]^w[B]^x}{[C]^y[D]^z}$

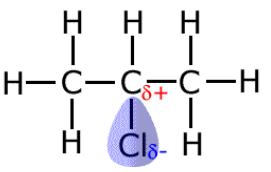
Alkenes

Redox reactions

Equilibria, kC & kP

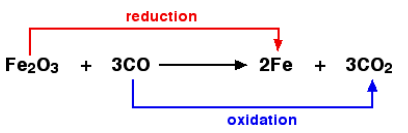


Addition reactions



Nucleophilic substitution

Ozone depletion



Linear exam result:

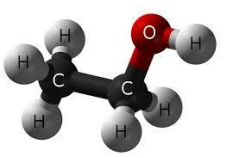
Alcohols

Halogenoalkanes

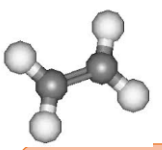
Oxidation

Required Practical 5

Alcohol production



Elimination



Free radical substitution

Isomerism

Reaction mechanisms

cracking

Introduction to organic chemistry and alkanes

Required Practical 2

Required Practical 3

Catalysts

Collision theory

Maxwell-Boltzmann distribution

calorimetry

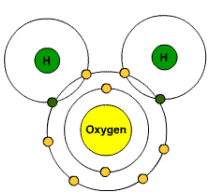
Kinetics

Energetics

Nomenclature

The mole and the Avogadro constant

Empirical and molecular formula



Enthalpy change

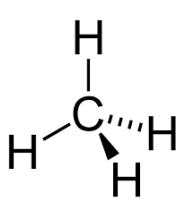
Hess's law

Amount of substance

Relative atomic mass and relative molecular mass

Covalent and dative bonding

Mass number &isotopes



The ideal gas equation

Bonding

Atomic structure

Year 12

Required Practical 1

Shapes of simple molecules

Ionic bonding

Metallic bonding

Electron configuration

Fundamental particles