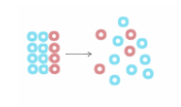


# A-LEVEL CHEMISTRY LEARNING JOURNEY

Reactions of Period 3 Elements and their Oxides



Thermodynamics

Required Practical 8

Required Practical 7

Rate Equations

**Year 13**



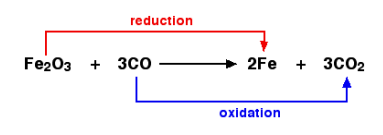
Group 2 – The Alkaline Earth Metals

Required Practical 4

Group 7 – The Halogens

17	35.453
<b>Cl</b>	
Chlorine	
[Ne] 3s <sup>2</sup> 3p <sup>5</sup>	
Halogens	

Redox Reactions

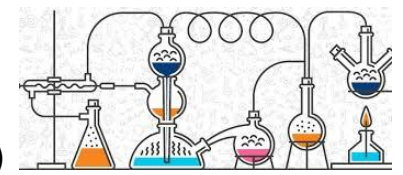


Amount of Substance

level 1	1s
level 2	2s 2p
level 3	3s 3p
level 4	4s 4p
level 5	5s 5p
level 6	6s 6p
level 7	7s 7p

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Atomic Structure



**EXAMS**

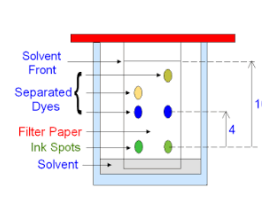
Electrode potentials and electrochemical cells

Required Practical 11

OH<sup>-</sup>  
Acids and Bases

Required Practical 12

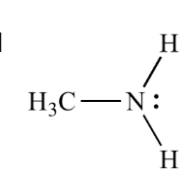
H<sup>+</sup>  
Chromatography



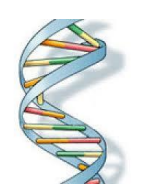
Transition metals & Reactions of inorganic aqueous ions

Required Practical 9

Organic Synthesis and Analysis

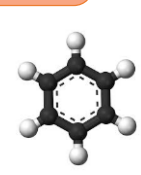


Amino Acids, Proteins and DNA



Required Practical 10

Carbonyl compounds – aldehydes & ketones, carboxylic acids, esters  
Acyl chlorides and acid anhydrides

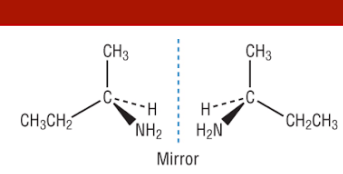


Amines

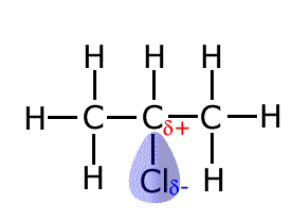
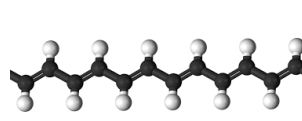
Polymers

Equilibria and K<sub>p</sub>

Optical Isomerism



Benzene

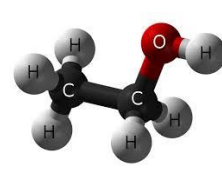


Required Practical 7

Rate Equations

Required Practical 5 & 6

Alcohols

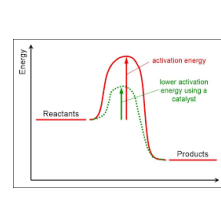


Halogenoalkanes



Organic Analysis

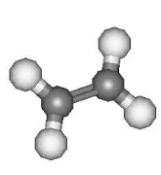
Required Practical 2



Kinetics

Required Practical 3

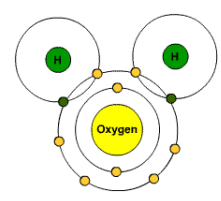
Alkenes



Introduction to Organic Chemistry and Alkanes

Energetics

Required Practical 1

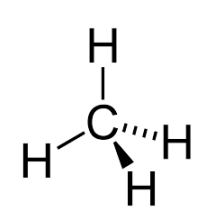
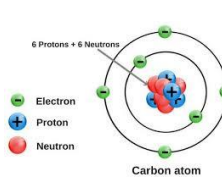


Bonding

Equilibria and K<sub>c</sub>

$$w\text{A} + x\text{B} \rightleftharpoons y\text{C} + z\text{D}$$

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



Periodicity



**Year 12**