The CHEMISTRY LEARNING JOURNEY

YEAR 11

- **C13: The Earth's Atmosphere**
  - Development of the atmosphere
  - Human impact on the composition of the atmosphere
  - Pollution/climate change
- Test
- **C14: Earth's Resources**
  - Finite & renewable
  - Water purification
  - Treating water
  - LCA
  - Metal extraction
- Test
- **C15: Using our Resources (Triple)**
  - ***Rusting***
  - ***Alloys***
  - ***Properties of polymers***
  - ***Haber process &***
  - ***Fertilisers***
- Test
- Revision
- MOCK PAPER 1
- Revision
- MOCK PAPER 2
- Exams

YEAR 10

- **C12: Chemical Analysis**
  - Formulations
  - Pure substances
  - Chromatography
  - Testing for gases
  - ***TRIPLE: Testing positive ions & negative ions***
- Test
- **C11: Polymers (Triple)**
  - ***Addition Polymerisation***
  - ***Condensation Polymerisation***
  - ***Natural polymers***
  - ***DNA***
- Test
- **C10: Organic Reactions (Triple)**
  - ***Reactions of alkenes***
  - ***Structure of alcohols, carboxylic acids & Esters***
  - ***Reactions & uses of alcohol***
- Test
- **C9: Crude Oil & Fuels**
  - Crude oil & alkanes
  - Fractional distillation
  - Combustion
  - Cracking
- Test
- **C8: Rates & Equilibrium**
  - Rates of reactions
  - Factors that affect rate
  - Reversible reactions
  - Equilibrium
- Test
- **C4: Chemical Calculations**
  - Chemical calculations
  - Balancing equations
  - Moles
  - ***TRIPLE: yield, atom economy, expressing conc, titrations, vol of gases***
- Test
- **C6: Electrolysis**
  - Recap ions
  - Half Equations
  - Electrolysis - molten
  - Electrolysis - solutions
  - Extraction of Aluminum
- Test
- **C7: Energy Changes**
  - Endothermic & exothermic reactions
  - Energy changes
  - ***TRIPLE: Fuel cells & batteries***
- Test
- Revision
- EOY Exam

YEAR 9

- **C5: Chemical Changes**
  - Oxidation
  - Reactivity series
  - Redox HT
  - Extraction of metals
  - Salts from insoluble bases
  - Making salts
  - Strong & Weak Acids HT
- Test
- **C3: Bonding, Structure & Bonding**
  - States of matter
  - Different types of bonding
  - Structures of carbon
  - Polymers
  - ***TRIPLE: Nanoparticles & application***
- Test
- **C2: Periodic Table**
  - Establishment of the periodic table
  - Properties of groups 1,7 & 0
  - ***TRIPLE: Transition metals***
- Test
- **C1: Atomic Structure**
  - Structure of the atom
  - Separating mixtures
  - History of the atom
  - Ions, atoms & isotopes
- Test
- Revision
- EOY Exam

YEAR 8

- **8C1: Reactions**
  - Formation of new substances
  - Conservation of mass
  - Thermal decomposition
  - Oxidation
  - Exo & Endo reactions
  - Catalysts
- Test
- **8C2: Periodic Table**
  - Development of the periodic table
  - Metals & Non-metals
  - Group 1
  - Group 7
  - Trends in physical properties across a period
- Test
- **8C3: Metals and Acid Reactions**
  - Reactions of metals
  - Displacement reactions
  - Reactivity series
- Test
- **8C4: The Earth**
  - Earth structure
  - Rock types
  - Rock Cycle
  - Finite resources
  - Man-made & natural materials
  - The cycle of materials
  - Environmental impact
- Test
- Revision
- EOY Exam

YEAR 7

- **7C4: Separating Techniques**
  - Pure & impure
  - Solutions
  - solubilities
  - Separating mixtures; filtering, evaporation, chromatography & distillation
- Test
- **7C3: Acids & Alkalis**
  - Acids & reactions
  - Indicators
  - pH scale
  - Neutralisation
  - Reactions involving acids & alkalis
- Test
- **7C2: Elements, Atoms & Compounds**
  - Elements and Atoms, Forming Compounds
  - Word equations
  - Symbols and formulae
- Test
- **7C1: Particles & their Behaviour**
  - Particle theory
  - States of matter
  - Diffusion
  - Gas pressure
- Test

welcome

To develop Knowledgeable, Skillful, Inquisitive Scientists