AAQ Pearson Applied Science Learning Journey

Next steps:
University
Apprenticeships
Careers

Science Investigation Skills

D2: Scientific evaluation
C3: Data presentation
C1: Experimental procedures & techniques
B2: Project planning
B1: Project scheduling
A2: Develop project proposal
A1: Literature Review
D3: Skills
D1: Report
C2: Collect, collate & analyse data
B3: Health, safety & ethics

Practical Scientific Procedures and Techniques

C2: Electrical circuits
D: Review personal development
C1: Cooling curves & specific heat capacity
B2: Plant growth
B1: Colorimetry
A3: Chromatography & melting point determination
A4: Evaluation
A1-A2: Standard solutions & Titrations

YEAR 13

Principles and Applications of Physics

Velocity-time graphs
Newton's 1st Law
Newton's 2nd Law
Newton's 3rd Law
Speed & Displacement-time graphs
EM Waves
EM waves in communication
Resistance
Specific Heat Capacity
Analogue & Digital signals
Diffraction gratings & emission spectra
Wave properties
Circuits
Optical fibres
Phase difference & superposition
Reflection & refraction
Stationary waves

Principles and Applications of Chemistry

Polymerisation
Combustion & Cracking
Organic reactions
Substitution reactions
Isomerism
Organic chemistry
Equilibrium
Rate equations
Volume & yield
Mass & molar mass
Period 3 reactions
Redox reaction
Oxidation number
Green Chemistry
Chemistry in industry
Equilibrium constant (K_c & K_p)
Enthalpy change
Rate of reaction
Stoichiometry
Period 3 properties
Polarity & Intermolecular forces
Bonding & Physical Properties
Molecular shape
Covalent Bonding
Ionic Bonding
Metallic Bonding
Atomic structure
Electronic structure
Ionisation energy

Principles and Applications of Biology

Cell transport
SA:V Ratio
Osmosis
Enzyme activity
Interrelationship of nervous and endocrine system
Plasma membrane
Enzyme structure
Homeostasis
Disturbance of homeostasis
Lipids
Biochemical testing
Nucleic acids
Synapses
Action Potentials
Endothelial tissue
Fast & Slow-twitch muscles
Specialised cells
Plant cells
Proteins
Carbohydrates
Water
Neurotransmitter imbalances
Neurones
Epithelial tissue
Muscle tissue
Prokaryotic cells & gram staining
Animal cells

YEAR 12