

Laboratory	CPSE Experiments	Aligned Curricula
Chemistry	The Law of Conservation of Mass	IB, GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Displacement Reactions Between Metals and Their Salts	IB, GCSE, AS, A Level, AP, MEB
Chemistry	The Law of Definite Proportions: The Empirical Formula of a Metal Oxide	IB, GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Bonding in Solids	IB, GCSE, AS, A Level, AP, MEB
Chemistry	Buffer Design	AS, A Level, AP
Chemistry	Acid-Base Titration with a pH meter: The Identification of an Unknown Acid Solution	IB, GCSE, AS, A Level, AP, MEB
Chemistry	Enthalpy Change of Solutions	IB, GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Rate Laws	IB, GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Redox Titration: Determination of H <sub>2</sub> O <sub>2</sub> Concentration	IB, GCSE, AS, A Level, AP, MEB
Chemistry	Equilibrium Constant: Iron (III) Thiocyanate Complex Ion	GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Chemical Equilibrium: Iron (III) Thiocyanate Complex Ion	GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Introduction to Atomic Models	GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	UV-Vis Spectrophotometer and Beer-Lambert Law	IB, AP
Chemistry	Identification of Cations	IB, GCSE, AS, A Level, AP
Chemistry	Identification of Anions	IB, GCSE, AS, A Level, AP
Chemistry	Copper Content of Brass	IB, GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Acid-Base Titration with Indicators: Acidity of Beverages	GCSE, AS, A Level, AP, MEB
Chemistry	Buffering Activity	AS, A Level, AP
Chemistry	Rate of Reaction: Mass Change Method	IB, GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Test for Functional Groups in Organic Compounds	AS, A Level, AP, NGSS
Chemistry	The Law of Definite Proportions: The Formula of a Hydrate	IB, GCSE, AS, A Level, AP, NGSS, MEB
Chemistry	Ion Responsible for the Wavelength of Maximum Absorption (UV-Vis concept, different from Beer-Lambert experiment)	IB, AS, A Level, AP, NGSS.
Junior	Junior Lab - Introduction to Atomic Models	GCSE, AS, A Level, AP, MEB, NGSS
Chemistry	Displacement Reactions Between Metals and Their Salts	IB, GCSE, AS, A Level, AP, MEB, NGSS
Chemistry	Identification of Cations	IB, GCSE, AS, A Level, AP
Chemistry	Identification of Anions	IB, GCSE, AS, A Level, AP
Chemistry	Boiling Point Elevation	MEB, A-Level, GCSE, IB, AP
Chemistry	Separating by Separatory Funnel	MEB, A-Level, GCSE, IB, AP
Chemistry	Separating by Extractions	MEB, A-Level, GCSE, IB, AP
Chemistry	Separating by Simple Distillation	MEB, A-Level, GCSE, IB, AP
Chemistry	Separating Mixtures	MEB, A-Level, GCSE, IB, AP
Chemistry	Solubility in solid-liquid solutions	MEB, A-Level, GCSE, IB, AP
Chemistry	Introduction to Organic Chemistry	MEB, A-Level, GCSE, IB, AP
Chemistry	Paper Chromatography	MEB, A-Level, GCSE, IB, AP
Chemistry	Ionic and Covalent Bonds	MEB, A-Level, GCSE, IB, AP
Chemistry	Acid-Base Experiment	MEB, A-Level, GCSE, IB, AP
Chemistry	Emission Spectrum of Hydrogen	MEB, A-Level, GCSE, IB, AP
Chemistry	Flame test for metals	MEB, A-Level, GCSE, IB, AP
Chemistry	Conductivity of ionic and covalent bonds	MEB, A-Level, GCSE, IB, AP
Biology	Active Transport	A Level, AS, NGSS
Biology	Bacterial Transformation	AP, NGSS
Biology	Cellular Respiration	Cambridge, A Level, AS, AP, NGSS, Cambridge Practical Booklet
Junior	Circulatory System	Cambridge, Pre-AP
Junior	Comparison of Plant and Animal Cells	Cambridge, Pre-AP, GCSE, IB, A Level, AS, NGSS

Biology	Decay of Milk	GCSE
Biology	Energy Flow in Ecosystem	AP, NGSS
Biology	Effect of pH on Amylase	GCSE, IB, A Level, AS, AP, Cambridge Practical Booklet
Biology	Enzyme Activity: Function of Catalase	GCSE, IB, A Level, AS, AP, Cambridge Practical Booklet
Junior	Excretory System	Cambridge, Pre-AP
Biology	Factors That Affect Mitosis	AP, NGSS
Junior	Human Reproduction System	Cambridge, Pre-AP, NGSS
Junior	Junior Lab - Life and Biogeochemical Cycles	Cambridge, Pre-AP, NGSS
Biology	Measuring Cell Size	Cambridge Practical Booklet
Biology	Meiosis and Crossing Over	AP, NGSS
Biology	Mitosis and Meiosis	IB, MEB
Biology	Passive Transport (Osmosis, Water Potential)	GCSE, IB, A Level, AS, AP, Cambridge Practical Booklet
Biology	Factors that Affect Photosynthesis I	Cambridge, GCSE, IB, A Level, AS, AP, NGSS, Cambridge Practical Booklet
Biology	Quadrat Sampling	GCSE, IB, A Level, AS, Cambridge Practical Booklet
Junior	Respiratory System in Humans	IB, A Level, Cambridge
Junior	Skeletal System	Pre-AP
Biology	Testing for carbohydrates, proteins and lipids	GCSE, IB, A Level, AS, NGSS
Biology	Transpiration in Plants	IB, A Level, AS, AP, Cambridge Practical Booklet
Biology	Asexual Plant Propagation: Stem Cutting	IB, A- Level, GCSE, AP, MEB
Junior	Junior Lab - Blood Typing	IB, GCSE, A-level, AP, NGSS, MEB
Medical Biochemistry	Kinetic Enzyme Activity Measurement	IB
Molecular Biology	Quantitative Protein Assay Using Biuret Reagent	IB, GCSE, MEB
Molecular Biology	Protein Isolation	IB, GCSE, A-level, AP, NGSS, MEB
Molecular Biology	Protein Denaturation and Vertical Electrophoresis	IB, GCSE, A-level, AP, NGSS, MEB
Molecular Biology	Protein Imaging with Coomassie Blue	IB, GCSE, A-level, AP, NGSS, MEB
Molecular Biology	Enzyme-Linked Immunosorbent Assay (ELISA)	IB, GCSE, A-level, AP, NGSS, MEB
Molecular Biology	Western Blot	IB, GCSE, A-level, AP, NGSS, MEB
Medical Biochemistry	Design of PCR Primers and Gradient PCR	IB, GCSE, A-level, AP, NGSS, MEB
Molecular Biology	Protein Determination with Bicinchoninic Acid Assay	IB, GCSE, A-level, AP, NGSS, MEB
Molecular Biology	DNA Isolation and Determination of Quantity and Purity	IB, GCSE, A-level, AP, NGSS, MEB
Biology	Animal Behavior	IB, AP, NGSS, MEB
Junior	Junior Lab - Let's Take a Closer Look at Microscope	MYP, Cambridge, NGSS, MEB
Medical Biochemistry	Introduction to Laboratory and Solution Preparation	IB
Medical Biochemistry	Lipids – Halogenation & Salkowski Test	IB
Medical Biochemistry	Qualitative Determination of Carbohydrates	IB
Medical Biochemistry	UV-Vis Spectrophotometer and Beer-Lambert Law	IB
Junior	Junior Lab – Using Dichotomous Keys to Identify Organisms (Microorganisms)	IB, GCSE, A-level, MEB
Junior	Junior Lab – Using Dichotomous Keys to Identify Organisms (Animals)	IB, GCSE, A-level, MEB
Junior	Junior Lab – Mitosis	IB, MEB
Junior	Junior Lab – Meiosis	IB, MEB
Junior	Junior Lab – Respiratory System in Humans	MYP, Cambridge, pre-AP
Junior	Junior Lab – Excretory System in Humans	GCSE, IB MYP, MEB
Junior	Junior – Plants and Photosynthesis	Cambridge Lower Secondary
Junior	Junior Lab – Using Dichotomous Keys to Identify Organisms (Plants)	IB, GCSE, A-level, MEB
Biology	Blood Cells	IB, GCSE, AP, A-Level

Mechanics	Newton's Laws of Motion	AP1,APM, IB, GCSE, NGSS, AS, MEB
Mechanics	Linear Motion	AP1, APM, IB, GCSE, AS, MEB
Mechanics	Projectile Motion	AP1, APM, IB, AS, MEB
Mechanics	Atwood Mechine	AP1, APM, IB, AS, MEB
Mechanics	Hooke's Law and Springs	APM, GCSE, NGSS, BTEC, AS, MEB
Mechanics	Work-Energy Theorem and Mechanical Enegy	AP1, APM, GCSE,NGSS, BTEC, AS, MEB
Mechanics	Friction Forces	AP1, IB, GCSE, AS, MEB
Mechanics	Collisions in One Dimension	AP1, APM, IB, NGSS, GCSE, BTEC, MEB
Mechanics	Ballistic Pendulum	MEB
Mechanics	Uniorm Circular Motion	AP1, APM, A Level, MEB
Mechanics	Rotation of Rigid Bodies	AP1, APM, NGSS, MEB
Mechanics	Angular Momentum	AP1, APM, MEB
Mechanics	Harmonic Motion in a Spring	AP1, A Level, GCSE, MEB
Mechanics	Simple and Damped Pendulum	IB, A, AP1, APM, NGSS, MEB
Mechanics	Measurement And Uncertainties	IB, GCSE, AS, MEB
Electromagnetism	Ohm's Law	APE, AP2,IB, GCSE, NGSS, BTEC, AS, MEB
Electromagnetism	RC Circuits	APE, AP2, A, BTEC, IB, A Level, MEB
Electromagnetism	Electrical Resistance	IB, GCSE, AS, APE,BTEC, MEB
Electromagnetism	Resistors in Series and Parallel	IB, GCSE, AS, APE,BTEC, MEB
Electromagnetism	Coulomb's Law	AS, A Level, AP2, APE, MEB
Electromagnetism	Magnetic Field Pattern	IGCSE, NGSS, MEB
Electromagnetism	Equipotential Lines and Electric Filed	APE, AP2, NGSS
Electromagnetism	Biot-Savart Law	APE, AP2, NGSS, A, MEB
Electromagnetism	Magnetic Force on a Wire	APE, AP2, A, MEB
Electromagnetism	Faraday's Law of Induction	APE, AP2, NGSS, BTEC, A, , GCSE, MEB
Electromagnetism	Electrostatics	AS, A Level, AP2, APE, IB, GCSE, MEB
Electromagnetism	Diodes	A Level
Optics And Waves	Snell's Law of Refraction	IB, AP2, GCSE, A, BTEC, MEB
Optics And Waves	Snells Law and Refraction Finding Critical Angle	IB, AP2, GCSE, A, BTEC, MEB
Optics And Waves	Snells Law of Refraction Measuring Refractive Index	IB, AP2, GCSE, A, BTEC, MEB
Optics And Waves	Lenses and Images	AP2, GCSE, MEB
Optics And Waves	Lenses and Images: Convex Lenses	AP2, GCSE, MEB
Optics And Waves	Lenses and Images: Concave Lenses	AP2, GCSE, MEB
Optics And Waves	Young's Double Slit Interference	IB, AP2, AS, NGSS
Optics And Waves	Kundt's Pipe	IB, GCSE, NGSS, AS
Optics And Waves	Formation of Umbra Penumbra (Junior)	GCSE, NGSS, BTEC
Thermodynamics	Specific Heat of Solids and Liquids	IB, GCSE, NGSS, BTEC, A
Thermodynamics	Thermal Expansion of Metals	AP2, A, GCSE
Thermodynamics	Heat Exchange and Thermal Equilibrium (Junior)	NGSS, BTEC, A, GCSE
Thermodynamics	Ideal Gas Laws	NGSS, A, GCSE
Modern Physics	Electron Charge to Mass Ratio	IB, A, NGSS, MEB
Modern Physics	Millikan Oil Drop Experiment	AP2, APEM, MEB
Modern Physics	Penetration Power of Radioactive Radiation	IB, A, NGSS, GCSE, MEB
Modern Physics	Photoelectric Effect	AP2, NGSS, A, MEB
Modern Physics	The Hydrogen Emission Spectrum	IB, AP2, AS, MEB