Required practical in science exams

Biology paper 1 • Using a light microscope and calculating magnification • Investigating osmosis in plant tissues at different concentrations • Food tests for carbohydrates, lipids, proteins and sugars • Investigating the effect of pH on the enzyme amylase • Investigating the effect of light intensity on the rate of photosynthesis **Single science** • Investigating the effects of antiseptics or antibiotics on bacteria using zones of inhibition	**Chemistry paper 1** • Preparing a soluble salt from an insoluble oxide or carbonate • Aqueous electrolysis • Investigate variables that effect temperature changes e.g acid plus metal, carbonate, alkalis. **Single science** • Determination of reacting volume or concentration between an acid and an alkali using titration	**Physics paper 1** • Determining the specific heat capacity of a solid or liquid • Using circuit diagrams to test for factors effecting resistance in circuits • IV characteristic for the filament lamp, diode and fixed resistor • Identifying density of regular and irregular solids and liquids **Single science** • Investigate the effectiveness of different materials as thermal insulators
Biology paper 2 • Plan and carry out an investigation into human reaction time. • Measure population size in a habitat using sampling techniques- quadrats and transect lines • **Single science** • Investigate the effect of light or gravity on newly germinated seedlings • Investigate the effect of temperature on the rate of decay for fresh milk by measuring pH change	**Chemistry paper 2** • Investigate rate of reaction measuring volume of gas, mass lost, colour change or turbidity • Chromatography • Analysis of water using pH testing, dissolved solid testing and distillation • **Single science** • Using chemical analysis to identify ions in a compound – flame tests, sodium hydroxide tests, sulphate tests, halide tests	**Physics paper 2** • Investigating the effect of force and mass on acceleration (Newton's 2nd law) • Using the ripple tank to measure frequency, wavelength and wave speed • Investigating how the infra-red absorbed or emitted depends on the surface of the object • Investigating the relationship between force and extension of a spring **Single science** • Investigating reflection