Pearson Edexcel GCSE Science - Core Practical Videos - ver. 4.0

This document has the up to date links for the core practical videos available for GCSE Combined Science, GCSE Biology, GCSE Chemistry and GCSE Physics. Links to each video will become "live" as the videos are published. Keep an eye on the quals news page to see when new videos can be accessed.

**GCSE Combined Science (Biology) | GCSE Biology**

- Investigating biological samples with a microscope
- Investigate the effect of pH on enzyme activity
- Investigate osmosis in potatoes
- Investigate the effect of light intensity on the rate of photosynthesis
- Investigate the rate of respiration in living organisms
- Investigate the relationship between organisms and their environment

**Additional practicals needed for GCSE Biology**

- Investigate the use of chemical reagents to identify starch, reducing sugars, proteins and fats
- Investigate the effects of antiseptics, antibiotics or plant extracts on microbial cultures

**GCSE Combined Science (Chemistry) | GCSE Chemistry**

- Investigate the composition of inks by simple distillation and chromatography
- Investigate the change in pH of a fixed volume of HCl on the addition of calcium hydroxide
- Preparation of pure, dry hydrated copper sulfate crystals
- Investigate the electrolysis of copper sulfate solution with inert (graphite) and copper electrodes

**Additional practicals needed for GCSE Chemistry**

- Investigating the rate of a reaction by a) measuring the production of a gas and b) by observing a colour change
- Acid alkali titration using burette, pipette and a suitable indicator
- Identify the ions in unknown salts using the tests set out in the specification
- Investigate the temperature rise of a known mass of water by some common alcohols

**GCSE Combined Science (Physics) | GCSE Physics**

- Investigate the relationship between force mass and acceleration with trolleys
- Investigate the suitability of equipment to measure the speed frequency and wavelength of a wave in a solid and a fluid.
- Investigate the densities of solids and liquids
- Investigate the refraction in rectangular glass blocks
- Investigate the extension and work done when applying forces to a spring

**Use circuits to a) investigate the relationship between potential difference, current and resistance for a resistance in a filament lamp and b) test series and parallel circuits using resistors and filament lamps**

**Investigate the properties of water by determining the specific heat capacity of water and obtaining a temperature time graph for melting ice**

**Additional practical needed for GCSE Physics**

- Investigate how the nature of a surface affects the amount of thermal energy radiated or absorbed.