

# AS and A-level Biology practicals: Equipment set up

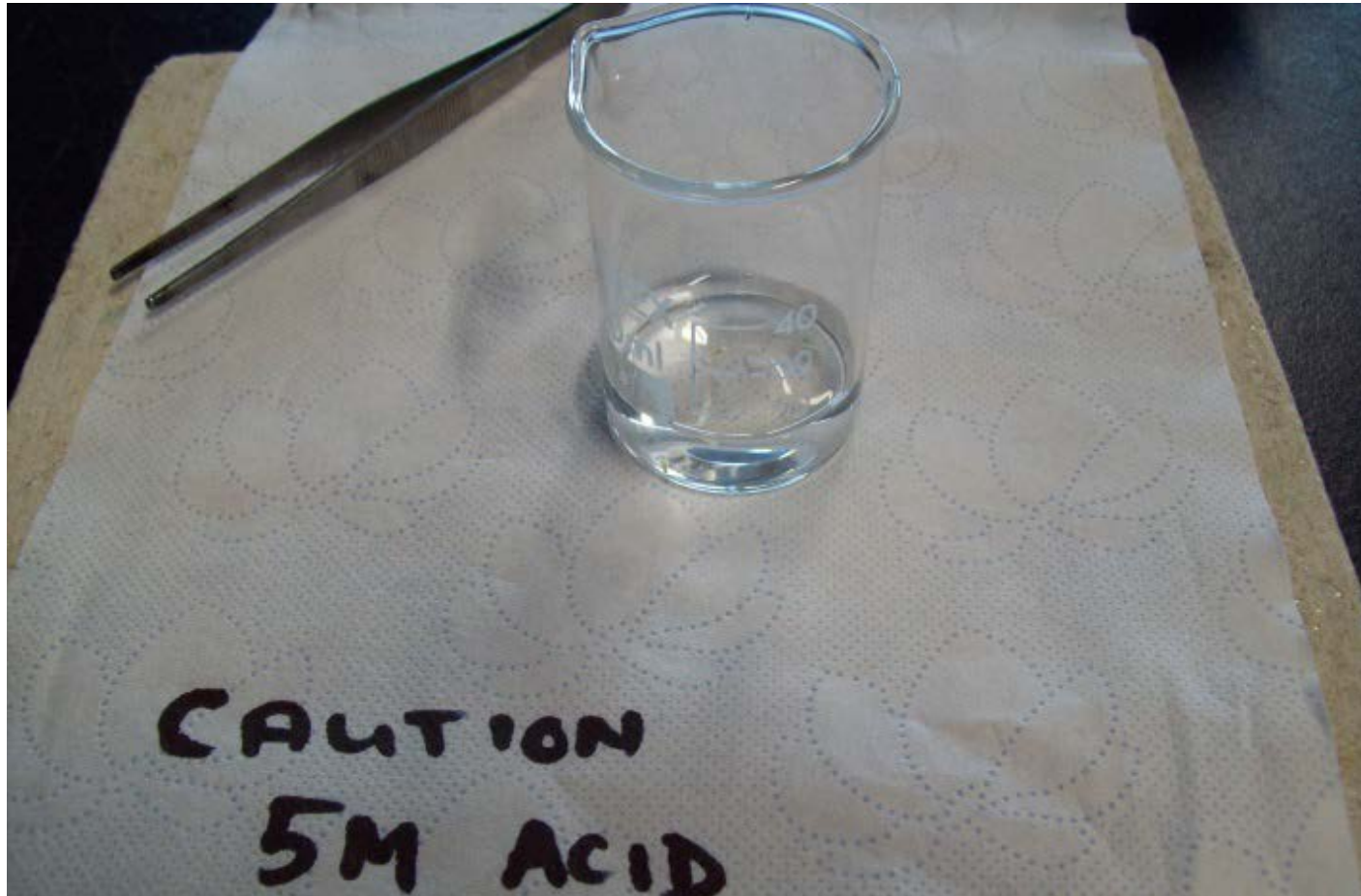
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Practical 2: Preparation of stained squashes of cells from plant root tips; set-up and use of an optical microscope to identify the stages of mitosis in these stained squashes and calculation of a mitotic index

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# Root tips in acid

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- To make the slide place a small piece of root tip in 5M acid.
- Work on a bench mat with paper towel to minimise and spillage.
- Caution 5M acid is corrosive and must be handled with care. Use gloves and forceps to handle the root.

# Preparing the slide

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- Work on the paper towel. Rinse the root tip in water on a watch glass and then put the root on the microscope slide.
- Cut off the root tip for staining. Discard other root material.
- Add the stain and macerate the root tip with a mounted needle.
- Add a coverslip and press the slide gently between two sheets of paper to flatten the root. Do not rub the slide.
- Observe the slide under the microscope.