

AS and A-level Biology practicals: Equipment set up

Practical 4: Investigation into the effect of a named variable on the permeability of cell-surface membranes

Equipment



Equipment

- Collect the apparatus.
- Make sure the scalpel is sharp and there is a large chopping board available as sometimes the beetroot is hard to get a cork borer into.
- A small mallet may be useful or the cork borer can be pressed against the chopping board.
- The tile can be used to cut the discs with the scalpel.

Stock beetroot extract

Beetroot discs in ethanol.

The discs should be mixed well over the 10 minute period.



Dye colour

The extract should be a deep red colour.



Calibration curve



Calibration curve

The colour standards can be measured in a colorimeter (absorbance at 520nm) or used for comparison with the samples obtained in the investigation.

Typical student results

