

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

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Practical 9: Investigation into the effect of a named variable on the rate of respiration of cultures of single-celled organisms

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# Preparation of yeast suspension

- Weigh out yeast and add to a warm suspension of glucose in water.
- The yeast should be fresh stock to be active enough to give good results.



# Actively growing yeast

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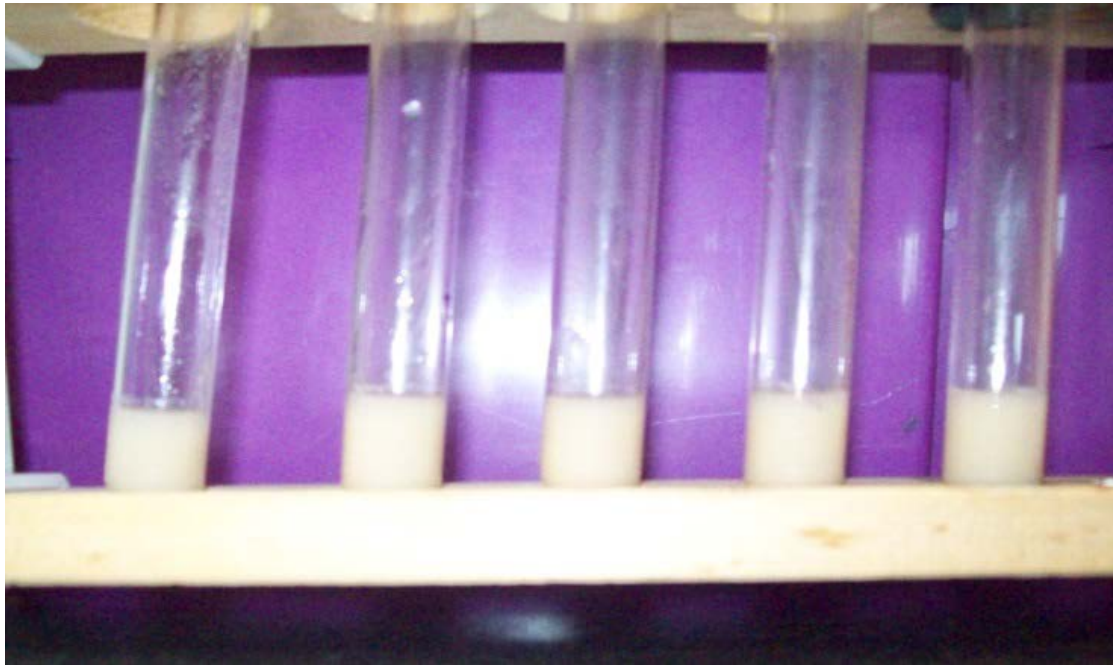
The yeast should be actively fermenting before the start of the experiment.



# Yeast is added to the test tubes

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The fermenting mixture should be mixed or shaken well before adding to the test tubes.



# Set up equipment to start the investigation



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- Get everything set up to start the investigation and have a supply of hot water available to keep the water bath temperature constant.
- Start with the beaker no more than half full of water to allow for the beaker to be topped up during the experiment.

# Timing the yeast/methylene blue

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- The yeast should decolourise within 5 -10 minutes.
- The concentration of methylene blue can be adjusted to give a colour change within this time.



# Colour changes during experiment

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