**Fermentation to form bioethanol**

**Many possibilities**

**A**: Just ferment a carbohydrate to study fermentation

Chop a ripe pear or apple or other fruit into small pieces.

Add the pieces to a flask.

Cover in water.

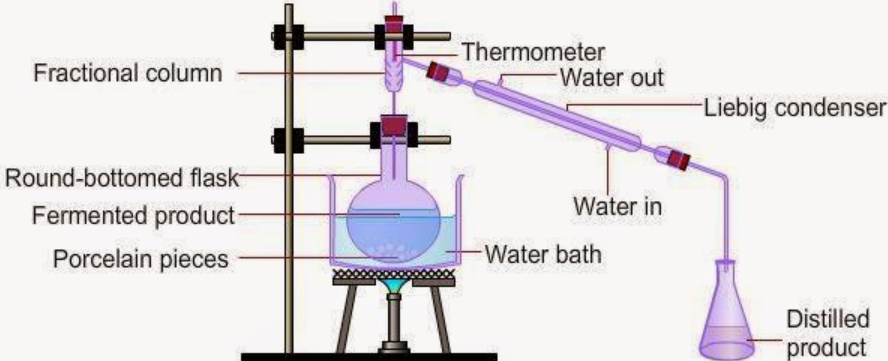
Add a spatula of dried yeast.

Put a single holed stopper in flask and hose leading into a beaker of water. (This is to direct CO2 evolved into the water as evidence of gas evolution.)

A laboratory equipment on a counter

Description automatically generatedSit flask on window sill or in water bath set on 35 0C. See diagram.

**B**: distil the liquid to demonstrate distillation and to obtain a sample of ethanol.



C: Make this an investigation

A bag of food in a container

Description automatically generatedCompare the rate of fermentation of different sugars eg same procedure but try sucrose, maltose, lactose, paper and cellulase etc

Can be done in a bag – see below

D: Try varying the temperature, concentrations etc

Can can the rate of bubbling to compare reaction rates.

