

Instruments:

- test tube
- 2 soft rubber stoppers
- 2 needles with dull points
- 2ml disposable syringe
- 20ml syringe with rubber seal
- 10ml disposable syringe

Chemicals:

- Vaseline
- active charcoal

Experiment:

- Remove the plunger of a 10ml disposable syringe, fill the tube with active charcoal, and plug the syringe shut with a soft rubber stopper.
- Press two dull needles through the second soft rubber stopper and use the stopper to seal the test tube. Connect the remaining syringes to the needles.
- The 2ml disposable syringe can be used to drip liquids into the test tube. The 20ml syringe with rubber stopper can catch any gases which result. For this reason, the inside of the 20 ml syringe must be coated with a little Vaseline to tightly seal it and make the plunger glide easily. Any excessive pressure caused in the test tube must also be able to be countered by raising the plunger by hand.
- When the 20ml syringe is full, it must be replaced by another, empty syringe or the active charcoal syringe. The latter is especially important for reactions producing toxic gases.

