



43. Test the gas

Time

1 h.

Curriculum links

Test for carbon dioxide.

Group size

2– 4.

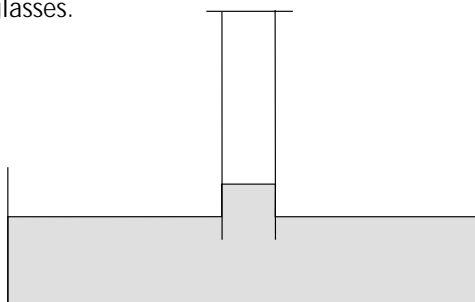
Materials and equipment

Materials per group

- ▼ gas jar full of carbon dioxide – set up as below
- ▼ fresh lime water.

Equipment per group

- ▼ various lengths of tubing
- ▼ plastic syringes
- ▼ items from the junk list (pXX)
- ▼ plastic bowl
- ▼ safety glasses.



Safety

Eye protection must be worn.

Risk assessment

A risk assessment must be carried out for this activity.

Commentary

There are many approaches to this problem, some more ingenious than others. The essential idea is to construct something that will go under the water and collect the gas. During trialling students designed containers filled with water, which when under the gas jar could be emptied and the gas collected. Syringes connected to rubber tubes were banned! A time element can be introduced to focus the activity.

Extension

The experiment can be modified by varying the gas in the gas jar.



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- ▼ Design a piece of apparatus to allow you to obtain a sample of the gas without removing the gas jar from the water and demonstrate that the gas is carbon dioxide.