

How to write a method...just think of CIDER!

Control variables

Independent variable

Dependent variable

Equipment

Repeats



Chemistry Practical 5 | Rate of reaction

How does the concentration of an acid affect the rate of reaction?

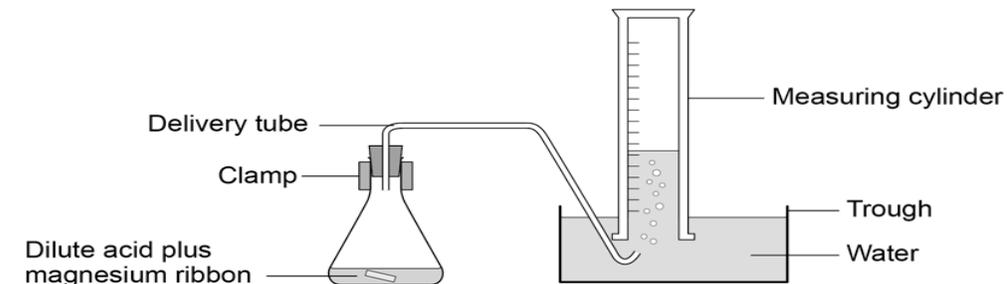
Activity 1 – by measuring the volume of gas produced
table:

Method

1. Measure 50 cm³ of 1.0 mol/dm³ hydrochloric acid using one of the measuring cylinders. Pour the acid into the 100 cm³ conical flask.
 2. Fit the bung and delivery tube to the top of the flask.
 3. Half fill the trough or bowl with water.
 4. Fill the other measuring cylinder with water. Make sure it stays filled with water when you invert it into the water trough and that the delivery tube is positioned correctly.
 5. Add a single 3 cm strip of magnesium ribbon to the flask, put the bung back into the flask as quickly as you can, and start the stopclock.
 6. Record the volume of hydrogen gas given off at suitable intervals (eg 10 seconds) in a table
- Continue timing until the volume of gas does not change.
7. Repeat steps **1–6** using 1.5 mol/dm³ hydrochloric acid.

Can you find the **cider**?

1. Control
2. Independent
3. Dependent
4. Equipment
5. Repeats



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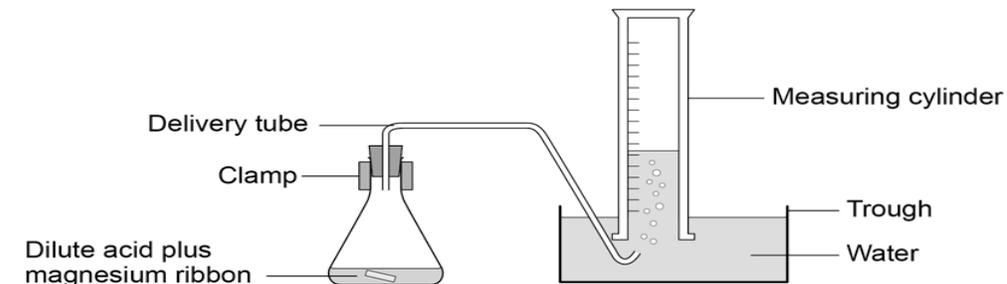
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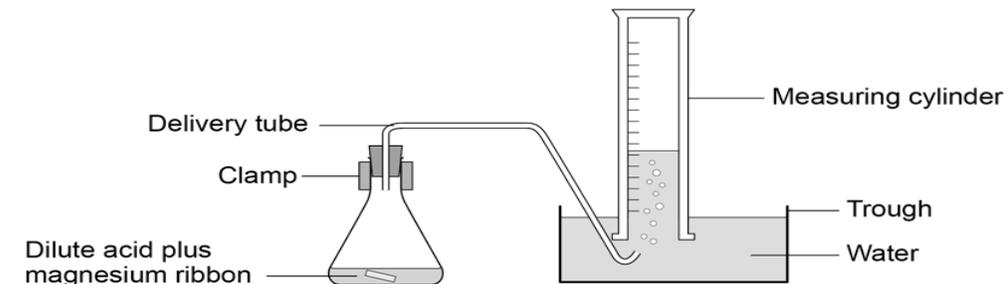
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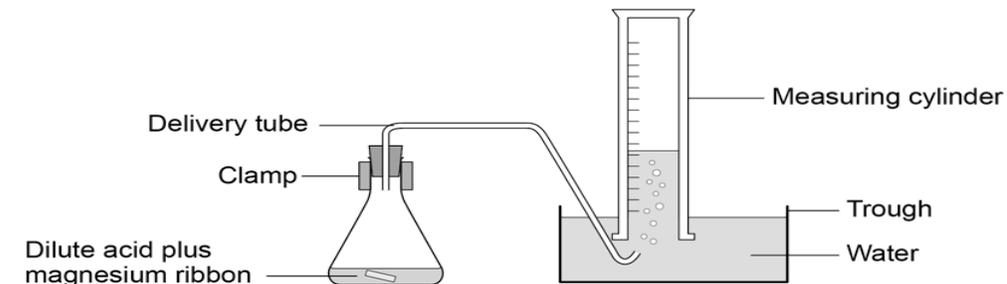
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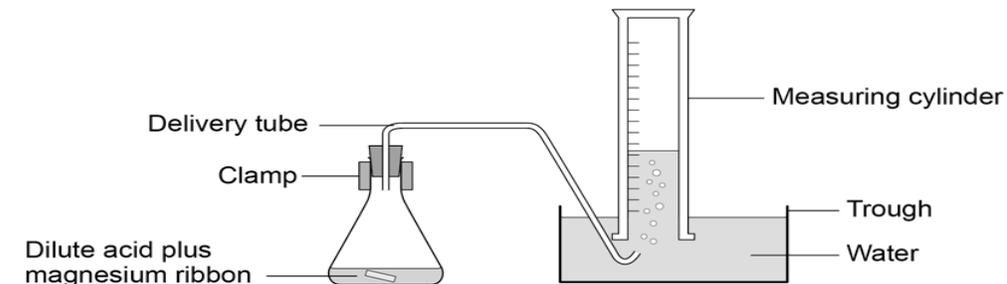
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Can you find the cider?

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Chemistry Practical 6 | Rate of reaction

How does the concentration of an acid affect the rate of reaction?

Activity 1 – by measuring the volume of gas produced
table:

Method

1. Measure 50 cm³ of 1.0 mol/dm³ hydrochloric acid using one of the measuring cylinders. Pour the acid into the 100 cm³ conical flask.
2. Fit the bung and delivery tube to the top of the flask.
3. Half fill the trough or bowl with water.
4. Fill the other measuring cylinder with water. Make sure it stays filled with water when you invert it into the water trough and that the delivery tube is positioned correctly.
5. Add a single 3 cm strip of magnesium ribbon to the flask, put the bung back into the flask as quickly as you can, and start the stopclock.
6. Record the volume of hydrogen gas given off at suitable intervals (eg 10 seconds) in a table

Continue timing until the volume of gas does not change.

7. Repeat steps 1–6 using 1.5 mol/dm³ hydrochloric acid.

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