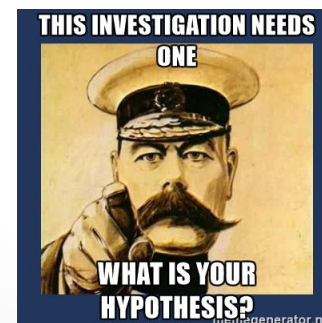


Investigation Reaction Rates of Carbon Dioxide Production

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Year 8 Chemical Sciences

Hypothesis

Aim: How does the concentration of hydrochloric acid affect the rate of reaction when producing carbon dioxide from marble chips?



Variables & Fair Test

- Variables
 - Independent
 - Dependent
 - Controlled
- Fair test
 - Change only one factor at a time while keeping all other conditions the same
 - What is it in this investigation?

Materials

- SAFETY GLASSES
- FOUR (4) test tubes
- FOUR (4) marble chips
 - Are there any issues with this method for a FAIR test?
- Hydrochloric acid
 - FOUR concentrations- 10 drops each test tube
 - Are there any issues with this method for a FAIR test?
- Timer

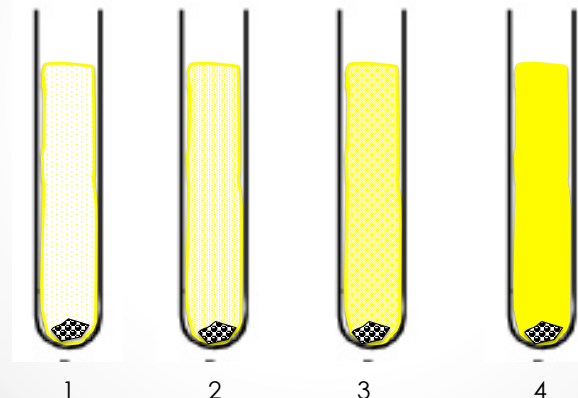
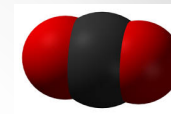


Who is doing what?

Decide

1. Collect equipment, mat and test tube rack
2. Marble chip in each test tube
3. Add acid to each test tube
4. Read instructions and write down observations

Method



Results Table

Test tube	Concentration of acid (mol/L)	Time taken to dissolve (seconds)
1		
2		
3		
4		

Graph Results

- Label axes
 - IV
 - DV
- Title
- Scales
 - Use most of the space for your graph
- Plot points
- Line of best fit
- What is the trend?

