


<b>N</b>	<b>109 The Scientific Method</b>	
	<b>Objectives</b> <ol style="list-style-type: none"> <li>1. Define the scientific method</li> <li>2. Identify the steps of the scientific method</li> <li>3. Describe the steps of the scientific method</li> <li>4. Distinguish between independent and dependent variables</li> <li>5. Distinguish between observation and conclusion</li> </ol>	

### 109.1 Defining The Scientific Method

A student observed a reaction between sulfuric acid and iron which produced a gas. She wondered what can increase the rate at which the gas is being produced.

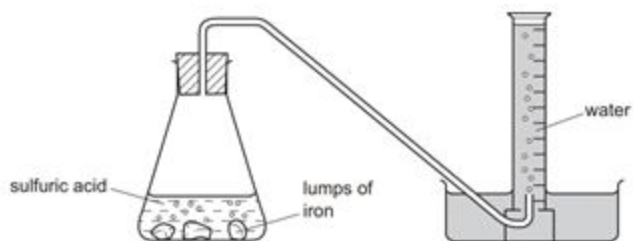
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### 109.2 Steps of the Scientific Method

#### STEP 1. Question

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#### STEP 2. Hypothesis

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#### STEP 3. Experiment

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#### STEP 4. Data

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	Time in s	0	20	40	60	80	100	120
1.0 M Acid	Total volume of gas collected in cm <sup>3</sup>	0	6	11	15	18	20	21
2.0 M Acid	Total volume of gas collected in cm <sup>3</sup>	0	12	22	30	37	43	48

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#### STEP 5. Analysis

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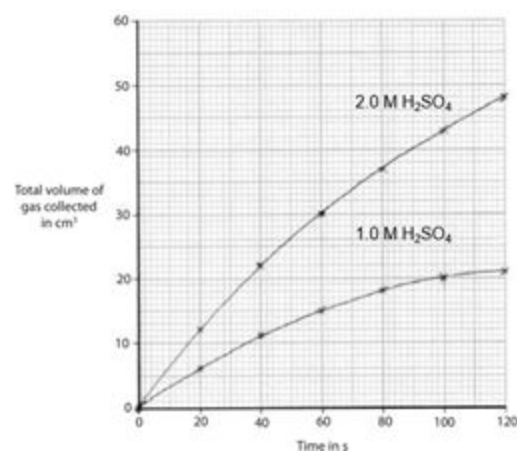
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#### STEP 6. Conclusion

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#### 109.5 Observation vs. Conclusion

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