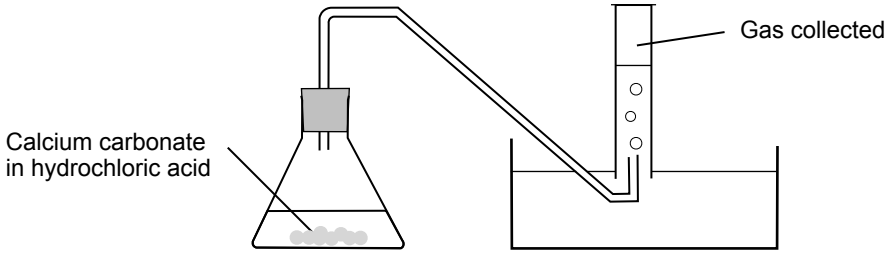
01 A student investigated the rate of reaction between calcium carbonate and hydrochloric acid. The diagram shows the apparatus used.



The equation for the reaction is given:

$$CaCO_3 + HCl \longrightarrow CaCl_2 + H_2O + CO_2$$

01.1 Balance the equation. **1 mark**

01.2 The student tested five different concentrations of hydrochloric acid. The student measured the volume of gas produced per minute.

Give one control variable for this investigation. **1 mark**

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01.3 Describe and explain the the results the student would expect for this investigation. **3 marks**

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01.4 Give one different way the student could have measured the rate of of reaction in this investigation. **1 mark**

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- End of question -

Total 6 marks