**IGCSE Chemistry coursework: Investigating carbonates**

**Skills assessed:**

**C2 Observing, measuring and recording**

**C3 Interpreting and evaluating experimental observations and data**

**C4 Planning, carrying out and evaluating investigations and suggesting possible improvements**

Carbonates are compounds which contain the carbonate ion (CO32-), for example calcium carbonate. All carbonates (except sodium and potassium carbonate) decompose on heating to form the oxide and carbon dioxide.

e.g. CaCO3 → CaO +CO2

Carbon dioxide is also formed when acids are added to carbonates.

e.g. CaCO3 + 2HCl → CaCl2 +CO2 +H2O

Carbon dioxide will turn limewater milky.

In this investigation you are going to investigate either:

**The effect of heating carbonates on carbon dioxide production**

**OR**

**The effect of adding acid to carbonates on carbon dioxide production**

For each option:

1. Write down the possible independent variables
2. Write down how you could measure carbon dioxide production

Now choose one independent variable and one dependant variable and when these are approved by your teacher plan the investigation

After the plan is approved carry out the investigation.

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