

Chemistry rates of reaction

Student checklist

Plan

- Aim of the experiment
- List of equipment
- Labelled diagram
- Method
- Fair test
- Detailed particle theory with quantitative prediction
- Balanced symbol equation
- Range includes minimum of 5 values and repeats
- Full details of pilot study with **all** results, especially things which did not work and therefore helped you to plan the experiment
- References to secondary sources
- **All** variables that affect the rate clearly identified and discussed before choosing the one to investigate
- The need to control variables not being investigated stated clearly in detail

Results

- A clear table of results with units and headings correct
- Clear evidence that variables not being investigated are being monitored or controlled
- Any clearly anomalous results repeated in addition to normal repeats for averaging

Analysis

- A good rate graph with **correct** scaling and labelling of axes and points drawn correctly
- A clear indication of what the graph shows. An explanation of why results were obtained, in terms of particle theory
- A clear indication, using actual results, of whether the prediction was accurate or not

Evaluation

- Identify anomalies on the graph, or state that there are no anomalies
- Comment on how close results are to line of best fit
- Comment on how close repeat readings are and if you decided to repeat anomalous readings
- Reasons why anomalous or non-perfect results were obtained
- Comment on your procedure – How good was it and how could it be improved? Describe in detail further work that you would carry out to provide additional evidence for the investigation