

## Aspects

I. Research Question	II. Experimental Design	III. Data & Processing	IV. Graphs & Patterns	V. Analysis & Conclusion	VI. Evaluation & Improvements
<p>a. Is a clearly stated question that can be answered with relevant data.</p> <p>b. States the independent, dependent, and controlled variables.</p> <p>c. Includes a hypothesis in both graph and written form.</p>	<p>a. Communicates a method of collecting data that allows for another scientist to recreate the experiment.</p> <p>b. Allows for the collection of high-quality, sufficient data to answer the research question.</p>	<p>a. Record appropriate qualitative data.</p> <p>b. Table headings state measurement, correct units, and appropriate, estimated uncertainties with explanation.</p> <p>c. Uncertainties are given to one significant figure only and the data is consistent with this uncertainty.</p> <p>d. All calculated data columns display the formula used for calculation.</p>	<p>a. All axes labeled with measurement and units.</p> <p>b. Data points are plotted accurately with error bars.</p> <p>c. Best-fit line is drawn and stated mathematically near the graph.</p> <p><b>d. Separate graph with best-fit, max and min lines</b></p>	<p>a. References the pattern in data as evidence to draw a conclusion about the relationship between the measured variables.</p> <p>b. Has the pattern found in the data expressed mathematically <b>with uncertainties</b>.</p> <p>c. Comments on each aspect of the mathematical expression.</p> <p><b>d. Prediction optional.</b></p> <p>e. Explains an appropriate level of confidence of <b>conclusion</b>.</p> <p><b>f. Calculated physical quantities are compared with referenced accepted values, where appropriate.</b></p>	<p><b>a. Comments on the overall 'quality' of the procedure used and data collected, using evidence from the processed data.</b></p> <p><b>b. Significant weaknesses and limitations in the process, equipment used and management of time are identified and evaluated for causing any systematic or random uncertainty.</b></p> <p><b>c. Identified weaknesses and limitations are addressed. Specifically including exact and realistic improvements or reduce uncertainties or improve confidence.</b></p>