Investigation Marking Key

Title	Marks
• Full sentence • Accurately describes what the investigation is about	/ 1
Aim	**Marks**
• Clear and concise • Explains The purpose of the investigation	/ 1
Variables	**Marks**
Independent Variable: • Stated correctly • Values are stated	/ 2
Dependent Variable: • Stated correctly • Units for measuring are stated	/ 2
Control Variables: • 3 x valid controls • States HOW each of these variables will be controlled	/ 6
Hypothesis	**Marks**
• Uses correct format • Clear link between independent and dependent variable	/ 2
Safety Risks & Controlls	**Marks**
• Identifies safety risks associated with the experiment • Suggests ways to minimise the risks	/ 4
Materials	**Marks**
• Comprehensive list of all materials used in the investigation • Written in bullet point format	/ 2
Diagram	**Marks**

• Diagram, clearly shows:
  • Equipment correctly set up
  • Correct labels
	/ 2

Method	**Marks**
• Written in numbered steps • Third person, past tense • Steps are concise, easy to follow and accurate • The method clearly changes the independent variable • The method clearly measures the dependent variable • The method controls all other variables	/ 5

Results	Marks
• The table has a title that includes both the independent and dependent variable • The table has the independent variable in the first column and the dependent variable in the other columns • Headings are informative • Headings include units • The table includes averages	/ 5

Graph	Marks
• Title that includes the independent and dependent variables • Independent variable is on the X-axis & Dependent variable is on the Y-axis • Label and units on axis • Scale increases in even increments • Correct graph type (continuous data = line graph; discrete data = column graph) • Data plotted correctly	/ 6

Discussion	Marks
• The trend between the variables has been described • A scientific reason for the results is explained • Any outliers in the data are recognised and accounted for	/ 4

Evaluation	Marks
• The accuracy of the data was specifically discussed by considering whether the measuring instruments gave the correct reading • The validity of the investigation was discussed by considering whether the variables were adequately controlled, and the only factor affecting the results was the independent variable. • The reliability of the data was discussed by considering the range of results and any anomalies.	/ 6

Conclusion	Marks
• The conclusion summarises the trend • The conclusions states whether the trend supports the hypothesis or not	/ 2

Report Format	Marks
• The report is written in an appropriate manner with formal language • The report contains few spelling or grammatical errors	/ 2

Total	Marks
	/ 52

Glossary:

Term	Definition
Accuracy	the extent to which the data reflect the actual value. The accuracy of data is related to the equipment used to measure it.
Independent Variable	the factor that is changed in an investigation
Dependent Variable	the factor that is being determine (or measured) in an investigation
Controlled Variables	the factors that are being kept the same in an investigation
Reliability	the consistency of the results/ how close the results are to each other. Reliable data is obtained when the same method is followed each trial.
Validity	the extent to which the results can be trusted. A valid method is one that controls variables well, changes the independent variable sufficiently and measures the dependent variable.
Variable	any factor that may alter the results