Investigation template

Student name: _____

Group members: _____

Task title: _____

QUESTIONING AND PREDICTING

State the variables for this investigation.

What I will change (Independent variable)	What I will measure (Dependent variable)	What I will keep the same (Controlled variables)

Write the question to be investigated.

Write a prediction and explain why you think this will happen.

PLANNING AND CONDUCTING

List the equipment required for the investigation.

Describe the possible safety risks in this investigation and suggest how they can be managed or controlled.

Write the method for this investigation.

Include how the variables will be changed, measured and controlled.

Draw a labelled diagram of the equipment set-up.

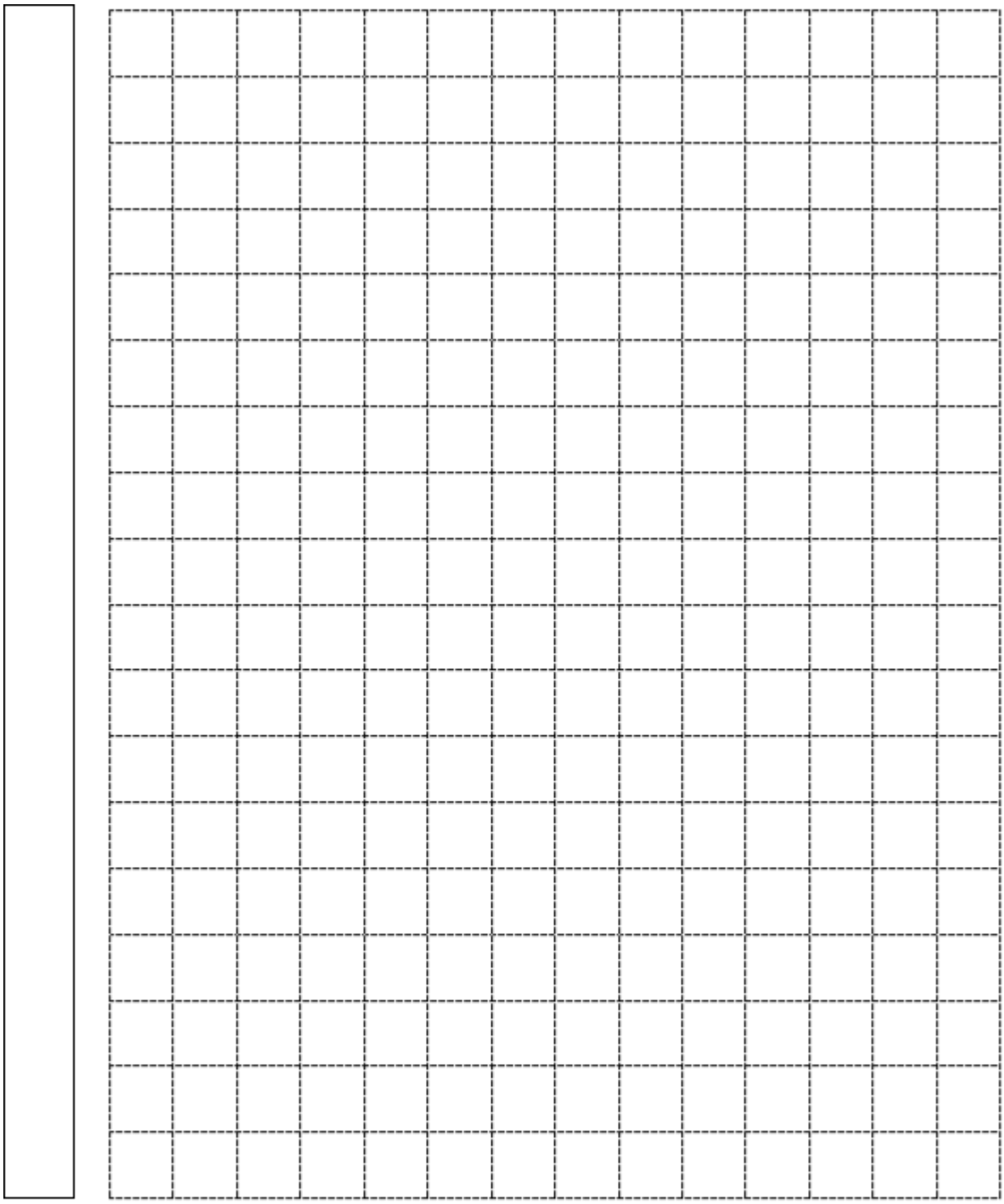
Describe your observations and record your results in a table.

Table title: _____

PROCESSING DATA

Graph the results of the investigation. Label each of the axes and include appropriate units of measurement.

Graph title: _____



ANALYSING DATA

Describe the relationships or patterns in the results.

Explain the relationships or patterns in the results using science ideas.

EVALUATING

Describe how the investigation could be improved.

Marking key

Description	Marks
Questioning and predicting	
Correctly identifies the variable to be changed (independent variable).	1
Correctly identifies the variable to be measured (dependent variable).	1
Correctly identifies at least two controlled variables.	1–2
Subtotal	**4**
Writes a question that can be investigated and is reasonable.	1
Subtotal	**1**
Writes a prediction that describes a relationship between the dependent variable and the independent variable; and matches the question posed above.	1–2
Provides a reasonable explanation for choosing this prediction.	1
Subtotal	**3**
Planning and conducting	
Selects the appropriate equipment required to conduct the investigation.	1–2
Subtotal	**2**
Identifies safety risks associated with the investigation.	1–2
Suggests ways to minimise the risks.	1–2
Subtotal	**4**
Provides a method with a logical sequence of steps.	1–2
Provides a method which contains sufficient detail to allow replication. Detail includes: x how the independent variable is changed x how the dependent variable is measured x how other variables are controlled x plans for repeat trials/replicates.	1–4
Subtotal	**6**
Draws a clear diagram that includes: • equipment shown correctly set up • correct labels.	1–2
Subtotal	**2**
Draws a table that includes: x descriptive title containing dependent and independent variables x information relevant to the investigation x appropriate column headings with units of measurement (if applicable)	1–3
Subtotal	**3**

Processing data	
Graphs data collected from the investigation (if applicable): x provides appropriate graph title x labels axes correctly x includes appropriate units of measurement x plots data correctly x draws the appropriate type of graph.	1–5
Subtotal	**5**
Analysing data	
Describes relationships or trends in the results.	1–2
Refers to specific data when describing relationships or trends.	1
Compares the results to their prediction.	1
Subtotal	**4**
Explains the relationships or trends in the results using science ideas.	1–2
Subtotal	**2**
Evaluating	
Identifies difficulties experienced when conducting the investigation. May include reference to, but not limited to: quality of the data, correct use of equipment, choice of equipment.	1–2
Makes suggestions to overcome the difficulties described, including ways to improve the quality of the data.	1–2
Subtotal	**4**
Total	**40**