# **TITLE (restate your research question as a statement)**



## **NAME:**

## **CLASS:**

## **TEACHER:**

## **DUE DATE:**

## 

STATEMENT OF AUTHORSHIP

The report presented is the sole work of the author. None of this report is plagiarised (in whole or part) from a fellow student’s work, or from any un-referenced outside source.

Student signature:

**Make sure you get rid of the red writing and sentence starters text boxes**

**Make sure you keep the black titles to structure your Research Investigation**

# **Rationale**

**SENTENCE STARTERS RATIONALE**

* *There are several aspects to the investigation to be examined, especially ……*
* *The factors that contribute to this situation include ………*
* *The main effect of …… is …….*
* *The main reason that ……… occurs is ……*
* *The issue has had an impact on …..*
* *There are several reasons for ……..*
* *……….. has multiple causes which include ……..*
* *To determine whether …..………. Has a number of distinguishing/notable features, including ……*
* *The key features of ……… are ……*
* *………..comprises/is composed of/ consists of ……….*
* *The most significant elements of …….. include ……….*
* *This review will use \_\_\_ studies from …….. that have been undertaken to determine ……*
* *The results of these studies will be compiled to investigate ……..*
* *The significant points that appear include …….*
* *The five main ideas from the text are ……*
* *The essence of the investigation is ……*
* Introduction to the topic. Include the claim.
* Must link the research question to the claim – the rationale must have information which leads from a broad research question to the formation of a specific and relevant research question.
* This is where you could discuss a study, organisation or company that is highlighting your claim.
* Discuss information that is surrounding your claim. Can state statistics, but no ‘big’ data yet.
* Contain content explanations for the entire essay.
* Definitions relevant to the topic.
* Ensure the research question and the claim are linked.
* Refer to studies but do not include secondary data supporting the claim here.

## Research question:

* Restate research question.

“Can/Does/To what extent does x for w result in y in z?”

X – Independent variable (commercial fishing operation)

W – Only applicable for this assignment (target species)

Y – dependent variable (ecological impact and how it is measured)

X – context (ecosystem/location)

**Analysis of Evidence**

**SENTENCE STARTERS ANALYSIS OF EVIDENCE**

* *A detailed examination shows ……*
* *The diagram/table/graph provides additional information to the text, especially as it shows …..*
* *The main similarities/differences between …… and …… are …..*
* *There is a complex relationship between ….. and …..*
* *The graph/table/result showed/revealed that …..*
* *The data revealed the following trends …..*
* *The data revealed a strong connection between …..*
* *Specific differences exist between ….. and …..*
* *The similarities between ….. and ….. are more relevant than the differences.*
* *This is similar to …..*
* *The most significant elements of ….. include …..*
* *The main reason that ….. occurs is …..*
* *There are anomalies; however, a general pattern emerges which is …..*
* *The table/graph supports the information in the text by …..*
* *The weight of evidence would suggest that …..*
* *Compared with the data in Table A, the data in Table B shows …..*
* *….. can be supported by the information in Graph A.*
* *However, not all factors were tested …..*
* *Limitations of the studies included ……*
* *Some data was excluded because …..*

There must be sufficient and relevant data in this section and identification of relevant trends, patterns, or relationships. **Therefore, in this section you need to include secondary data and you need at least 2 (ideally 3) different pieces of evidence/studies that support your research question.**

**Structure:**

1. Introduce who compiled the data (the study)
2. Briefly summarise the method used to collate the data
3. Insert the graphs/tables/diagrams used in the investigation (include a figure/table heading)
4. State the trends/relationships that the data shows
5. Analyse the data in more detail by using evidence to support this trend/relationship (use numbers)
6. Were there any limitations? You will need to identify limitations of evidence and thoroughly discuss these – e.g., p-values, error bars or R2 values

Therefore, in this section you need, **tables** and **graphs** that show data that is relevant to your research question, and you must **analyse** the data for **relationships** and **justify** your research question using examples from your data.

# **Evaluation**

## Limitations of data:

**SENTENCE STARTERS EVALUATION:**

* *Studies were chosen in an attempt to ……*
* *This limits the ability to compare the results due to ……*
* *The consistency of results in the papers leads to ……*
* *The strength of reliability of the data shown in ……*
* *It is the lack of consistent results in the papers that leads to …..*
* *There are key challenges for assessing …..*
* *Two of the papers used different techniques ……*
* *Due to the variability and uncertainty…..*
* *This directly impacts on the reliability of the…..*
* *There is a great deal of evidence to support …..*
* *Clearly, it can be concluded that …..*
* *Thus, in summary, …..*
* Compare the studies’ sample size (Was the sample size too small?)
* Is there any uncertainty/biasness about data? (Could the catch size be lower due to management measures? Or could the data be skewed to lower the impacts on biodiversity?)

## Limitations of data collection:

* Compare how each study collected the data (Could each study be replicated? Did they all collect similar data? Did the studies differ in terms of what was measured?)
* Relate this to whether the data is reliable and valid (This must be factual and not your opinion)

## Limitations of data analysis and use of models:

* Compare where the data was retrieved from (Were they from reputable sources – reliable science organisations?)
* Compare when the data was collected for each study (Was the data collected in the last decade or later? What does this imply?)
* Is there consistency with the results from each study?
* Is there limited data on this topic?

# **Conclusion**

**SENTENCE STARTERS OVERALL RESULTS**

* *The evidence collected allows the following conclusions to be made …..*
* *There are significant advantages/disadvantages with …..*
* *There are several flaws in the study such as …..*
* *There is very little evidence that …..*
* *All the evidence suggests …..*
* *Several sources have been used to create …..*
* *All evidence and supporting documentation points to …..*
* *Research has enabled the following conclusion to be reached …..*

## Overall results:

* A summary of your results and whether your research question is conclusive? Is it refuted or accepted? (Do all the studies relate back to the research question? Can the research question be answered?)
* Justification using evidence linking back to the original claim
* Concluding statement regarding the quality of evidence

## Further Investigations required:

* What other studies could be carried out to help increase the validity of the findings in relation to your claim?
* What would be your suggested improvements?

**SENTENCE STARTERS FURTHER INVESTIGATION**

* *There are more details to be examined and these include …..*
* *Improvements might include …..*
* *It could be recommended that …..*
* *It would appear reasonable to conclude that ….., and therefore recommend …..*
* *Based on the findings, the following recommendations can be made.*
* *Research could be extended upon to …..*
* *The following recommendations, listed in order of priority, are put forward for consideration:*
* *For the future, it is recommended that …..*
* *A list of the proposed recommendations with a summary of the reasons for each follows:*
* What are the possible future/long term implications of the investigations?

## Word Count: \_\_\_\_\_

Table

Description automatically generated

# **Reference List**

* APA Format
* Go to citethisforme for assistance

