**Research Investigation – 10 Marine Science**

**How to write a rationale for a research investigation:**

**Paragraph 1:**

Step 1: Copy and paste the claim into google.

Step 2: Read through some general articles, summarise what you find.

Step 3: What is missing? What further research needs to be conducted?

***Example of Paragraph 1:***

*The claim “Commercial fishing operations are leading to a decline in marine biodiversity” was broadly discussed in the article (insert article name) by (insert author). Within the article it described…(link between overfishing and a decrease in biodiversity or abundance). This means…(describe the implications of this). This led to further research being required to determine which commercial fishing method is having the greatest negative impact on marine biodiversity.*

**Paragraph 2:**

Step 4: Write a topic sentence that leads on from broad scale effects of commercial fishing methods and refines to a broad research question

Step 5: Describe the broad negative impacts on marine ecosystems in more detail by completing some more research.

Step 7: Find a particular study that focuses on a particular commercial fishing method and target species.

***Example of Paragraph 2:***

*Types of commercial fishing practices that have been reported to have catastrophic impact on the functioning of marine ecosystem are (insert types). To narrow down the research to a specific method a broad research question (insert broad research question) was established. The impact of … (insert). For example, a study by (insert author) investigated the effects of (insert specific commercial fishing type) on (target species) and identified that (relationship to biodiversity). This commercial fishing practice…(describe in more detail what it is actually occurring in the ecosystem/location).*

**Paragraph 3:**

Step 7: Narrow down on the ecosystem this commercial fishing practice occurs in (context) and introduce the measured impacts on biodiversity

Step 8: introduce specific and relevant RQ

Step 9: Introduce the studies that will be used to analyse and support you RQ

***Example of Paragraph 3:***

*(Insert fishing method) occurs most commonly across (insert ecosystem/habitat) and therefore has strong negative effects on (insert particular species or trophic groups) Thus the following specific research question was developed…(insert final research question). To address this research question studies by (insert authors/names of the articles)…will be analysed.*