

Data Detectives: Analysing Our World

Learning objective: To identify, interpret, and present data sets effectively using digital tools and logical reasoning.

Use this writing frame to document your data investigation. Think like Kit the fox—be precise, logical, and observant. Use the word bank to help explain your findings clearly.

After meticulously collecting our raw data, the first stage of our investigation was to categorise the information into a structured database.

Word bank: consequently · furthermore · in contrast · significant trend · anomalous result · correlation · data representation · justification · variable · quantitative analysis

1. Data Collection Methodology: How did you decide which variables to track, and what methods did you use to ensure your data remained accurate and reliable? Start by saying: 'To ensure the integrity of my data, I decided to focus on...' (2 marks)

2. Visual Representation: Explain why you chose your specific method of data presentation (e.g., bar chart, line graph, or pie chart). Start by saying: 'I selected a [type of chart] because it most effectively demonstrates...' (2 marks)

3. Analysing Trends: Identify a significant pattern you discovered within your data set. Start by saying: 'Upon reviewing the results, a clear trend emerges where...' (2 marks)

4. Anomalous Results: Did you encounter any data points that did not fit the expected pattern? Explain why these might have occurred. Start by saying: 'An interesting anomaly I observed was... which could be explained by...' (3 marks)

5. Justification: Based on your analysis, what conclusions can you draw about the subject? Start by saying: 'The evidence suggests that... which justifies the conclusion that...' (3 marks)

6. Predictive Reasoning: What might happen if you changed one of the variables in your investigation? Start by saying: 'If I were to adjust the [variable], I predict that the data would...' (3 marks)

Extension challenge: Design a secondary investigation. If you were to present this data to a group of experts, which specific digital tool would you use to create an interactive dashboard? Justify your choice by comparing and contrasting two different software applications.