

Name: _____

TERM 1 ASSESSMENT TASK

Data Cycle Assessment Task 1

Completed

Step 1:	Investigative question	<input type="checkbox"/>
Step 2:	Data collection	<input type="checkbox"/>
Step 3:	Data analysis	<input type="checkbox"/>
Step 4	Interpret and communicate	<input type="checkbox"/>

Introduction

More and more people are accessing their information through social media. To capture an individual's attention this information needs to be presented in an innovative, engaging, and clear visual representation. In this assessment you will be gathering data to answer a question about your daily life. You will create a data representation that captures the attention of your audience, your peers.

You will ask a question regarding an activity in your daily life and then collect data to answer this question within a 24-hour period. You will organise, analyse, and interpret this data before creating a visual display of your data.

Step 1: Investigation question

Brainstorm some ideas and ask questions.

- What every day activity can you collect data on?
- Can you observe this activity within a 24-hour period?
- What is the question you will be answering?

Select an idea and explain why you choose this idea over the others.

Step 2: Data collection

- How will you collect the data and organise your data?
 - Are you using a device to collect data?
 - Are you using a Frequency Table?

- Hard copy or excel?
- Will you use video footage?
- What of the data you collected is useful and what isn't? What data can you use to answer your question?

Step 3: Data analysis

- Look for patterns and meaning.
- What techniques (mean, mode, median, range) might you use to answer your question? Make any relevant calculations.

Step 4: Interpret and communicate

- How will you present your data?
 - Poster
 - Slideshow
 - Video
 - Data story
- What conclusion does your data support, what is the answer to your question?
- Have you displayed your data in an engaging or innovative way?
- Have you displayed your data clearly, is it easily understood?

Data Cycle – Assessment Task 1

Step 1: Investigation, The Question

Brainstorm three ideas, examples below:

I wonder: What apps I use in a day?
My ideas: <ul style="list-style-type: none">• What apps do I have on my device(s)?• How much time do I spend on each app?• Can I use my device(s) to monitor my usage, or do I need to create a frequency table?••
The Question:
I will/will not be using this idea because...
I wonder: How much caffeine I consume in a day?
My ideas: <ul style="list-style-type: none">• What times of the day do I consume Caffeine?• In what format do I consume Caffeine, e.g., coffee, tea, chocolate, energy drinks?• What amount of caffeine is in each item?••
The Question:
I will/will not be using this idea because...
I wonder: Am I sociable?
My ideas: <ul style="list-style-type: none">• How many people do I communicate with each day?• How do I communicate, e.g. in person, via text, via app...••
The Question:
I will/will not be using this idea because...

Step 3: Data Analysis:

Calculating Mean:

$$\text{Mean Formula}$$
$$\text{mean} = \frac{\text{sum of the terms}}{\text{number of terms}}$$

Calculating Mode:

Mode
the number that shows up the most

5, 23, 6, 9, 5, 4, 9, 5
mode: 5

5, 9, 6, 9, 5, 4, 9, 5
modes: 5 and 9

Calculating the Median:

Calculating The Median

the order of the numbers
in the set matters.

The median is the middle
value in set when the data are
arranged from least to greatest.

{2, 1, 2, 2, 3}

{1, 2, 2, 2, 3}



the median

Your Calculations:

Are there any patterns in the data, what is there meaning?

Which analysis is relevant to answering your question, please explain?

Step 4: Interpret and communicate.

How will you present your data? E.g. Poster, slideshow, Video, data story, 3D ...

Brainstorm some ideas:

- Which of your ideas is most engaging?
- Which of your ideas is the most innovative?
- Which of your ideas is the easiest to understand?
- Do you have the skills to create your idea?



