My Trip to the Volcano



In this assessment, you will create a Distance- Time graph for your trip to a volcano. Below is an example.



Story: During the school holidays, we decided to visit One Tree Hill. We had a wonderful time hiking the volcano and then playing at Cornwall park. It was almost 5pm when we decided to return. Since it was almost dinner time, we thought that we should stop at McDonald's for a meal. Due to there being an accident and also being at peak traffic time, it took us almost 30 minutes to reach McDonalds.

Meanwhile we got a call from my sister, to be picked up as she was very close to McDonalds. We had to drive back a little to pick her up. By that time fortunately the rush hour traffic had cleared and we could drive back home faster.

Note: The above graph is a very simple example for a travel graph.

Assessment Criteria

Part 1- Create a travel graph

- As shown above, plot a graph and write a short story about your journey to the different volcanoes in Auckland. The story needs to relate to the graph.
- Make sure that you label your graph properly and use a good scale.
- Calculate the speed for the parts where it is constant. Show the working steps and correct unit of measurement. For eg: Km/hr, mph or m/sec
- You will need to create your own graph and not use the one above.

Part 2- Using the distance and time shown on Google maps, calculate the average speed between 4 different volcanoes in Auckland.

- You can choose the volcanoes.
- You will need to show accurate calculations and units of measurement.

Part 3- Either screen shot or print out the map of Auckland and calculate the following.

- Accurate compass directions between 4 different volcanoes in Auckland.
- The distance between volcanoes using the scale provided on google map. Note, that the distance shown on Google maps will differ from your calculations, as Google measures the distance through proper roads.

TAAB

<u>Te whakaata pūāhua | Representing situations</u>

| Criteria | Working TOWARDS | Working AT | Working ABOVE | Working BEYOND |
|------------------------|--|---|--|--|
| Distance-Time Graph | You have shown some understanding of <i>graphing linear</i> <i>functions and</i> <i>interpreting the</i> <i>gradient in a</i> <i>practical situation</i> on [The Journey] | You have shown an understanding of graphing linear functions and interpreting the gradient in a practical situation on [The Journey] | You have shown a strong understanding of <i>graphing linear</i> <i>functions and</i> <i>interpreting the</i> <i>gradient in a</i> <i>practical situation</i> on [The Journey] | You have shown a comprehensive understanding graphing linear functions and interpreting the gradient in a practical situation on [The Journey] |
| Use Map Scale | You have shown some understanding of <i>simple scale and</i> <i>compass points to</i> <i>describe positions</i> <i>and pathways</i> on [The Journey] | You have shown an understanding of scale and compass points to describe positions and pathways on [The Journey] | You have shown a strong understanding of <i>the map scales to</i> <i>describe positions</i> <i>and pathways</i> on [The Journey] | You have shown a comprehensive understanding of <i>the</i> <i>map scales to</i> <i>describe positions</i> <i>and pathways</i> in [The Journey] |
| Overall Grade | Working TOWARDS | Working AT | Working ABOVE | Working BEYOND |