



Education and Research: Testing Hypotheses

Name(s)

Period:

Glacier Analysis Worksheet

Name of Glacier	
Type of Graph	
<p>Using the companion glacier data sheet, select a glacier and plot time (year) as x and area (m^2) as y, as specified by your teacher. Why was this type of graph used to represent the data?</p>	
<p>What is the dependent variable used in your graph? What is the independent variable used in your graph?</p>	
<p>What is the general trend of the graph? Look for patterns in your data.</p>	

Analyzing and interpreting the data: What is the graph telling you? Explain your ideas using 3 or 4 sentences.

How fast is the area of the ice changing? (velocity) Show your calculations. You should have 3 different answers for times between the data points.

How fast is the rate at which the ice area change is occurring? (acceleration) You should have two calculations based on differences in your 3 velocities.

What happens to the melt rate as **glacier elevation** increases? Decreases?(add elevation information as required). Using graphing tools in Google Sheets, create a graph to represent what you are asserting. Compare your results with another classmate. How are your results alike or different?

What happens to the rate of melting as **glacier latitude** increases? Decreases? Is there a relationship between glacier latitude and rate of melting? (add latitudes information as required). Create a graph to represent what you are asserting. Compare your results with another classmate. How are your results alike or different?

What happens to the rate of melting as **glacier longitude** increases? Decreases? Is there a relationship between glacier longitude and rate of melting? (add elevation information as required). Use graph paper and create a graph to represent what you are asserting. Compare your results with another classmate. How are your results alike or different?

Well done!

What was the most interesting part of this information? Why?