

Climate Controls, Climate Zones, and Climate Change Earth Science/Geology Mr. Traeger
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Name: _____ Period: _____ Date: _____

Part 1: Climate Controls

1. What is climate?

2. What are the two main characteristics of an area's climate?

3. What are three other characteristics of an area's climate?

4. Describe the specific climate controls for each of the following conditions. See page 467 in text.

	Temperature	Precipitation
Latitude		
Elevation		
Nearby Water		
Ocean Currents		
Topography		
Prevailing Winds		
Vegetation		

5. What are the major climate controls on our climate here in La Cañada? Be specific in regards to temperature and precipitation.

6. What is El Niño? How does it change our climate here in La Cañada?

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Part 2: Climate Zones

1. Fill in the following climate zone chart by naming the subclimates and by giving a detailed description for each subclimate. Also give an example location or city that would experience each climate.

Climate Zone	Subclimate	Description	Example City/Location
Polar			
Dry			
Humid tropical			
Moist mid-latitude with mild winters			
Moist mid-latitude with severe winters			
Highland			

Part 3: Climate Change

1. What has happened to Earth's climate in the past 420,000 years? How do temperatures compare to the present day? See graphic on page 474.
2. How does the global heat budget affect climate change?
3. Describe how the following items have caused climate change.

Cause of Climate Change	Effect of Climate Change on Global Scale
Earth's Motions	
Plate Tectonics	
Sunspot Activity	
Volcanic Eruptions	
Human Effects	

4. Describe the following methods that are used to measure climate change.

Sea-floor Sediments	Glacier Ice Core Samples	Tree Growth Rings