

# Project Journal: Water Towers and Shrinking Glaciers

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Name

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Date

**Directions:** Record your responses to each of the following prompts using words and images.

1. Define the following terms in the spaces below:

Temperature:

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Wind:

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Barometric pressure:

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Relative humidity:

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2. Record your observations of the real-time [weather data](#) from the five weather stations on Mount Everest below:

Weather Station	Temperature	Wind	Barometric Pressure	Relative Humidity
Phortse (3810m)				
Base Camp (5315m)				
Camp II (6464m)				
South Col (7945m)				
Balcony (8430m)				

3. What did you learn from the weather data and the *Real-Time Data* video? What was surprising? What questions do you have? Record your response in the space below.

4. Create three cause-and-effect chains below that follow the *Draining California* interactive from snowpack in the mountains to human populations in the Central Valley. In the blanks, use an up arrow to indicate an increase, and a down arrow to indicate a decrease.

\_\_\_\_\_ Snowpack → Reservoirs at \_\_\_\_\_ levels → \_\_\_\_\_ Reliance on groundwater

\_\_\_\_\_ Snowpack → Water → \_\_\_\_\_ Crops + \_\_\_\_\_ drinking water

Early snowmelt + rain instead of snow → \_\_\_\_\_ water from reservoirs to keep from flooding → \_\_\_\_\_ water during summer dry months in the reservoirs

**Summary: Overall, what impact does less snowpack have on the Central Valley?**

5. Discuss the following questions in your group after reading the *Glacier* encyclopedic entry and record your responses in the space below.

- How do people benefit from glaciers?
- What threats are there to glaciers? What is the effect of these threats on the glaciers?
- How will the affected glaciers impact humans and other organisms?

6. What did you learn from the data about snowpack and glacier sizes over time? What was surprising? What questions do you have? Record your responses in the space below.

7. What factors are causing the glaciers and snowpack to melt? Complete the “cause” side of this cause-and-effect table.

Causes	Effects
Additional questions I have about factors causing glaciers and snowpack to melt:	Reduced glaciers and snowpack, which may lead to less freshwater accessibility in the long term