Sample Assignments

Latitude, Longitude, and **Elevation!**
or
North, South, East, West and UP !

Elevation is very important in California. Locations at low elevation are warmer and have less rain or snow than location at higher elevations. Locations and high elevations usually get snow in the winter.

Mountains in the Sierra Nevada might receive up to 20 feet of snow during the winter! But it almost never snows in California's valleys or low elevation areas. The table below shows differences for two California locations:

	Mammoth Mountain	**Watsonville**
Latitude	37 deg./38'/11"	36 deg./54'/47"
Longitude	118 deg./58'/48"	121 deg./46'/32"
Elevation	8700 feet above sea level	80 feet above sea level
Yearly snowfall	Over 8 feet!	0 feet, 0 inches
Normal Winter temperature	22 degrees F	63 degrees F
Normal Summer temperature	70 degrees F	70 degrees F

You probably noticed that the difference in latitude between the two locations is not very large. This could **not** explain the difference in the climates of the two locations. It is the elevation difference between Mammoth Mountain and Watsonville that makes the two locations very different. If you like to live in the snow, go to Mammoth Mountain. If you like the temperature to be above freezing all year long, go to Watsonville.

Locations at high elevation in California are usually in the mountains, which makes it more difficult to travel. Locations at high elevations in California do not have much soil or dirt, which makes it hard to grow food there. But the most important differences for people, animals, and plants are the snowfall and temperature.

Please answer the questions below:

1. **If you wanted to grow strawberries, would you plant them in Mammoth Mountain or Watsonville? Why?**

2. **If you wanted to open a ski resort, would you want to live in Mammoth Mountain or Watsonville? Why?**

3. Here is a picture of a marmot:

Marmots have a very thick fur coat. They eat roots and grasses. Their tough feet are perfect for climbing over rocks. They hibernate in the winter.

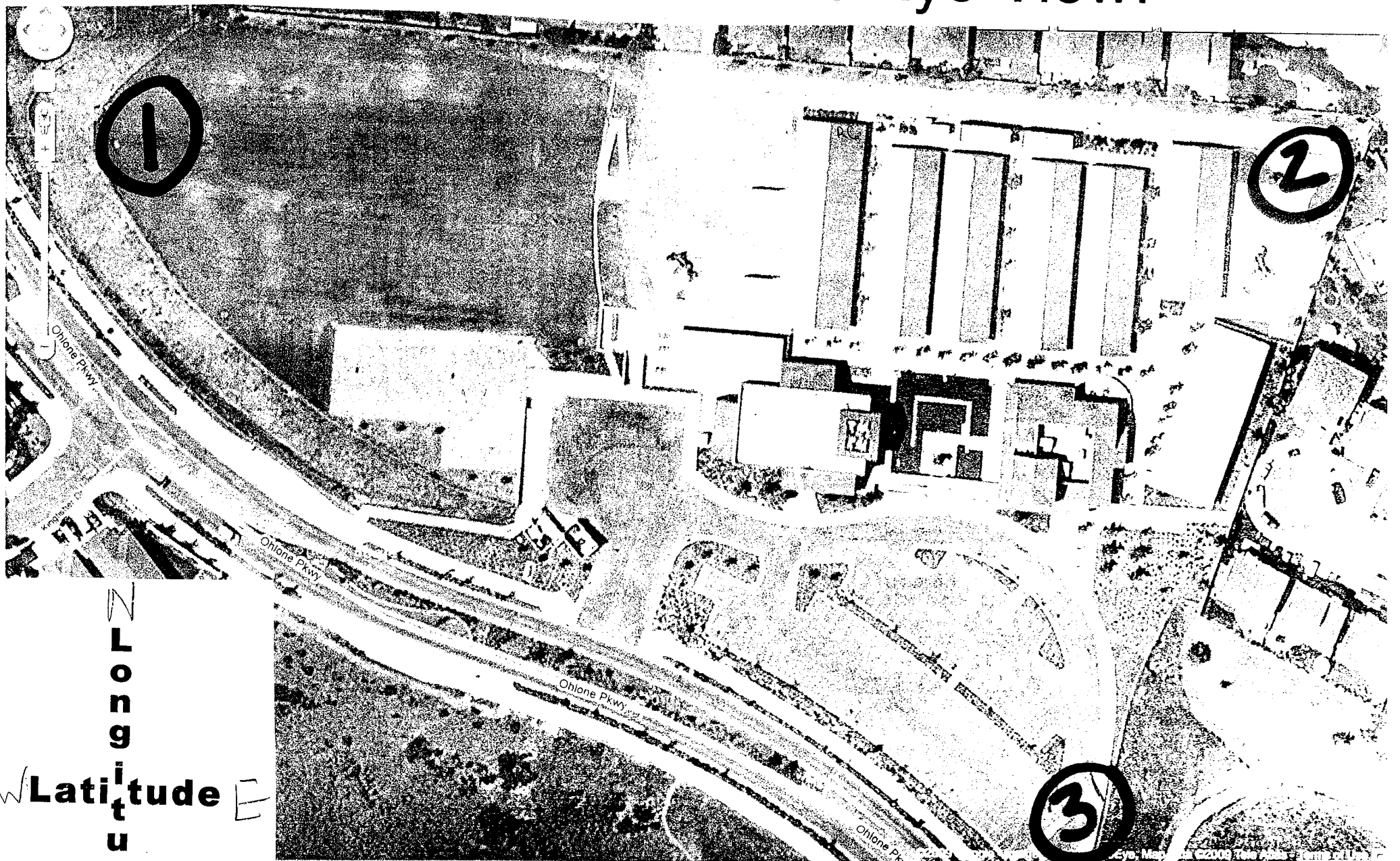
If you were a marmot, would you prefer to live in Mammoth Mountain or Watsonville? Why?

4. But you are not a marmot. Would you like to live at a high or low elevation location? Why?

Salt Flour Relief Map Examples

LeagenD
Central valley
Mountains
Coast
Deserts
Sacramento
San Diego
Pacific Ocean
Colorado Desert

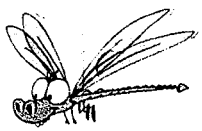
Landmark School: A Bird's Eye View!



N Longitude S

W Latitude E

Latitude and Longitude Measurements at Landmark School



Name:

Date:

Group:

Latitude is measured in degrees, minutes, and seconds

1. Record the latitude and longitude of Room 6
Latitude: 36 **°(Degrees)** 54 **Minutes** 48 **Seconds**
Longitude 121 **°(Degrees)** 46 **Minutes** 33 **Seconds**

2. What direction will you walk to get to your location? N S (E) W

East

3. Did the latitude change as you walked to your location? (Y) N
4. If yes, describe how: each time we moved the numbers changed

5. Did the longitude change as you walked to your location? Y (N)
6. If yes, describe how:

7 **5. Describe your location:** we were by the big pipes

8 **6. Record the latitude and longitude of your location #** 2
Latitude: 36 **°(Degrees)** 54 **Minutes** 48 **Seconds**
Longitude 121 **°(Degrees)** 46 **Minutes** 29 **Seconds**

Latitude is measured in degrees, minutes, and seconds

1. Record the latitude and longitude of Room 6
Latitude: 36 **°(Degrees)** 54 **Minutes** 48 **Seconds**
Longitude 121 **°(Degrees)** 46 **Minutes** 33 **Seconds**

2. What direction will you walk to get to your location? N S E (W)

3. Did the latitude change as you walked to your location? Y (N)
4. If yes, describe how:

5. Did the longitude change as you walked to your location? (Y) N
6. If yes, describe how: for six seconds

7. Describe your location: on the western of room 6. grass is mushy. farest western of school

8. Record the latitude and longitude of your location # 1
Latitude: 36 **°(Degrees)** 54 **Minutes** 48 **Seconds**
Longitude 121 **°(Degrees)** 46 **Minutes** 34 **Seconds**