

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Unit 5: Climate in the Western Hemisphere



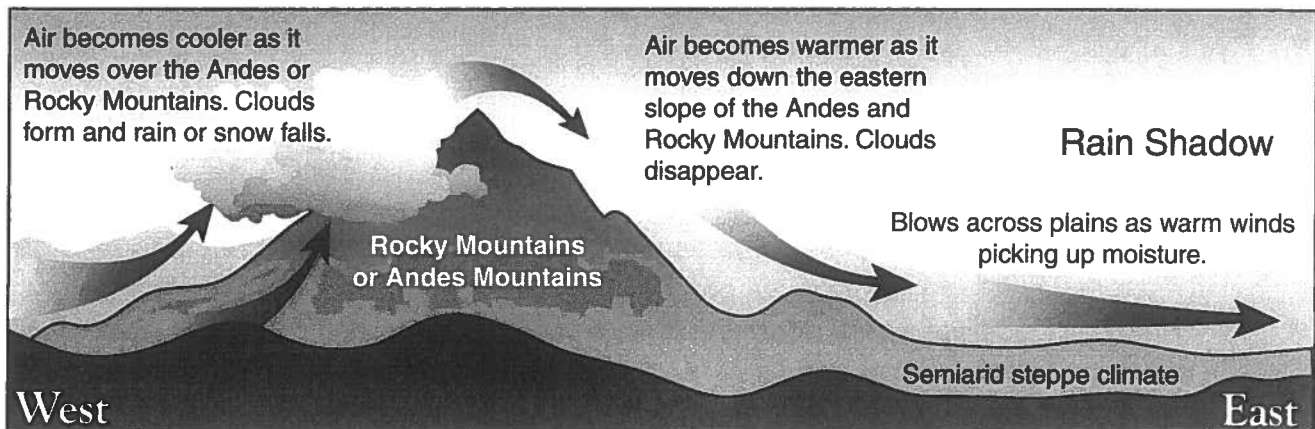
### E. Steppe or Semiarid Climate

Where the **steppe** or **semiarid climate** is found, the rainfall is 10 to 20 inches per year. In the United States, most of the region between 100 degrees west longitude and the eastern slope of the Rocky Mountains is steppe. In South America, most of the steppe climate is on the eastern side of the Andes in Argentina. In steppe regions where the rainfall is nearly 20 inches per year, the vegetation is tall grass. However, in steppe areas where the rainfall is ten inches or less, short, sparse grasses become common. Since the steppe regions are located inland away from large bodies of water, the summer days can become very warm, with temperatures reaching 100 degrees. Sheep and cattle are raised on the grasses in this climate.

In both North and South America, the steppe region is on the eastern side of a high mountain range. When the westerlies rise over the western side of the mountains, the air mass cools, and rain or snow falls. As soon as the air starts down the eastern side of the mountains, it warms and picks up moisture, making the region drier.

The vegetation is usually short grasses. The area on the east side of the Rocky Mountains and Andes Mountains is called the “rain shadow.”

DIAGRAM 3



Using **Maps 12a, 12b, 12c**, and **an atlas**, complete the following activity.

1. The number 4s indicate the regions with a semiarid or steppe climate. Draw a line around the 4s to show this.
2. The semiarid, or steppe, climate is found in
  - a) Argentina, Uruguay, Ecuador
  - b) Argentina, the United States, Canada, and British Guiana
  - c) Argentina, the United States, Canada, and Mexico.
3. True or False. A large part of the Great Plains in the United States has a semiarid climate.
4. True or False. The semiarid climate is found on the Patagonia Plateau in Argentina.
5. True or False. The semiarid climate is most commonly found near the coast.
6. True or False. The semiarid climate is most commonly found on the western side of the Andes and the Rocky Mountains.
7. True or False. Large areas of semiarid climate are found inland away from the coast.
8. True or False. In both North and South America, sheep and cattle are raised in regions with a semiarid climate.

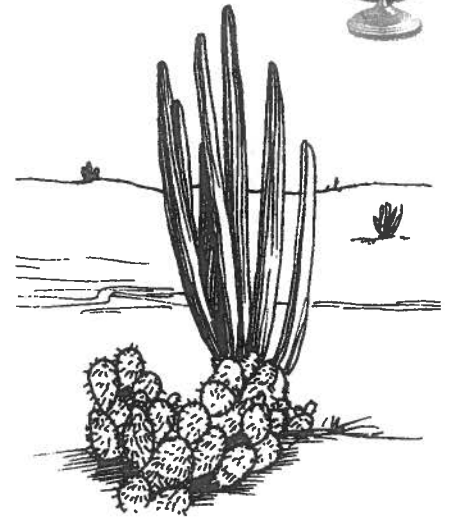
Name: \_\_\_\_\_ Date: \_\_\_\_\_

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### F. Desert Climate

The **desert climate** is found in the southwestern region of North America, in the Patagonia Plateau in Argentina, and along the Pacific Coast of Chile, Ecuador, and Peru in South America. The desert climate has very hot summers. Rainfall is less than ten inches per year, and little, if any, vegetation is found.



Using **Map 12b**, **12c**, and an **atlas**, complete the following. The number 6s indicate the desert climate.

- Place a "+" on the blank if a desert climate is found in any part of the following states.

_____ Arizona	_____ Iowa	
_____ Maine	_____ Missouri	_____ New Mexico
_____ Nevada		

- Place a "+" on the blank if a desert climate is found in any part of these South American countries.

_____ Argentina	_____ Chile	_____ Colombia	_____ Ecuador
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On **Map 12b**, the letter "m" locates the Mojave Desert. On **Map 12c**, the letters "AT" locate the Atacama Desert.

- The Atacama Desert is a very dry desert with no rain falling for years. It is located in
  - Brazil
  - Texas
  - Chile
  - Venezuela
- The Mojave Desert is located on the continent of
  - North America
  - South America.
- The Mojave Desert is located in
  - Chile
  - Uruguay
  - California.

### G. Highland Climate

A **highland climate** is found in both North and South America. The highland climate is marked by much cooler temperatures than surrounding lower elevations. For each one thousand feet of elevation, the temperature becomes three degrees cooler. As the temperature becomes cooler, the vegetation changes.

In South America, many people live on the high plateaus in the mountains. People living on the plateaus are thousands of feet above those who live along the Pacific coast. The plateaus are surrounded by high mountains.

Along the Pacific coast in South America, the climate is much warmer than is found on the highland plateaus. In some regions, the coastal area is desert, while along other regions the coastal areas are wetter and more humid.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

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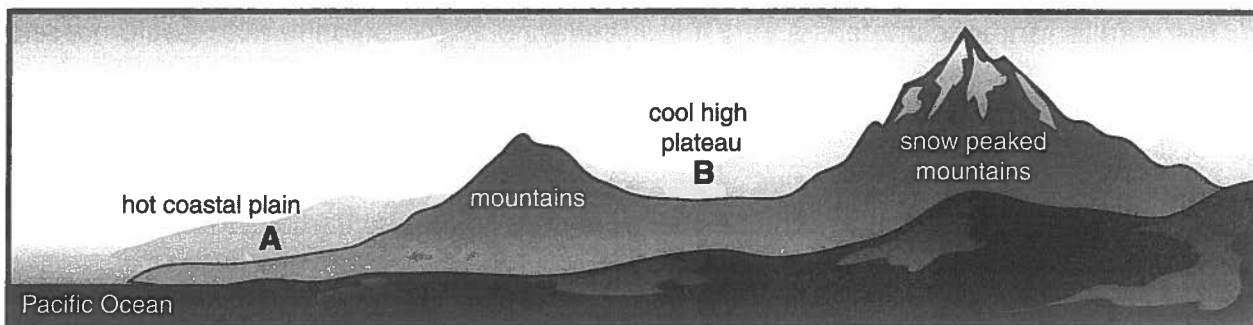


### G. Highland Climate (cont.)

In **Diagram 4** below, imagine the letter “A” is a city along the coast of Peru and the letter “B” is a city on the high plateau in Peru. Imagine the high, snow-capped mountain is Mt. Coattail, which is over 29,000 feet high.

- A. Elevation 100 feet or near sea level. Average temperature for coldest month 77°F. Average temperature for warmest month 82°F. Average yearly rainfall 34 inches.
- B. Elevation 9,000 feet. Average temperature for coldest month 54°F. Average temperature for warmest month 65°F. Average yearly rainfall 20 inches.

**DIAGRAM 4**



Using **Diagram 4** above, answer the following questions.

1. In traveling from City A to City B, the average monthly temperature becomes much
  - a) warmer    b) cooler.
2. The average temperature decreases by three degrees for each 1,000 feet of elevation. If the average temperature in City A is 82°F, and the elevation is 0, you would expect the average temperature in City B at an elevation of 9,000 feet to be
  - a) 72°F    b) 40°F    c) 82°F    d) 55°F.

In South America, many people live on the plateaus in the high Andes Mountains. One famous plateau is the Altiplano. People have lived there for hundreds of years. The main center for the great Inca civilization was located there. Two large lakes located on the Altiplano are Lake Poopó and Lake Titicaca.

Using **Map 12b**, **12c**, and an **atlas**, complete the following activity. You will need a purple colored pen or pencil for this activity.

1. Number 7s indicate the region with a highland climate. Color the regions with 7s purple.
2. The letters “AP” indicate the location of the high Altiplano. It is located in the countries of
  - a) Venezuela and Peru    b) Peru and Bolivia    c) Argentina and Paraguay.
3. Lake Poopó and Lake Titicaca are identified with a gray shaded lake symbol near the Altiplano. These lakes are located in
  - a) Venezuela and Brazil
  - b) Colombia and Peru    c) Peru and Bolivia    d) Argentina and Paraguay.
4. Place a “+” on the blank if a highland climate is found in any part of these states.
 

_____ Colorado	_____ Idaho	_____ Illinois	_____ Oregon
_____ Washington	_____ Wyoming		