

Climate



Maps and Graphs



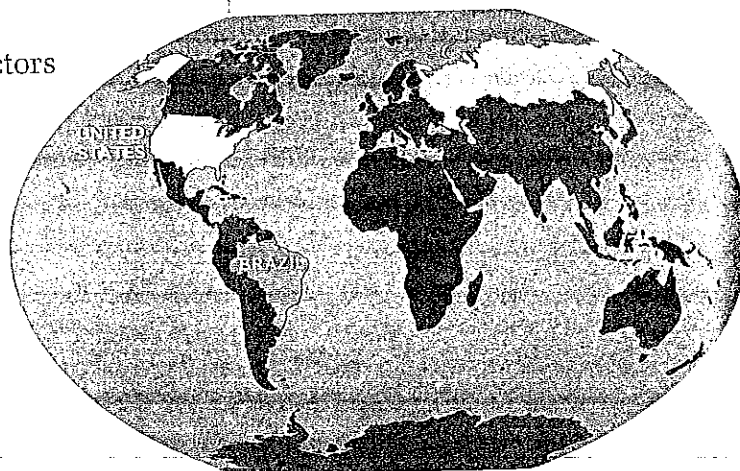
Connect to NG

In this unit, you learned that climate is the average condition of the atmosphere in a region over a long period of time. Climate is determined by the latitude of a location, as well as by ocean currents, air currents, and elevation.

Two important factors of climate are temperature and precipitation. These factors determine the length and timing of the growing season and influence the types of economic activities in a region. For instance, a country with year-round warm temperatures and precipitation probably has a better agricultural industry than a country with low temperatures and a short rainy season.

Compare

- Brazil
- Russia
- United States



CLIMATE MAPS AND CLIMOGRAPHS

A climate map provides an overview of the climate in a region. However, sometimes more specific information about a city or country is needed. Geographers use a special tool called a **climograph** (climate + graph) to graphically show a range of temperature and precipitation in a place over a period of time. A climograph includes a bar graph that shows the amount of precipitation for a location. Average monthly temperature is shown by a line connecting 12 points, one for each month of the year.

Climographs are useful in comparing the climates of two different locations. They help geographers and others better understand the effects of climate on human activities in those locations.

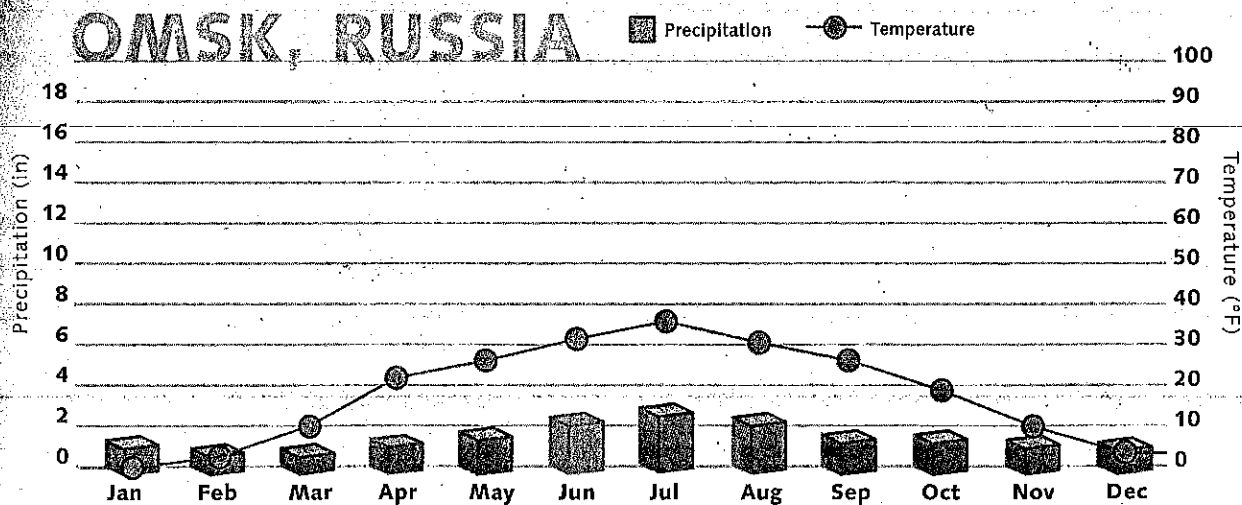
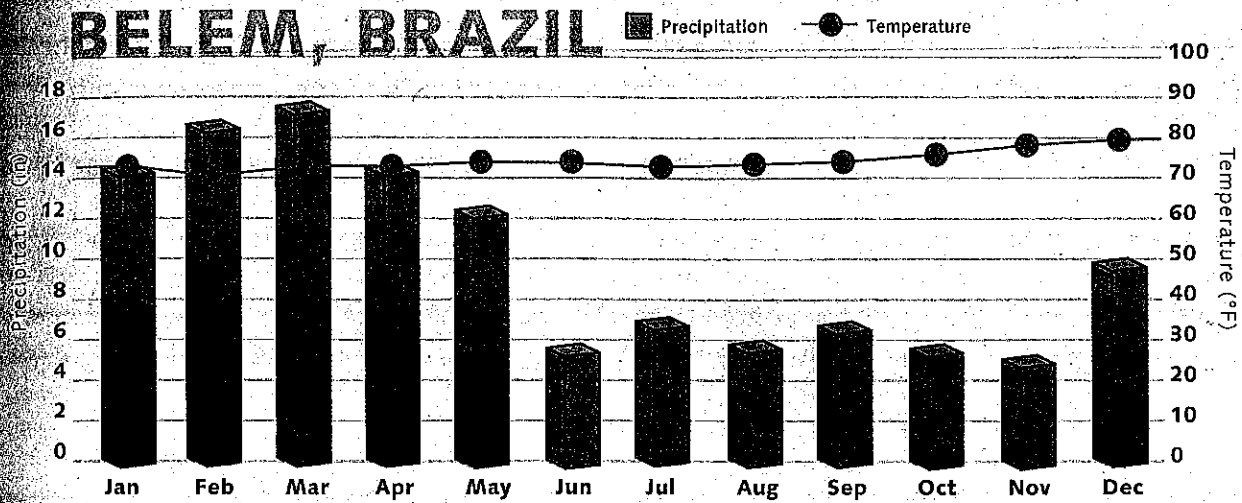
INTERPRET CLIMOGRAPHS

Look at the climographs for the cities of Belem, Brazil, and Omsk, Russia, on the opposite page. The months of the year are listed across the bottom of each climograph. A scale on the left vertical axis measures precipitation, or rainfall, in inches. A scale on the right vertical axis measures temperature in degrees Fahrenheit (°F).

The bars on the climographs show the rainfall for Belem, Brazil, and Omsk, Russia. The lines connecting the dots show the range of temperatures for each location.

Study the data in the climographs to analyze the climate in Belem and Omsk. Then answer the questions at right.

AVERAGE MONTHLY TEMPERATURE AND PRECIPITATION



Source: National Drought Mitigation Center,
University of Nebraska-Lincoln

ONGOING ASSESSMENT

RESEARCH LAB



GeoJournal

- 1. Interpret Graphs** How would you describe the range of temperatures in Belem? What is the average temperature in Omsk in January? In July?
- 2. Make Inferences** Most crops need water and warm temperatures in order to grow. Based on this information, what can you tell about the growing season in each city?

Research and Create a Climograph Choose a city in the United States and do research to find the average temperature and rainfall for each month of the year. Record the data in a chart. Use the data to create a climograph for that city. Then, with a partner, write three questions to help someone analyze and compare data on your two climographs.