

CHAPTER 30**Critical Thinking Activity****Island Southeast Asia****Tropical Rain Forests**

Island Southeast Asia is home to many ancient tropical rain forests. Indonesia alone contains about 10 percent of the remaining tropical rain forests of the world. Read the information below and answer the questions that follow.

Strictly defined, a forest is a large area covered with trees grouped so that their foliage shades the ground. Most forests need at least 75 cm (30 in.) of rainfall a year. Areas that receive consistently less rain do not support extensive forests. Millions of years ago, they covered more than 60 percent of Earth's surface. Natural causes, such as radical changes in climate and the movement of glaciers, along with people-related causes, such as the clearing of trees for firewood, farms, and settlements, have destroyed half of the world's original forestlands.

Tropical rain forests are found mainly near the Equator, where the climate is warm and wet year-round. Annual rainfall is about 200 cm (80 in.) and can go as high as 1,000 cm (400 in.) in some tropical rain forests. The average temperature in most rain forests is 27° C (80° F). The chief characteristic of rain forests is their mixture of trees. While one square kilometer of a temperate deciduous forest in eastern North America might have 25 or fewer tree species, an area of the same size in a rain forest may have as many as 1,000 tree species. Broadleaf evergreen trees, vines, sparse undergrowth, and nutrient-poor soils are common characteristics of this kind of forest.

Tropical rain forests encircle the planet, forming an uneven green belt between the Tropic of Cancer at about latitude 23½° N and the Tropic of Capricorn at about latitude 23½° S. These rain forests are home to nearly half Earth's plant and animal species, some of which can live nowhere else.

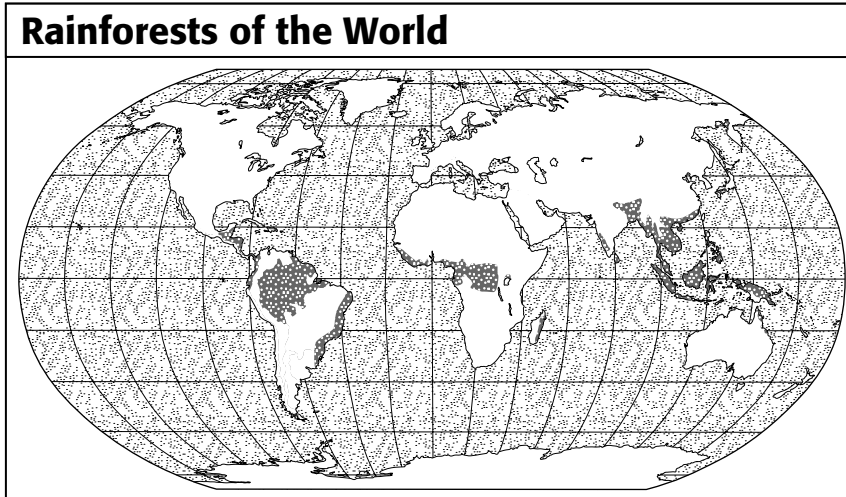
Tropical rain forests once covered more than 1.6 billion hectares (4 billion acres) of Earth. Today, half of the tropical rain forests are gone. Millions of animal and plant species live in tropical rain forests, and the discovery of new species continues. Some species can be found only in a tropical rain forest. More than a thousand kinds of trees have been identified in a square kilometer of tropical rain forest.

Tropical rain forests are a valuable natural resource. Millions of people live in rain forests, relying on them to fulfill their needs for food and fuel. The rest of the world relies on rain forests for such by-products as rubber, wood, dyes, oils, foods, and medicines. More than 40 percent of prescription drugs in the United States contain ingredients derived from plants, many of them from rain forests.

Clearing forestlands for farming, ranching, logging, and mining is rapidly decreasing the remaining rain forests. This destruction is no longer going unnoticed. Governments, scientific organizations, and conservationists and other citizens are deeply concerned about the loss of rain forests.

Chapter 30, Critical Thinking Activity, continued

Better land-use practices, education, and wiser planning may slow deforestation, but experts worry that the rain forests will be virtually gone by the time these changes can be widely implemented.



1. Using an atlas and the map above, name the continents that are in the uneven green belt between the Tropic of Cancer at about latitude $23\frac{1}{2}^{\circ}$ N and the Tropic of Capricorn at about latitude $23\frac{1}{2}^{\circ}$ S.

2. Name at least one country from each continent where tropical rain forests exist.

3. What is the one main gauge for determining whether a forest is a rain forest? Name two attributes that differentiate a *tropical* rain forest from other kinds of forests.

4. What are some of the reasons why tropical rain forests are so important? What is causing them to be destroyed?
