

WHAT IS A TROPICAL RAIN FOREST?

A tropical rain forest isn't just a forest where it rains a lot, though rain is essential. Tropical rain forests get more than 80 inches of rain a year. Some rain forests get more than 200 inches annually, and a few get more than 400 inches!

Tropical rain forests are unique for their special "architecture." Like high-rise apartment towers, rain forests are divided into levels at which different species of plants and animals live. These are the four main layers:

Emergent Layer

- tops of 115- to 250-foot trees
- high, frequently changing temperatures
- not much moisture in air
- strong winds

Canopy Layer

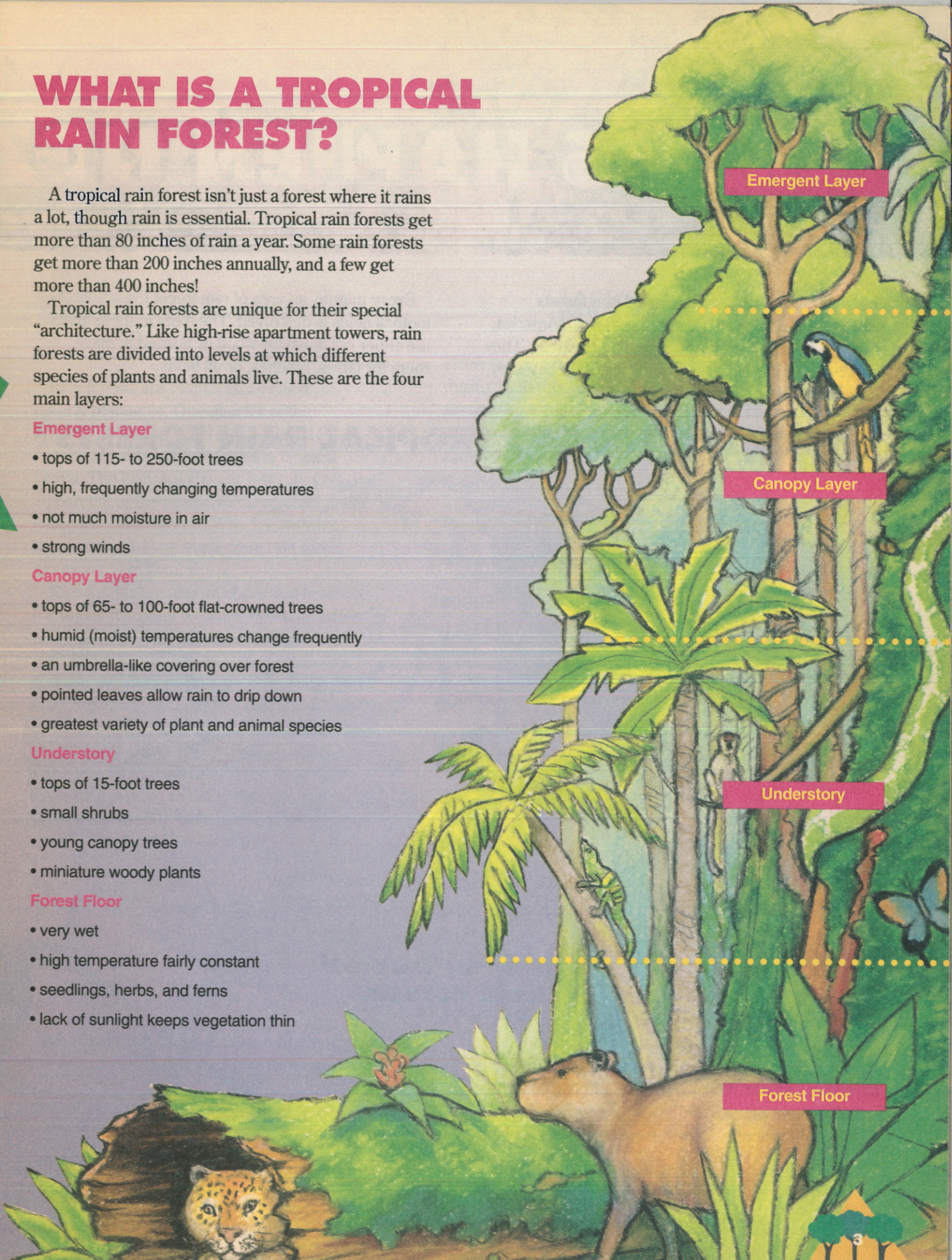
- tops of 65- to 100-foot flat-crowned trees
- humid (moist) temperatures change frequently
- an umbrella-like covering over forest
- pointed leaves allow rain to drip down
- greatest variety of plant and animal species

Understory

- tops of 15-foot trees
- small shrubs
- young canopy trees
- miniature woody plants

Forest Floor

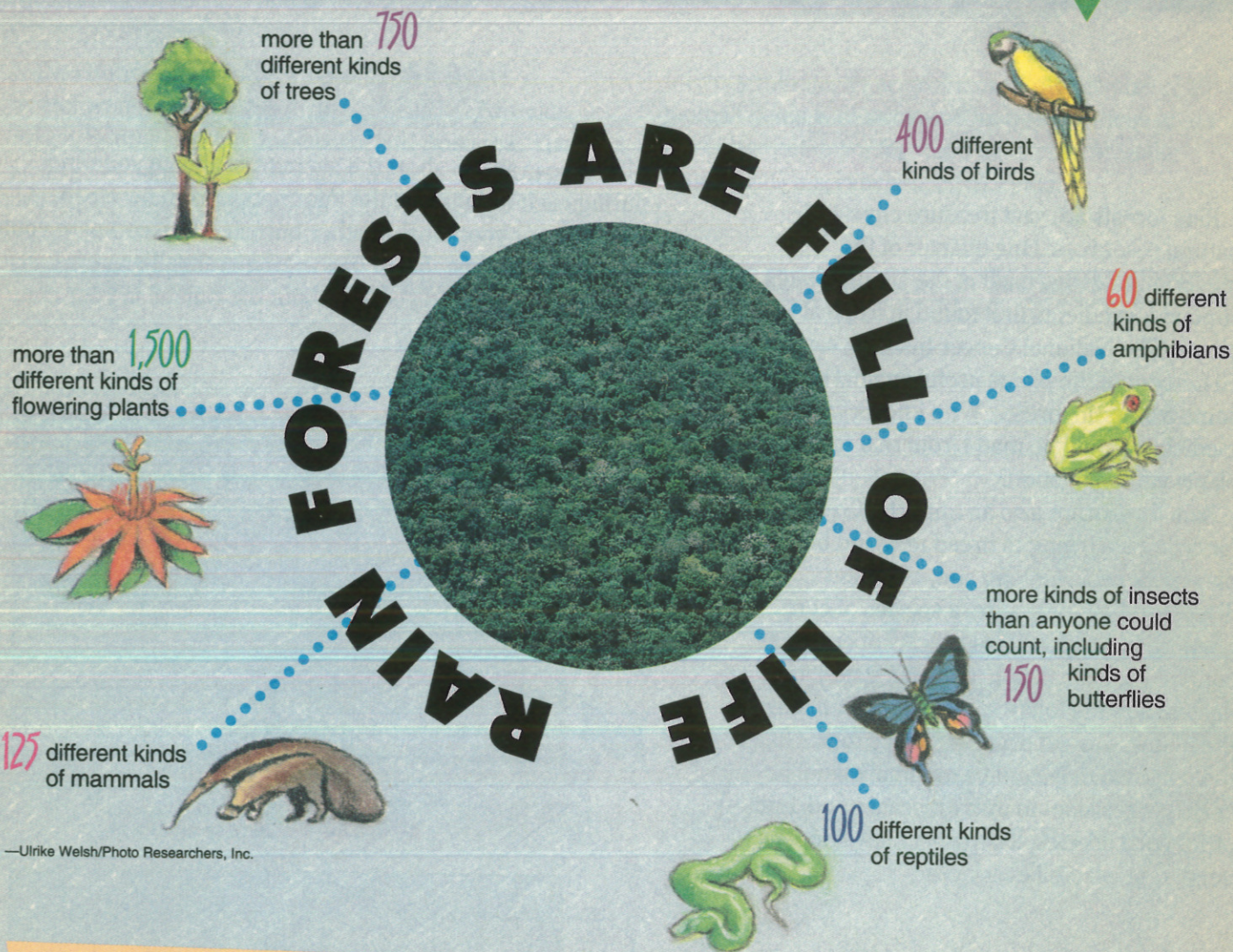
- very wet
- high temperature fairly constant
- seedlings, herbs, and ferns
- lack of sunlight keeps vegetation thin



Rain forests cover only a small part of Earth's land surface, yet more than half the world's wild plant and animal species live there.

Scientists estimate that there are anywhere from 5 million to 50 million species of organisms living in tropical rain forests. So far, they've identified only 1.4 million species.

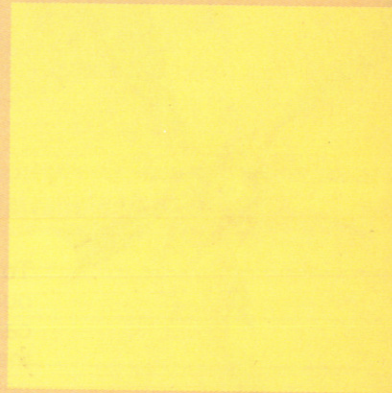
A typical 4-square-mile area of rain forest contains all of these:



—Ulrike Welsh/Photo Researchers, Inc.

TRY THIS

To get an idea of how densely populated rain forests are, try this activity. Use the 2- by 2-inch square to represent 4 square miles of ground. Now fill in the square with dots that represent plants and animals. Use felt pens—green for trees, pink for flowers, red for reptiles, etc. Each dot represents ten different kinds of plants or animals; for example, six blue dots equals 60 kinds of amphibians.



Scale: 1/2 inch = 1 mile



FUN FACTS!

Capybaras, the world's largest rodents, live in Amazon rain forests. They can weigh as much as 150 pounds.



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Anacondas, snakes of the Amazon rain forests, squeeze their prey to death. They can grow to be 38 feet long.



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The black howler monkey was considered sacred by the ancient Mayas of the Yucatán Peninsula. When it howls, it sounds like an angry jaguar.



—Tom McHugh/
Photo Researchers, Inc.

The Amazon River overflows its banks from April to June, covering the bases of many trees in the rain forest. Millions of fish swim around the tree trunks during this time. They eat fruits and seeds that fall from the trees.

A typical Amazon pond is about as big as a tennis court and is likely to contain more different species of fish than do all the rivers of Europe put together!

A WORLD APART

Deep in the Central American rain forests, clinging to the branches of tall trees, lives an unusual type of plant. Called a *bromeliad*, this plant acts like a miniature pond, storing water within a crown of leaves that looks like the top of a pineapple.

Tropical birds sip water from the little pond. Poisonous frogs raise their young there. Tree-dwelling ants make their nests in the shade of the outer leaves and protect the bromeliad by attacking plant-eating bugs.

All told, several hundred species of plants, animals, insects, microbes, and protozoans call bromeliad plants home. Together, these plants and animals form densely populated natural communities typical of life in rain forests.

