



We Depend on Earth's Climate
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Plants Need the Perfect Place

By Jessica Fries-Gaither

What do you do when it's cold outside? Do you put on a sweater? Burrow under the blankets in your bed? Ask your parents to turn up the heat?

And what about when it's hot? Maybe your parents turn on the air conditioning. You probably wear shorts and T-shirts instead of pants and long-sleeved shirts. You might go swimming or eat cold popsicles.

Heat and air conditioning help us when the weather is hot or cold. These are examples of **technology**. Technology is using science to make things that make our life better or easier. Technology helps us live in different environments. People that live in places that are cold need to heat their homes and buildings. People in hot places can use air conditioning to keep homes and buildings cool.

Our actions, or **behaviors**, also help us live in different kinds of environments. We might move into the shade to stay cool. We can put on extra clothes to stay warm.

Technology and behavior help people live in most places on Earth. Some people live on the cold Arctic tundra. Others live in hot and humid rainforests. Still others live in hot and dry deserts. And some of us live in places where temperatures aren't as extreme. We can live almost anywhere!

It's not that simple for plants and animals. Plants and animals are **adapted** to live in specific environments. They need certain temperatures to survive. Plants need the right amounts of rain and sunlight. Plants and animals can't put on a sweater if it is too cold. They can't go into an air-conditioned building if it is too hot. They depend on their environment to be just right for them.

You can learn more about plants and their needs by visiting a **conservatory**. This is a place where plants are grown and displayed. At the Franklin Park Conservatory in Columbus, Ohio, you can see over 400 plants from all over the world. Are you ready to take a little tour?

First, let's walk through the *Himalayan Mountain* room. Plants that live in this environment are adapted to live in cool temperatures. They can grow in rocky soils

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and survive in strong winds. This room is kept cool, just like the plants' natural environment.

Let's leave the Himalayan Mountain room. As soon as you walk into the next room, you know where you are. It's the *tropical rainforest*! The air is hot and humid and huge plants are growing everywhere. These plants need warmer temperatures and lots of rainfall to survive.

Walk through another door and into the *desert*! You notice that while it is still hot, it's not humid. In fact, the air is dry. You see cacti and other plants that are well suited for life with extreme temperatures and little water.

Finally, a short walk takes you to the *Pacific Islands* room. Like the tropical rainforest, this room is warm and humid. Gigantic ferns grow here. So do palm trees and other plants that like rain and warm weather.

These plants can grow in the conservatory because the rooms are like their natural environments. The people who work there keep the rooms at the right temperature. They make sure the plants get the right amount of water. Without their care, the plants wouldn't be able to live and grow in Ohio.

Now you know how plants are adapted to their environments. What about animals? What animals might live in each of these four environments? How would they be adapted to live there?

Glossary

adapted – a way that a living thing is suited for life in its natural environment

behaviors – actions of an animal in response to its environment

conservatory – a place where plants are grown and displayed

technology – using science to make things that make our life easier or better

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