

The Tundra



The word **tundra** means treeless plain.

Living in the harsh Tundra is a challenge! The people have to endure temperatures as drastically cold as -50°F! Luckily, they have amazing ways of adapting to this isolated and freezing habitat.

Challenges of the Tundra

The people who live in this rugged, bitterly cold biome face some serious challenges!

Imagine going to school in temperatures so cold that your eyelashes and eyebrows freeze within seconds.

But that is not the only challenge the people of the tundra face. They must also live in darkness most of the winter. It's dark more than 20 hours a day!

In the summer, the complete opposite happens. The sun never sets. According to Tundra by Peter Benuit, "One summer day at the North Pole lasts six months"!

Dark, light, and cold are tough challenges these strong people must overcome.

Permafrost - ground that is permanently frozen.

How Do They Do It?

The people of the Tundra are very resourceful. To keep their cars from freezing they pull their cars into the garage and plug in their batteries.

They also build their house on stilts. This way, when the **permafrost** thaws, their homes don't move, shift, fall, or slide.

How do they deal with the endless summer sun? Well after round of midnight golf, these crafty people cover their windows with dark shades so they can get some sleep.

The tundra is a remote place. How do they get around? Dogsled, snowmobile, train, car, and a bush plane. 1 in every 61 people have a pilot's license in the arctic. According to This Place Is Cold by Vicki Cobb, "There are more private planes per person there, than any other part of the world."

Way of Life

Many people there hunt and fish for their survival. They hunt reindeer, caribou, & whales. They fish for trout, whitefish, and salmon. Hunting is an important part of their lives.

Unfortunately, Global Warming is a serious threat to their way of life. According to This Place Is Cold, by Vicki Cobb, "Global warming has raised temperatures 35 °F in the past 30 years, more than any other place on earth." This is melting the ice, which means animal habitats are disappearing. For the people of the arctic this means, no food!

With the help of science, global warming can be stopped. The people of the tundra are certainly hoping so!



SURVIVOR: FOREST EDITION

INTRODUCTION

Most people would be shivering on a 40 degree day. But not Tricia Stock, a teacher and hiker, from Superior National Park in Minnesota. She's used to the cold weather in her park and has found many ways to adapt and survive in this biome.



General Information

A forest is a biome filled with trees and they are found throughout the world. For instance there are forests throughout North America, Europe and Asia. In North America there are over 193 million acres of National forests. Because of the wide variety of temperatures and weather both animals and trees have to adapt. Due to the cold winters animals hibernate, migrate, stay active or lay eggs and die to help them survive during the cold winter months. In addition, trees like birch, maple and oak drop their leaves in the fall and use sap in their roots to prevent them from freezing. We will learn even more about how people adapt to survive in the forests biome.

Why do people have to adapt?

The forest is a unique biome and people need to adapt for many reasons. First there are four seasons in a forest biome: winter, spring, summer, and fall. During these seasons the temperature ranges from -20 degrees fahrenheit to 90 degrees fahrenheit. This means that people have to adapt to stay both warm and cool. This is also a problem because during the winter months plants and food will not grow. There are many dangerous animals in a forest like bears, wolves, and coyotes. If you live in this biome you better be prepared for anything and everything!

CONCLUSION

The forest offers many different activities and opportunities because of the changing weather. Living in the forest is a great way to broaden your horizons and try new things.

Shelter, Clothing and Food, OH MY!

People in the forest adapt in many ways. They build their homes in special ways, they dress a certain way, and they eat special foods.

Homes

In a forest a home will need windows with glass and screens. The glass windows will keep your home warm in the winter and the screens will keep your home cool in the summer. Many homes are made out of bricks or aluminum siding. The roof on a forest home should be sloped or slanted with gutters so snow and rain can just slide down the roof without damaging anything. Most homes also have furnaces or air conditioning units to keep the residents comfortable at all times.

Clothing

Forests have four very different seasons. When visiting or living in a forest biome there are many types of clothing that are needed. For the winter months boots, hats, gloves, warm coats, and scarves are a necessity. According to Tricia Stock, a hiker and teacher, "Down filled winter coats are a must. The winter weather will be miserable if you don't have a quality winter coat." For the summer months shorts, sandals, t-shirts, wide brimmed hats, and sunglasses are helpful.

Food

There are many different types of food available to people who live in a forest. In a forest people hunt deer, rabbits, and turkey. There are many fruits and vegetables available like corn, wheat, berries, nuts and mushrooms. In the winter you can also collect maple syrup from maple trees. It would be hard to get bored of the many options for food in the forest.

Culture

People adapt to life in the forest in many ways. It also affects their culture. For example, people often hunt, hike, bird watch, and camp as a hobby. There are festivals to celebrate the trees that give life and the seasons. Stock explained, "In Saint Paul, there is a huge Winter Festival where they have castles made out of ice, snowboarding competitions, and parades." Some jobs are also specific to this biome. If you are an arborist, logger, park ranger, or Christmas tree farmer the forest would be a great place to live. These only some of the ways that culture is impacted in the forest biome.

Class Piece
Mrs. Burt's Class

Students Struggle with Season Change

March 30, 2017 Clarkston, Michigan

Tired of freezing or sweating during recess? Clarkston Elementary Dragons are frustrated with the changing temperatures and their uncertainty of clothing choices.

Chris, a fourth grader, complains, "Tired. I've been wearing shorts and a t-shirt one day, and then the next day, I'm wearing a coat and snow pants. I'm so tired of not knowing what to wear."

"I'm frustrated because when I go outside, I get so hot, or so cold that I can't enjoy my recess. I'm either sitting cold or trying to find shade," states Ella, fourth grader.

Sarah also states, "I do certain activities based on the weather. For example, I can't swing when it's cold because the chain is too cold for my hands."

Kevin claims that the unpredictable weather is causing tension in his household. He asks his mother, Karen, for advice on what to wear. "She goes on the Weather Channel app to check the temperature for the day, but it always turns out to be inaccurate."

Clarkston Dragons hope that predictable weather will be in the near forecast. They are looking forward to soccer, shorts, and no jackets during recess.

News Article Planner

Mr. Rogers

Name _____

_____ # _____ Date _____

General information about forest

- Forests are all over the world: North America, Asia, Europe
- Animals adapt in winter: hibernate, migrate, stay active, some lay eggs and die
- Trees adapt: drop leaves in fall and have sap in roots during the winter to prevent freezing.

Why do people have to adapt in the forest?

- 4 seasons: summer, fall, winter, spring
Temperature ranges from -20 degrees fahrenheit to 90 degrees fahrenheit
- protect yourself from animals: bears, wolves, coyotes
- can't grow food all year round

What are some ways people adapt in the forest?

Shelter

- windows and screens/ bricks/aluminum siding
- sloped roof and gutters
- furnace and air conditioning

Clothing

- hats/gloves/warm coats/boots
- shorts/t-shirts/sandals
- hats/sunglasses
- all season clothes

Food

- deer/rabbits/turkey
- corn/berries/nuts/mushrooms
- maple syrup

How does adaptation impact the culture of people in the _____?

- hunt in forests as sport/hobby
- festivals to celebrate seasons: ice festivals/snow festivals
- jobs: arborist, logger, park ranger, Christmas tree farmer
- trees are an important part of life- celebrations of the life that trees give like Arbor Day where people plant trees
- Hobbies: hiking, bird watching, camping

Other interesting facts related to adaptations in the _____

- Forests have many layers: litter layer, fern layer, shrub layer, understory, canopy
- People use the wood from forests for things like: paper, paper towel, wood for furniture
- Plants on the forest floor have a much shorter lifespan because they don't get much sunlight