

EXTREME ENVIRONMENTS:

WHAT IS A TUNDRA?

A tundra is a vast, frozen plain in the coldest regions of the world. Tundras are commonly located north of the Arctic Circle, or above the timberline on high mountains. Tundras can be found across Russia, Canada, Antarctica, Scandinavia and the United States of America.

WHAT IS THE CLIMATE LIKE IN A TUNDRA?

A tundra is usually very cold. Depending on the time of year, tundras can be covered with varying amounts of snow. The annual rainfall, fog and melted snow in a tundra is between approximately 150 and 250 millilitres per year. The temperature in a tundra can change dramatically between summer and winter. During summer, the average temperature is 12°C. In winter, the temperature can dip below -30°C!

WHAT FLORA AND FAUNA SURVIVE IN A TUNDRA?

In a tundra environment, the ground is consistently alternating between freezing and thawing. This cycle affects the types of plants that can grow and survive there. The range of vegetation includes mosses, lichens, heath, herbs and small shrubs.

Although the climate is very cold, a tundra can provide a habitat for many animals. These animals have special adaptations that allow them to survive the extreme temperatures and conditions. Some animals that live in a tundra include Arctic foxes, lemmings, snowy owls, caribous, bears and harlequin ducks.

WHAT IS A DESERT?

Deserts are large, extremely dry areas of land with sparse vegetation. Deserts are commonly located near the Tropic of Cancer or the Tropic of Capricorn. Some countries around the world with expansive desert environments include Australia, Libya, Mexico and China.

WHAT IS THE CLIMATE LIKE IN A DESERT?

The climate of a desert is usually dry, hot and sunny all year round. The annual rainfall in a desert is less than 250 millilitres per year. The temperature can change dramatically between day and night. During the day, the average temperature is 40°C. The night temperature can reach as low as 0°C.

WHAT FLORA AND FAUNA SURVIVE IN A DESERT?

Due to the hot, dry climate conditions, deserts have very little to no vegetation. The soils in a desert are usually coarse-textured, shallow, rocky or sandy with no subsurface water. This makes it very hard for vegetation to grow and survive. Some of the plant life that has adapted to survive in a desert includes cacti, succulents, bushes and cholla.

Deserts provide a habitat for many insects, reptiles, birds and mammals. The range of animals will change, depending on the region in which the desert is located. Some animals found in a desert may include spiders, snakes, vultures, mice and camels.

**LANDS
OF ICE
AND
SAND**

Name: _____

Date: _____

Extreme Environments: Lands of Ice and Sand

Complete the Venn diagram below to compare the extreme environments of tundras and deserts.

Use the information in the text to add facts to the circles. You could also use a device to conduct some further research of your own.

