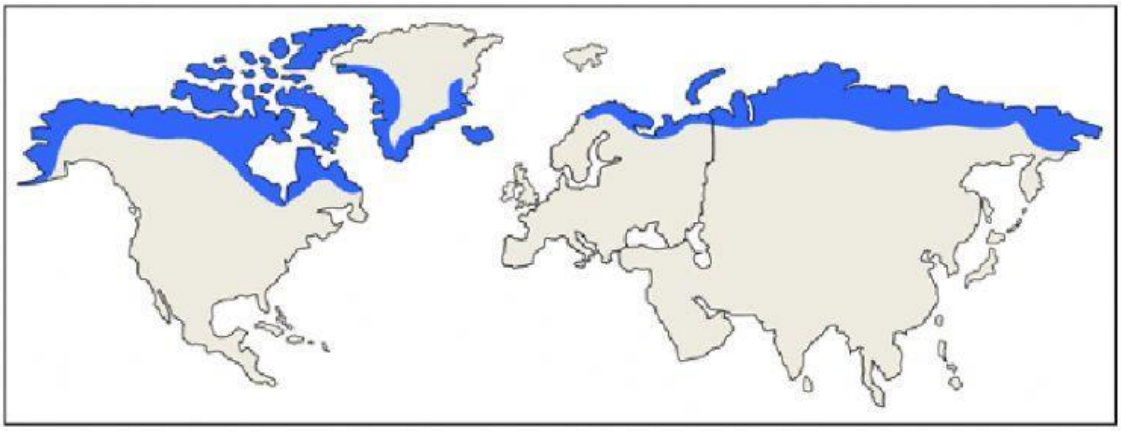
All About the Tundra

The tundra is swept by cold winds. It's very cold and dry. It's covered with snow most of the year. Wonder why there are almost no trees in the tundra? Here's why: permafrost stops trees from growing. This place only gets 6-10 inches of rain or snow a year. That's less than the world's greatest deserts! People who live in the tundra often are reindeer herders. In the summer, the tundra is a field of wildflowers. The tundra temperature is -40 ^{C} to -18 ^{C}. The arctic tundra is located in the **arctic circle**. In the summer, the tundra has long days, usually warm, and the soil defrosts. ☺ But in the winter the days are short ☹. Northern Alaska is a tundra.



LIVEWORKSHEETS

Save the Tundra!

This is why global warming is so bad. Global warming is melting **permafrost**. Permafrost has a lot of carbon that gets released into the air. This creates more global warming. Climate change foxes move up north to the tundra. Foxes and arctic foxes are competing with each other and both of the species are dying. People are **littering** so animals, plants, and water are getting poisoned.



An arctic fox eating litter

LIVEWORKSHEETS

Tundra vs. Desert

The tundra has a lot of differences and similarities with the **desert**. The tundra is usually covered with snow most of the year. The desert rarely ever gets snow. In the desert, it gets cold in the night. They are both really dry. Both biomes don't have a lot of plants and animals. In the winter animals often move away in the tundra. The desert is covered is covered with a lot of sand. Both biomes don't have a lot of water. Most importantly both biomes are very extreme.



A desert sand dune

LIVEWORKSHEETS

Amazing Adaptations

The tundra is a very extreme biome but how do animals and plants survive there? Arctic hares have thick fur that changes from white to brown depending on the seasons. Arctic foxes have **compact** bodies to minimize the area they are exposed to the cold. Polar bears have black skin to absorb the sun's heat. Snowy owls have fully feathered feet. Ptarmigans have feathers literally everywhere. In the winter, the musk ox grows a thick undercoat. The caribou has two layers of insulating fur. Plants in the arctic tundra can do **photosynthesis** in very cold temperatures. Plants create flowers very quickly once summer begins. Plants can grow under a layer of snow. These animals and plants have unique adaptations.



An arctic hare in the winter

LIVEWORKSHEETS

Glossary

Arctic circle- south of the north pole

Permafrost- frozen subsoil

Littering- objects scattered about

Desert- a biome that's very dry and almost has no water

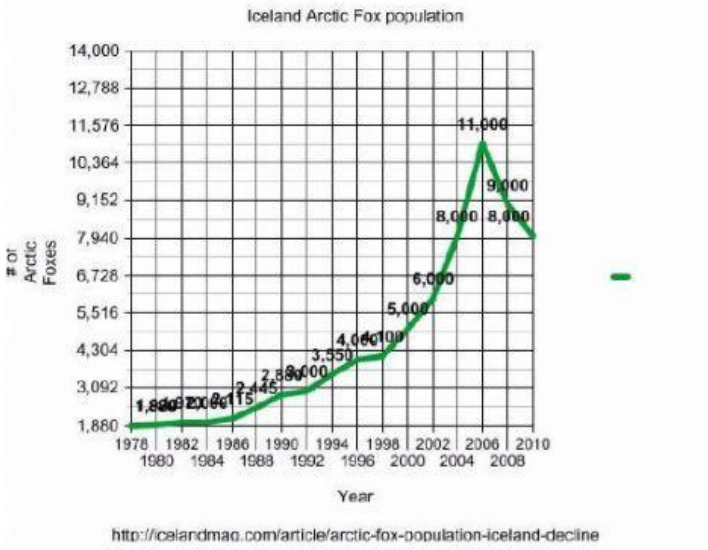
Compact- packed together

Photosynthesis- the process which carbon dioxide, water, and certain inorganic salts are converted into carbohydrate by green plants, algae, and certain bacteria, using energy from the sun and chlorophyll.

LIVEWORKSHEETS

Population of the Arctic Fox

The population of arctic foxes in 1978 was 1,880. In 1992, it was 3,092. In 1998, it was 4,304. In 2002, it was 5,516. In 2004, it was 7,940. In 2006, it was 10,364. In 2008, it was 9,152. In 2010, it was 7,940.



LIVEWORKSHEETS

Quiz

1. Why are there almost no trees in the tundra?

_____

2. What adaptation does the ptarmigan have?

_____

3. What was the population of arctic foxes in 1998?

_____

4. Why are animals, plants, and water getting poisoned?

_____

5. Is the desert cold at night or day?

_____

LIVEWORKSHEETS