

# **The Geography of Russia**

Russia is **HUMONGOUS!** It is the largest country in the world. It is more than twice the size of the United States. It contains a sixth of the earth's land. Russia has three major landscapes. They are taiga, tundra and steppe.

## **Taiga**

The taiga is a huge forest of coniferous (evergreen) trees located only in the Northern Hemisphere. It is found across the northern regions of North America, Europe and Asia.

Much of Russia is covered with taiga. The winters are very cold and long. The temperature can be below freezing for six months. One day in Verkhoyansk, Russia the temperature was minus 90 degrees Fahrenheit. Summer doesn't get much better. It is very short with only 50-100 frost-free days.

The most common coniferous trees found in the taiga are the evergreen spruce, fir and pine. Most coniferous trees are considered "softwood." Over half of the world's resource of softwood comes from Russia.

Coniferous trees are adapted to the cold and short-growing season of the taiga. One adaptation is their conical shape makes snow fall off and prevents loss of branches. A second adaptation is their needle-leaves are skinny so they don't lose much water. This is because there's not much water in the taiga with the earth being so frozen. A third adaptation is coniferous trees have their leaves for a very long time. The trees don't have to use much of their energy to make new leaves when the sun begins to warm up. Lastly, the leaves of coniferous trees are dark green. Dark colors absorb more heat from the sun.

The taiga forest is home to many animals. Here you can find bears, wolves, sables, elk, and a few Siberian tigers. Siberian tigers are an endangered species.

## **Tundra**

Tundra is another word for cold desert. There are two types of tundra in the world. If you were to climb to the top of a tall mountain, you would find **alpine** tundra. The other type of tundra, **Arctic** tundra, can be found around the North Pole. The tundra found in the far north of Russia is arctic.

Like the taiga, tundra winters are **VERY COLD** and summers are very short. Temperatures range from -70 degrees Fahrenheit to

20 degrees Fahrenheit. What makes tundra so unique is its permafrost. Permafrost is permanently frozen earth. Permafrost found in Siberia is 5,250 feet (1,600 meters) thick. More than 50% of Russia has permafrost.

As you can imagine, not much grows in the tundra except for mosses, lichens and low shrubs. During June and July when a bit of thawing happens, brightly colored flowers and green grasses appear.

Animals who live here are adapted to survive cold winters. They breed and raise their young quickly during the summer months. Here you can find reindeer, polar bears, arctic fox and the snowy owl.

## **Steppe**

Steppes are dry area of grasslands with hot summers and cold winters. A steppe is usually found away from an ocean but near a mountain barrier. This means there isn't much humidity in the area. The average rainfall in a steppe is 10 to 30 inches a year. If a steppe got more rain, it would be a forest. If it got less rain, it would be a desert.

Grasses in a steppe can be divided into three groups. Tall grasses are located by a forest. This area gets more rain so the grass can grow to over 4 feet tall. Short grasses are found near a desert. Because this area gets less rain, the grass is only about 1 ½

feet tall. In the mixed grass area, you can find grass that is about 2 to 3 feet high.

Farming can be difficult on a steppe because the weather can be so cold and the soil is poor. Because there are so few trees, it is windy on a steppe. In the summer, fire can be a danger. The grasses catch on fire easily and it spreads quickly!

Animals such as rabbits and antelopes live in the steppe biome. These are grazing animals, and they like the grass.

## **Thinking About It**

1. Imagine you live in one of the three biomes – taiga, steppe, or tundra. Keep a journal for a week that tells about your experiences. What difficulties might you encounter? What animals would you see? What interesting experiences would you have?
2. Create the three major landscapes of Russia. You can paint murals, using real cut-outs of animals and trees or hand drawn ones. To create a 3D effect, glue styrofoam pieces to the backs of the mural elements (trees, animals, lumberjacks, etc.) Let dry and then glue to the mural. Describe the habitat you created.

3. Look for coniferous trees in your area. Take pictures of the ones you find. Use resource materials to identify each tree. Sketch the trees you find and identify.
4. Permafrost doesn't melt but ice cubes do. Predict how long you think it will take for an ice cube to melt. Record your predictions. Then let the melting begin! Record the total time. You could also compare the melting time of one cup of snow versus two and three cups of snow.
5. Create "Tundra Impressions" by using collage materials that inspire thoughts of snow. Try white foam circles, white and light blue tissue paper, iridescent paper confetti and aluminum foil.
6. Have your class record whether they would rather live in the tundra, steppe or taiga. Create a class graph.