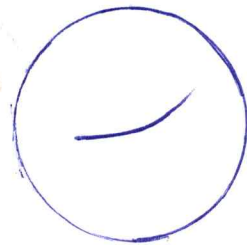


Name: _____



A global environmental type is a large area that has certain landforms, as well as plant and animal communities. Global environmental types are named after the main vegetation type found in the region.

The global environmental types are:

GRASSLANDS

TUNDRA

FORESTS

DESERTS

Global environmental types are determined mainly by their climate, soils, and landforms. The plants and animals in an environmental region are closely linked to their specific environment, as they depend on the other living and non-living things around them.



Some authors use the terms **ecosystems** or **biomes** to mean the same thing as global environmental types. You may see these words used in an atlas or on the Internet. Since environmental types are named after the main vegetation type found in the region, they are almost identical to vegetation regions. If an atlas does not have a separate environmental type or biome map, you can just refer to the vegetation maps.

Global environmental types are classified in different ways depending on the criteria used. This may result in some confusion because different sources may use different names and list a different number of environmental types.

The following outline represents a common classification of major environmental types (biomes) and their respective subcategories:

Forest Biomes

Boreal (Taiga)
Temperate
Tropical

Desert Biomes

Arid
Semi-arid
Coastal
Cold

Grasslands Biomes

Prairie (Temperate)
Steppe
Savannah

Tundra Biomes

Arctic
Alpine



Note: If you have access to the Internet, you can check the University of California Paleontology Museum website for information and descriptions of the world's major biomes at www.ucmp.berkeley.edu/glossary/gloss5/biome/index.html. You can also use a search engine such as www.google.ca/ to search for similar information.

Environmental Types in Manitoba



As mentioned before, some atlases simply show environmental types as vegetation maps. A vegetation map of Manitoba or of Canada may look very detailed if it shows the subcategories of environmental types. In this course, we are mainly concerned with the four major environmental types listed previously (**forest** biomes, **desert** biomes, **grassland** biomes, and **tundra** biomes).

As you can probably guess, the plains or prairie region of Manitoba is part of the Prairie (temperate) Grassland biome. In much of this region, the grassland has been cultivated for agriculture. Most of the Canadian Shield region of Manitoba is part of the Boreal (Taiga) Forest biome. The region around Churchill is part of the Arctic Tundra biome. Thus, three of the four major global environmental types are found in Manitoba.

Since environmental types reflect vegetation and are mainly determined by climate and geography, they also influence the human geography of the region. Temperate grasslands with flat land, rich soils, and favourable climates can support a much larger population than the boreal forest or tundra. Similarly, temperate forests such as those in the Great Lakes–St. Lawrence Lowlands are able to support many people. These regions have a favourable climate, rich soils, and relatively flat land. Most of the temperate forests were cleared long ago for settlement, farming, and industry.

Characteristics of Manitoba Environmental Types			
	Temperate Grasslands	Boreal Forest	Arctic Tundra
Location	Southern Manitoba from the Red River to the Saskatchewan boundary	Most of Manitoba, north of the grasslands, south of the tundra	Narrow strip along coast of Hudson Bay in northern Manitoba
Landforms	Flat plains, some river valleys	Rugged, rocky outcrops; rivers and lakes	Relatively flat, swampy, rocky areas
Vegetation	Grasses, some woodlands in river valleys and hills	Mostly boreal forest, some aspen and mixed forest in the south	Shrubs, mosses, and lichens
Climate	Short, warm summer and long, cool winter; summer precipitation	Short, cool summer and long, cold winter; summer precipitation	Very short, cool summer; long, very cold winter; generally dry
Population Patterns	Moderate rural density, many towns and several cities	A few isolated resource towns, many places not populated	Several coastal communities, otherwise not populated
Economic Activities	Agriculture, some forestry, manufacturing, some oil wells	Forestry, mining, hydro development, tourism, hunting, fishing, and trapping	Some hunting, fishing, and trapping; tourism and shipping port (Churchill)



Manitoba Environmental Types



1. The following map shows the location and extent of environmental types in Manitoba. Look through magazines or do an image search online for pictures of the three environmental types and attach them near the appropriate regions on the map. If you already have photographs of these three environmental types in your personal collection, feel free to use those instead.



Note: Appropriate pictures could include a grassland scene (could show a farming region); a forest scene with coniferous trees, rocky outcrops, and rivers; and a tundra scene with barren landscape and, perhaps, a polar bear.

2. Refer to a population density map of Manitoba in your atlas or from an Internet source and compare it to the map of environmental types in Manitoba.
 - a) Where does most of Manitoba's population reside?
 - b) With respect to the environmental types in Manitoba, why do you think Manitoba's settlement pattern is the way it is?

-
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2. Refer to a population density map of Manitoba in your atlas or from an Internet source and compare it to the map of environmental types in Manitoba.
 - a) Where does most of Manitoba's population reside?

Most of Manitoba's population is located in the southern half of the province, primarily below Lake Manitoba and Lake Winnipeg.
 - b) With respect to the environmental types in Manitoba, why do you think Manitoba's settlement pattern is the way it is?

Most of Manitoba's population is located in the grassland environmental type. This region has flat land, fertile soils, and climatic conditions that are good for farming. The population in the forest environmental type occurs mainly in isolated clusters such as mining, forestry, and hydro towns, as well as in First Nations communities. Many other places have few if any people due to the cold climate, and lack of soils and resources. The small tundra environmental type in Manitoba has several coastal communities, the largest of which is Churchill. It serves as a port and tourism centre. Most of the tundra region has few, if any, people due to the cold, barren landscape and isolated location.

Learning Activity 1.7: Manitoba Environmental Types

Environmental Types in Manitoba

