

page 38

#4. How does the amount of water on Earth influence the climate?

Like Michigan is affected by the lake effect, the warm water makes it snow more. The land on the coast has more clouds than inland areas. The water evaporates and makes clouds so it rains. Places without much water don't have much rain.

Dec 15-9:57 AM

#5 page 38

**World Climates**

Koeppen's Climate Classification  
by FAO - SDRN - Agrometeorology Group - 1997

A	B	C	D	E
Tropical	Dry	Temperate	Cold	Polar

Climates	Tropical	Dry	Temperate	Cold	Polar
Biomes	rain forest grassland	desert	forest grassland	boreal forest (evergreen trees)	tundra

Dec 15-9:58 AM

Climate Zone	Average Temperature	Average Precipitation	Notes
Polar Tundra	long very cold winters, short cool summers	little precipitation	the ground is always frozen, lichens and moss, arctic fox, musk ox, arctic hare
Cold Boreal Forest	hard cold winters, short summers	low precipitation	evergreen trees (conifers), frogs, insects, seed eating birds, beaver, moose, deer, elk
Temperate broadleaf forest grassland	warm & cool seasons warm summers	humid, even precipitation semi dry, winter snow	6 month growing season, broadleaf trees, squirrels, deer, birds, insects, raccoon grasses and shrubs, fertile soils, buffalo, deer, gopher, coyote
Dry desert	Hot	little rain dry	plants with deep roots like cactus, or plants with short lives, coyote, reptiles, meerkats
Tropical rain forest grassland	Hot Hot	heavy rain wet and dry seasons	Thick, tall forests, many kinds of plants, insects, reptiles, primates grasses, some trees, elephants, zebra, lions, cheetahs, leopards

Dec 15-10:02 AM

page 41

Explain 1. What factors determine an area's climate?

The factors that determine climate are amount and the type of precipitation, the amount of sunlight (direct rays or spread out), temperature, and latitude and elevation.

Dec 16-8:32 AM

page 42

2. How can there be snow in parts of a tropical zone?

There could be snow on a mountain in the tropics if the mountain was tall enough to reach the cold part of the atmosphere.

3. What would happen to an organism living in a tropical climate if the temperature got cooler and less precipitation fell?

An organism in a tropical climate might die from being cold or of thirst if the tropical climate changed because tropical animals have tools (body parts or behavior) to help them survive in the warm, wet climate. And they would be able to change fast enough to survive colder and drier conditions.

Dec 16-9:20 AM

page 43

1. Explain how life at the Arctic and Antarctic Polar Regions is different from life at the equator.

2. What is greenhouse warming? How does it effect the Earth?

The greenhouse effect is a natural process where the atmosphere holds in the sun's energy. But humans burning wood, gasoline, and coal add carbon dioxide (pollution) to the air which increases the warming. This could warm the overall climate of Earth, which could melt the Polar ice, and could raise sea water levels higher than what they are now.

Dec 17-8:54 AM