ANSWERS

How the Great Lakes were Formed

1. Describe how the Great Lakes were formed.

They formed as a result of erosion and deposition by a continental glacier. As the ice sheet melted, melt water was trapped in the valleys and lakes formed.

2. In the early stages of formation where did the lakes empty into?

The lakes emptied into the south into the Wabash and Illinois rivers which flowed into the Mississippi.

3. What happened when the lake beds uplifted?

The lake beds uplifted and the lakes shrank. The lakes drained to the northeast through the St. Lawrence River. As a result, Niagara Falls formed.

Ice Ages

1. What is an ice age?

An ice age is a long period of climatic cooling during which the continents are glaciated repeatedly.

2. When was the oldest known ice age? About 800 million years ago.

3. When was the most recent ice age besides today? About 18, 000 years ago.

4. Define what a glacial period is.

A period of cooler climate that is characterized by the advancement of glaciers is called a glacial period.

5. How does that differ from an interglacial period?

An interglacial period is a period of warmer climate that is characterized by the retreat of glaciers.

Glaciers in North America

1. What were the effects of glaciers in North America? Give specific examples!

The water in the glaciers that melted caused the coastlines to extend farther than they do today. Ice covered much of North America.

Glaciation in Eurasia and the southern Hemisphere

1. Where was the center of the continental ice sheet in Europe? Where did it move?

The center of the ice sheet was centered on what is now the Baltic sea. It moved over Germany, Belguium, and the Neatherlands and Eastward.

2. What effect did the ice sheet have in the southern hemisphere?

The Andes mountains and New Zealand were covered by ice fields and alpine glaciers.

Cause of Glaciation

1. Give an example of an event that could cause a glacial period

The movement of tectonic plates can cause changes in global circulation patterns of air and ocean water.

The Milankovitch Theory: Summarize what the theory states about the causes of ice ages.

The theory that cyclical changes in earth’s orbit and in the tilt of earth’s axis occur over thousands of years and cause climactic changes.

Define the following terms and draw a picture

1. Eccentricity 🡪 the shape of Earth’s orbit changes from circular to elongated

2. Tilt (obliquity) 🡪 Earth’s tilt varies between 22.2 degrees and 24.5 degrees



3. Precession 🡪 circular motion that causes the Earth’s axis to change position (wobble of the Earth’s axis)

