

# Ice Ages



*Glacier*

Have you ever heard the phrase "ice age"? It refers to a long period of time when glaciers and ice sheets cover large parts of the Earth. We are actually living in an ice age right now! This ice age began about 2.5 million years ago. Today, large areas of ice cover regions of Antarctica, the Arctic, and Greenland.

The climate changes multiple times during an ice age. It alternates between glacial periods and interglacial periods. During glacial periods of an ice age, temperatures are much colder than they are today. Ice sheets and glaciers expand, covering more of the planet. These periods can last tens of thousands of years. The last glacial period started about 120,000 years ago and ended about 11,500 years ago. During interglacial periods of an ice age, the average global temperature increases. Ice sheets and glaciers get smaller. The climate is warmer and wetter than it is during glacial periods. We are currently living in an interglacial period. It started about 11,500 years ago - when the last glacial period ended. During an ice age, glacial periods generally last much longer than interglacial periods.

Scientists don't completely understand what causes ice ages. But they do believe that one important factor is the amount of light Earth receives from the sun. When the northern part of the world receives less sunlight, temperatures drop, and more water freezes into ice. This can lead to the start of an ice age. When the northern part of the world receives more sunlight,

temperatures rise, and ice sheets melt. This can lead to the end of an ice age. However, there are other factors, too, including changes in the water flow of our oceans. Scientists are working to learn more about how different factors may cause an ice age to begin and end.



CIA World Factbook

The current ice age we're in is not the first the Earth has experienced. At least five major ice ages have occurred throughout Earth's history. The earliest one started over 2 billion years ago!

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Throughout the Earth's history, there have been long periods of time when glaciers and ice sheets cover large parts of the Earth. What are these periods called?
  - A. dark ages
  - B. ice ages
  - C. cold ages
  - D. winter ages
  
2. The text describes and compares the glacial periods and interglacial periods of an ice age. What is one way these periods are different?
  - A. The average global temperature is lower during an interglacial period than a glacial one.
  - B. The average global temperature is higher during an interglacial period than a glacial one.
  - C. Interglacial periods normally last longer than glacial periods.
  - D. More of the Earth is covered by ice sheets during an interglacial period than a glacial one.
  
3. The Earth has undergone many changes throughout its history. What information from the text best supports this statement?
  - A. The Earth may enter an ice age when the northern part of the world receives less sunlight.
  - B. During glacial periods, ice sheets and glaciers cover more of the Earth.
  - C. The Earth has had at least five major ice ages over billions of years.
  - D. Scientists are working to learn more about how different factors may cause an ice age to begin and end.
  
4. Based on information in the text, what can be concluded about the Earth and the sunlight it received 2.5 million years ago?
  - A. The northern part of the Earth was receiving more sunlight.
  - B. The Earth was receiving the same amount of sunlight throughout its different parts.
  - C. The southern part of the Earth was receiving no sunlight.
  - D. The northern part of the Earth was receiving less sunlight.

5. What is the main idea of this text?

- A. Today, large areas of ice cover regions of Antarctica, the Arctic, and Greenland.
- B. Ice ages alternate between glacial and interglacial periods as the Earth's climate changes.
- C. During an ice age, glacial periods generally last much longer than interglacial periods.
- D. One important factor that may cause ice ages is the amount of light Earth receives from the sun.

6. Read the following sentences from the text.

"During glacial periods of an ice age, temperatures are much colder than they are today. Ice sheets and glaciers expand, covering more of the planet."

Based on the text, what does the word "expand" mean?

- A. get bigger
- B. get smaller
- C. get warmer
- D. get lost

7. Choose the answer that best completes this sentence.

Ice ages alternate between two different periods, \_\_\_\_\_ glacial periods and interglacial periods.

- A. namely
- B. on the other hand
- C. for example
- D. meanwhile

**8.** What happens when the northern part of the world receives less sunlight?

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**9.** Describe two ways glacial periods compare to interglacial periods. Use information from the text to support your answer.

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**10.** How might the way the Earth is today compare to the way it was 100,000 years ago? Use information from the text to support your answer.

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