

Ice Ice Baby

The Ice Age was a time in the past when most of the planet was covered with glaciers. A glacier is a huge mass of ice that moves slowly down a mountain or spreads out on an area of land. There are still glaciers in certain parts of the world because they haven't had the chance to melt since the great Ice Age. Most of these glaciers are the valley type. Valley glaciers form when large amounts of snow enter a valley with steep sides. The snow doesn't melt but gets deeper and deeper every year. Over time, pressure combined with melting and refreezing forces the air out of the lower part of the mass of snow. This turns it into solid ice. Then more pressure from the weight of the ice and snow from up above squeezes the mass of ice until it begins to sneak very slowly down the valley. This creeping block of ice is the valley glacier. Alaska is a place with thousands of valley glaciers. Some of them are up to 50 miles long. Another kind of glacier is called continental. Continental glaciers are very large masses of ice that nearly cover whole continents. Greenland and Antarctica are both covered in huge continental glaciers that reach 10,000 feet high in certain places.

1) Why do glaciers still exist at all?

- A) They move too slowly to disappear.
- B) The temperatures around the world are getting colder.
- C) They are located in cold places with no chance to melt.
- D) They are made of packed snow.

2) According to information in the text, which of the following statements is true?

- A) When glaciers melt, a lake is formed.
- B) Alaska is covered by a continental glacier.
- C) There are more continental glaciers than valley glaciers.
- D) Glaciers move very slowly.

3) What is the meaning of the word *block* as it is used in the paragraph?

- A) a large chunk
- B) a wooden cube
- C) a part of a neighborhood
- D) a part of an engine

4) The reader can conclude that continental glaciers get their name because ---

- A) they are so large
- B) they are all located on one continent
- C) they were named for the person who first discovered them
- D) they can cover entire continents

Lava Lands and More

An island is a land mass smaller than a continent that is completely surrounded by water. Continental islands are part of nearby continents even though they look like separate pieces of land. Plates make up the Earth's crust. Some of these plates are under the ocean. Continents sit on top of these plates. One example of a continental island is New Guinea. It looks separate on maps, but it is actually anchored to the same plate as Australia. Water covers up the connection. Most of the islands in the world are oceanic islands. These islands were never connected to any land. Underwater volcanoes create them by erupting. The hot lava cools and hardens. After a time, this hardened lava gets thick enough to appear above the surface of the ocean. One famous example is Hawaii. Hawaii is made out of a lava piled up for thousands of feet. New oceanic islands are always being formed in the deep ocean. They take a long time to move upward. A third type of island is called a barrier island. It is made of soil and sand that has slid from the shore into the water. These small floating islands can often be found in lakes. There are also floating ice islands in the Arctic.

1) Which of the following statements about islands is NOT true?

- A) Islands are completely surrounded by water.
- B) All islands are made from lava.
- C) Islands can be made of ice.
- D) Many islands are created by underwater volcanoes.

2) One example of an oceanic island is ---

- A) New Guinea
- B) Australia
- C) Hawaii
- D) the Arctic

3) Why aren't new oceanic islands able to be seen right away?

- A) No one is looking in the right spot.
- B) They are just specks on top of the water.
- C) They are attached to continents at first.
- D) They take a long time to form in deep water.

4) What happens after underwater volcanoes erupt?

- A) A barrier island begins forming.
- B) The ocean waters stay warm for longer periods of time.
- C) The lava cools and hardens.
- D) A continental island begins forming.