How a Glacier Is Born



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

A glacier is born high in the mountains, where the only precipitation that falls is snow. Precipitation is water that falls from the sky, like rain or snow. Up there, the snow does not melt away each year, and a slight dip in the mountainside catches it. Year after year, the snowflakes pile up into a deep snowpack.

Soon the weight of all that snow presses down on the flakes underneath. The fluffy flakes change into round grains of ice and, eventually, into solid ice. The ice crystals form slowly under pressure, and some individual crystals can grow to the size of a football. Air trapped between the snowflakes is frozen into the ice as well.

At last, the ice becomes too heavy for the dip to hold against gravity, and it begins to flow slowly downhill. Now that it is moving, it is a glacier. Like a river, it follows the easiest path down the mountain. Rocks caught in its lower layers grind away at the solid rock beneath it like stone tools, and in time the ice carves deep valleys shaped like the letter U.

In Glacier Bay National Park and Preserve, some glaciers flow all the way down to the sea. These are called tidewater glaciers. Blocks of ice up to 200 feet high can break loose and crash into the water, which is called calving. As the icebergs melt, they pop and sizzle while ancient air escapes.

1. **Where is a glacier born?**

2. **What does “calving” mean, and which words help you tell?**

3. **Tell in order how snowflakes become a glacier.**

4. **Why do you think icebergs pop and sizzle as they melt? Use the passage.**

Answer key

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1. Where is a glacier born?
   High in the mountains, where the only precipitation is snow and the snow does not melt away each year.

2. What does “calving” mean, and which words help you tell?
   Blocks of ice breaking loose from a glacier and crashing into the sea. The words just before “which is called calving” describe it.

3. Tell in order how snowflakes become a glacier.
   Snowflakes pile up into a deep snowpack. Its weight presses the flakes into round grains of ice, then solid ice. When the ice is too heavy for the dip to hold, it flows downhill and becomes a glacier.

4. Why do you think icebergs pop and sizzle as they melt? Use the passage.
   Sample answer: air was trapped between the snowflakes and frozen into the ice long ago, so when the ice melts, the air escapes with a pop.