The Story of the Lake Missoula Floods

By Gretchen Schulz

Common Core State Standards

This text is relevant to several Common Core State Standards, including the following:

CCSS.ELA-Literacy.RI.4.3

Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

CCSS.ELA-Literacy.RI.4.10

By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Two million years ago, during the Pleistocene age, mastodons and saber-toothed cats roamed the lands of North America. Teratorn birds soared across the skies, and Giant Beavers lived near lakes and swamps.

It was during the Pleistocene that the most recent ice age occurred. Global temperatures dropped, and glaciers formed when the ice and snow of winter remained frozen year round. As more and more layers of snow accumulated, it became compacted into massive frozen sheets, creating the glaciers. These glaciers often formed at high elevations and slowly moved downhill.

In the area that is now western Montana, a moving glacier blocked the mouth of the Clark Fork River, forming a dam. Water filled up behind the ice sheet until it formed a massive lake that was as big as Lake Erie and Lake Ontario combined.

Lake Missoula continued to grow, exerting more and more pressure on the glacial dam. Eventually, water lifted the frozen sheet. As the ice became buoyant, water flooded underneath.

A river with water flowing at thirty to fifty miles an hour rushed across the land. Today, scientists estimate that it took less than a week for Lake Missoula to drain.

In many areas, the flood of water swept away topsoil, leaving a ragged, rocky surface. The “scabland” created by these glacial floods covers much of eastern Washington. Unlike the fertile areas that surround the scablands, these rough and rocky areas have proven difficult to farm on.

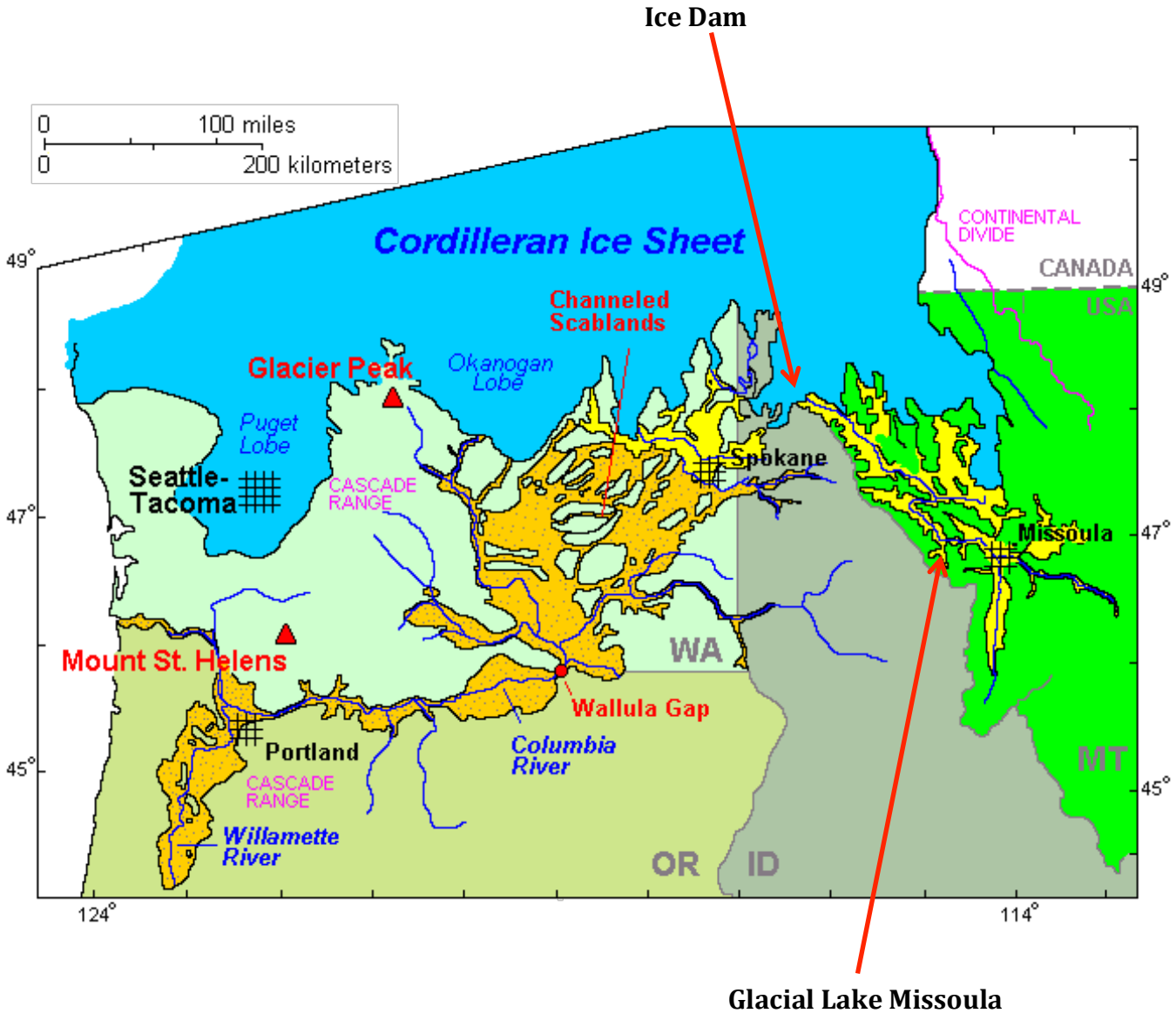
The river also cut a deep gorge where the Columbia River still flows today. It created steep canyons and rocky cliffs like the one in the picture below.

After traveling 430 miles, the river finally flowed into the Pacific Ocean.

Then, the process began again. Scientists believe that Lake Missoula filled and flooded dozens of times over the course of several millennia, perhaps as often as every fifty years.

Can you find:

- The scablands of eastern Washington?
- The Columbia River and the Pacific Ocean?



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Works Referenced

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