

How Big Is That?

Sometime between 16,000 and 12,000 years ago, a massive flood in the Pacific Northwest carved out major landforms across much of Washington State and part of northern Oregon. The flood covered almost 42,000 square kilometers and at its crest stood 244 meters high. But how far and high is that? In this activity you will look at different ways to understand these measurements.

Procedure

Part I

- 1 Prepare a five-column table by writing the following measurement categories at the top of each column:
 - length (meters/kilometers)
 - height/depth (meters/kilometers)
 - area (square meters/kilometers)
 - volume (cubic meters/kilometers)
 - speed (kilometers per hour)
- 2 Carefully review the items on your “Comparison Items List” handout. Complete the table by writing each item on its own row under the column heading to which it best belongs.
- 3 Read the description about the Ice Age flood provided on your handout called “The Spokane Flood.” Highlight any dimensions that fit any of the measurement categories listed in your table.
- 4 After you have highlighted all the dimensions in the reading, your teacher will assign some of these measurements to your team to compare to the size of other items.
- 5 Convert the measurements assigned to your team so that they are more meaningful. Select an item from the comparison item table you prepared in step 1.

Perform the calculations necessary to make your new measurement representative of the measurement in the description about the flood.

- 6 For each assigned measurement, record the comparison item you chose and describe why you think the new measurement is more meaningful than the original.
- 7 When you are done with your calculations, compare your results with another team that was working with the same measurement set as yours. Work with other team members to prepare an explanation of both teams’ thinking about items for which you chose different new measurements. Report your results to the class.

Part II

- 1 Your teacher will help your class develop a list of new comparison items that you can use to represent the measurements found in the flood description reading.
- 2 Use print and Internet resources to research the measurements of the class comparison items so that you can calculate new representations of the measurements within the flood reading. Share your results with class members.

