

Forging a strong appreciation of aboriginal culture and sense of identity / self creates strong math-to-self or math-to-world connections. Students become engaged in math when the context is meaningful and integrated with other topic areas. Learning about making canoes and their importance in aboriginal cultures provides an opportunity to make connections in both areas and deepens students' understanding in both math and aboriginal culture.

Canoe Story Problem

A canoe has a perimeter of 24m. What shape would you make your design to fit the most people in? Which design would make the best canoe?

There are many different types of canoes, some made for ocean travel, some made for rivers, and some for regular daily travel. This canoe in the picture above is called I-Hos and it belongs to the K'ómoks First Nation. I-Hos is a double headed sea serpent. I also know of a famous Haida canoe called Loo-Taas and its name means wave eater.



I-Hos Canoe belonging to K'ómoks First Nation

Content/Background

We actually went outside with a 12m piece of string and made a canoe by holding hands and measured what a 12m perimeter canoe might look like with our bodies. We imagined the perimeter to be the gunnel measurements. Then ignored the canoe shape we made all the different size rectangles we could (1x5, 2x4, 3x3) and given a 1 metre space around us how many people would fit in each of those 'canoe' sizes. The 1x5 would fit 5 people, the 2x4 would fit 8 people, and the 3x3 would fit 9 people. So we determined that while the 3x3 would fit the most people it was not the best canoe shape, so the 2x4 was the best canoe. When discussing the effect of shape on area (with a given perimeter), the more square the dimensions, the larger the area. The more rectangular (small width) the smaller the area. For example a 3 x 3 rectangle has a larger area than the 1 x 5 area.

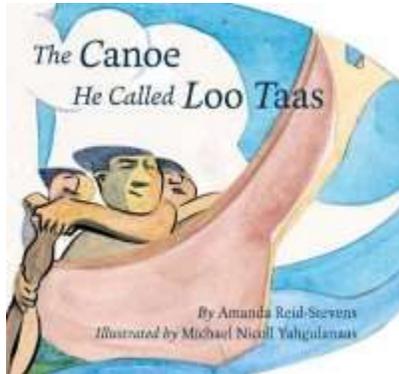


I-Hos Canoe

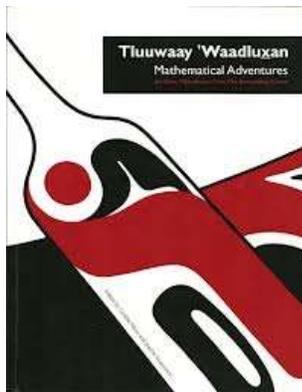
A member of the K'omoks First Nation helping to carve out the hollow part of a canoe. It was built around 1993.

Loo-Taas:

The following book is written by Bill Reid's daughter. Bill Reid built the canoe called Loo-Taas and helped rebuild the knowledge of canoe building in the Haida culture.



For more knowledge about Haida canoes see the following book (including the story of The First Canoe, the canoe house in Haida Gwaii, making a model canoe:



Steaming a Canoe

Canoes were steamed to make the canoe wider in the middle. A great video on steaming a canoe follows, (search for Nu-chah-nuulth Steaming a Canoe if the link below doesn't work)

<http://www.youtube.com/watch?v=8qpwwzldgg>

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