DESIGN AND CONSTRUCTION

Before you try this activity at home, visit Hayley Little Moccasin and her friends Tommy and Marie in the Build a Tipi activity at www.wonderville.ca

Tipis weren't the only unique construction projects of Aboriginal people. Canoes have been designed, built and used by First Nations people for at least 9,000 years! Canoe designs use the scientific principles of buoyancy (the upward force of the water on the boat which allows it to float) and drag (the force pushing against the forward motion of the boat causing it to slow down).

Using the following materials and a plastic tub, sink or bath tub, build and test the boats you construct.

Materials

- 15 cm x 15 cm squares of aluminium foil
- pennies – as many as you can find!
- plasticine or clay
- empty, clean milk cartons
- straws

Using any or all of the materials above, construct boats to float in a tub of water. Add pennies to each boat and record the number of pennies each can hold without sinking. Keep a record of your boats in the following chart. Add more rows as needed.

A sketch of the boat	The materials you used	The maximum number of pennies the boat held	Can the boat move easily through the water?