

BUILD A MINIATURE BULLBOAT



Native Americans living in the Great Plains, including the Mandan and Hidatsa tribes of the upper Missouri River area, weren't just hunters. They also fished in the many rivers that wind through the Plains. Some of these rivers, like the Missouri and Knife Rivers, are so big that Native Americans needed boats to cross them. It should be no surprise that bison were used in making these boats, called bullboats.

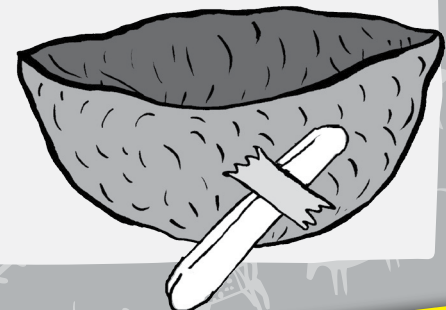
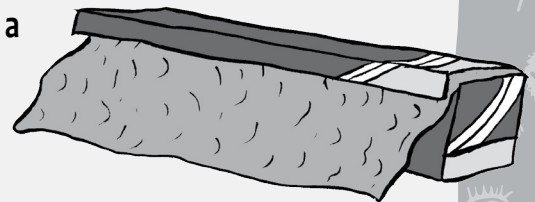
The round frame of the boat was made of willow branches tied together with buffalo hair. Buffalo hide was stretched over the frame. People sat in the boat and paddled with large sticks or used their hands. To tackle the challenge of steering a saucer-shaped boat, a rudder from a piece of wood attached to a buffalo tail did the trick.

SUPPLIES

- aluminum foil
- small bowl
- Popsicle or craft sticks
- tape

A bullboat only weighed about 30 pounds but it was sturdy and could carry heavy loads of supplies up and down rivers. Made with a fresh buffalo hide dried over a wooden frame, it was waterproof and strong enough to paddle through choppy water, even when laden down with firewood or passengers. The hair of the hide on the outside of the boat helped to keep it from spinning, but adding a rudder enabled the boat to move in a straight line.

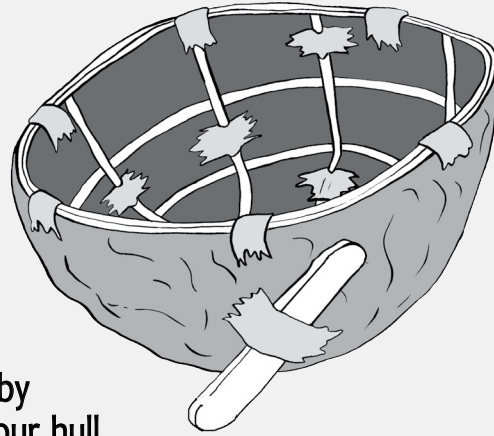
- 1 To build your bullboat's hull, take a piece of aluminum foil and place a bowl in its center. Wrap the foil up the sides of the bowl. Add two or three more layers to make it sturdy, and then remove the bowl. You'll have a hollow, rounded hull in the shape of a Native American bullboat.



ACTIVITY!

2 Now, try to make your boat go in a straight line across a bathtub or sink full of water by blowing on it. You may be able to make it go straight, but the boat will probably spin in circles.

3 To get your boat to travel in a straight line without spinning in circles, you'll need to add a rudder. You can do this by taping a Popsicle stick to one side of your hull. Keep testing your boat and try attaching the Popsicle stick at different angles or at different depths until the boat moves straight through the water.



TRY THIS

Now try making a bullboat with a frame. You can use pipe cleaners, drinking straws, or strips cut from a file folder. Using the bowl again, press two or three layers of foil against the inside to line the bowl with foil. Make three circles from your framing material to fit around the inside of the bowl at the bottom, middle, and top. Tape the circles into place. Then crisscross the strips to line the bowl and tape them into place. To make the boat even more sturdy, cover the frame with another layer of foil. Remove the bullboat from the bowl and smooth the foil at the top. When you add a rudder can your bullboat carry a load of supplies across a body of water?

DID YOU KNOW?
When the Europeans arrived in North America, there were 60 million bison freely roaming the Great Plains. Now there are only about 200,000 of these animals living in protected areas and ranches.