

Canoeing Lesson Plan

Objectives:

1. To learn safety around the water and boats as evidenced by listing three safety rules to observe while canoeing.
2. To learn parts of a canoe and paddle as evidenced by accurately naming the basic parts.
3. To learn at least three different strokes used to propel canoes as evidenced by demonstrating proper technique during practice time.
4. To develop better coordination and teamwork as evidenced by demonstrating the ability to steer the canoe to a specific location.
5. To understand the physics behind canoeing. To describe and understand speed, force, motion, mass, and gravity in context of canoeing

Key Terms:

1. **Force** = A push or a pull that can cause a change in the motion of an object.
2. **Speed** = The rate per unit time at which an object moves.
3. **Motion** = The change in position of an object in a certain amount of time
4. **Bow** = The front of the boat.
5. **Stern** = The back of the boat.
6. **Keel** = The seam down the middle of the bottom of the boat.
7. **Gunwales** = The rim on the sides of the boats.
8. **Blade** = The larger part of the paddle that pushes the water.

Equipment: life jackets, paddles, canoes, safety equipment (including whistle)

Pre-Class Procedures:

1. Check that the boat house and boating area is accessible.
2. Pick up the boat house and equipment keys.

Procedures & Activities:

1. **Tell a Story (10min)**
 - Start with the Native American Canoe Story “The Great Flood”. You can read it to them, recite it from memory or have them act it out.
2. **Talk about the history of boats (5min)**
 - a. Native American kayaks, canoes and other boats.
 - b. European development of boats, why they were not like canoes.
3. **Discuss safety rules to use in and near the water (5min)**
 - Discuss safety rules to use while boating.
 - a. Always wear a lifejacket.
 - b. Do not stand up in a canoe.
 - c. Do not rock the boat, have races, splash each other or ram into other boats.
 - d. Always watch the weather (avoid lightning and darkness).
 - e. Stay together as a group.
 - f. Pass out life jackets and demonstrate how to correctly put them on.
4. **Getting into the Canoe (10min)**
 - Pass out paddles and go over the parts of the paddle (handle, shaft and blade). Demonstrate and practice on shore or the dock: sweep or "C" stroke and hold. Explain how to get the most force out of the stroke (longer stroke and amount of

blade in the water). Have them practice on the dock.

- Go over the “physics of canoeing”. Explain the terms force, speed, motion. They should understand the greater the force (canoe stroke), the faster the canoe will move. Additionally greater weight (personal, canoe, and luggage), the more force (paddling) required.
 - Where does all the energy come from that makes the canoe move through the water? It come from the food we eat being converted into energy and burned by our muscles.
 - Go over getting the canoe in and out of the water.
 - Practice boarding and disembarking safely from canoe at the beach. Refer to the center of the boat as a tight rope that they will be walking on.
5. **Out on the Water (30min)**
- Divide into groups; set boundaries and signals. Take canoes out and enjoy exploring the lake.
 - Making sure that everyone stays together and close to shore (there are more animals and the wind won’t blow them around as bad).

Post-Class Procedures:

1. Put equipment back in order. Lock the boat house and boats.
2. Turn in the keys.

Standards:**Indiana****History****4th Grade**

- 4.1.1 Identify and compare the major early cultures that existed in the region that became Indiana prior to contact with Europeans.

Science**4th Grade**

- 4.1.8 Recognize and explain that any invention may lead to other inventions.
- 4.6.2 Show that something may not work as well, or at all, if a part of it is missing, broken, worn out, mismatched, or incorrectly connected.
- 4.6.1 Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.

5th Grade

- 5.3.11 Investigate and describe that changes in speed* or direction of motion of an object are caused by forces*. Understand that the greater the force, the greater the change in motion and the more massive an object, the less effect a given force will have.

* speed: the rate per unit time at which an object moves

* force: a push or a pull that can cause a change in the motion* of an object

* motion: the change in position of an object in a certain amount of time

6th Grade

- 6.4.13 Give examples of how human beings use technology to match or exceed many of the abilities of other species.

Michigan**6th Grade**

- P.EN.06.11 Identify kinetic or potential energy in everyday situations (for example: stretched rubber band, objects in motion, ball on a hill, food energy).

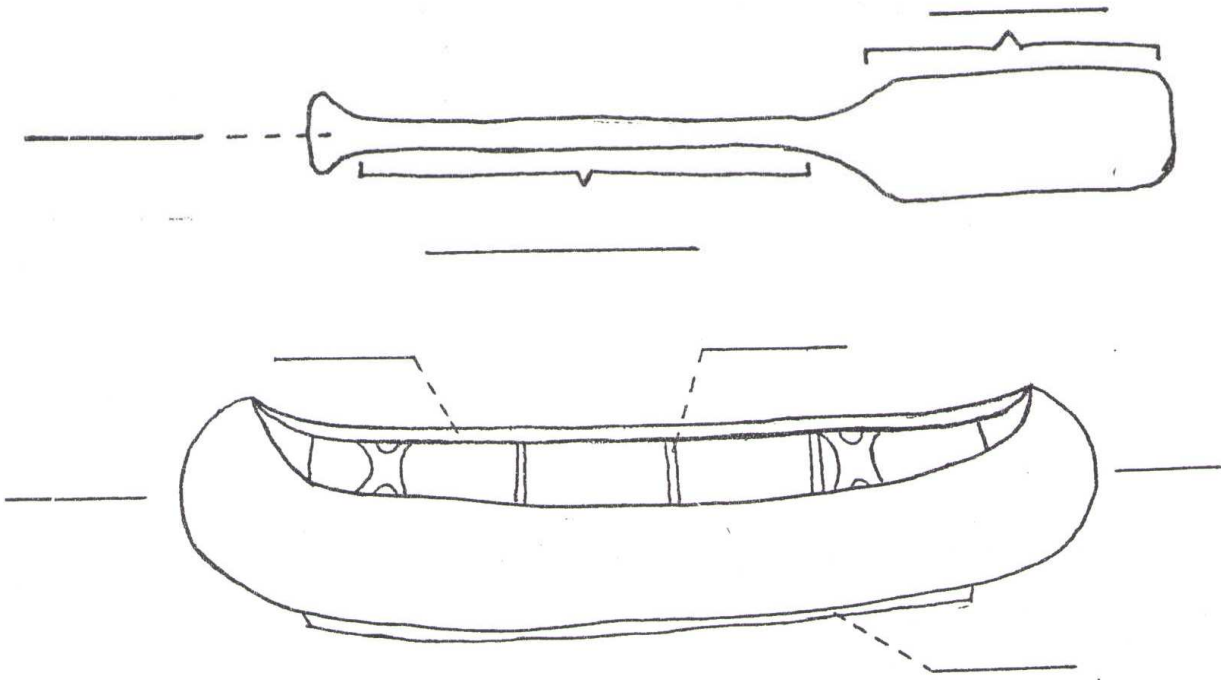
Canoeing Review Sheet

1. Name three safety rules to follow when canoeing.

2. Who were the first people to use canoes? _____

3. Label the parts of the canoe and paddle below.

Handle Shaft Blade Keel Bow Stern Thwart Gunwhales



4. The hardest part of canoeing was _____

5. Describe force and how it applies to canoeing. _____

THE GREAT FLOOD.

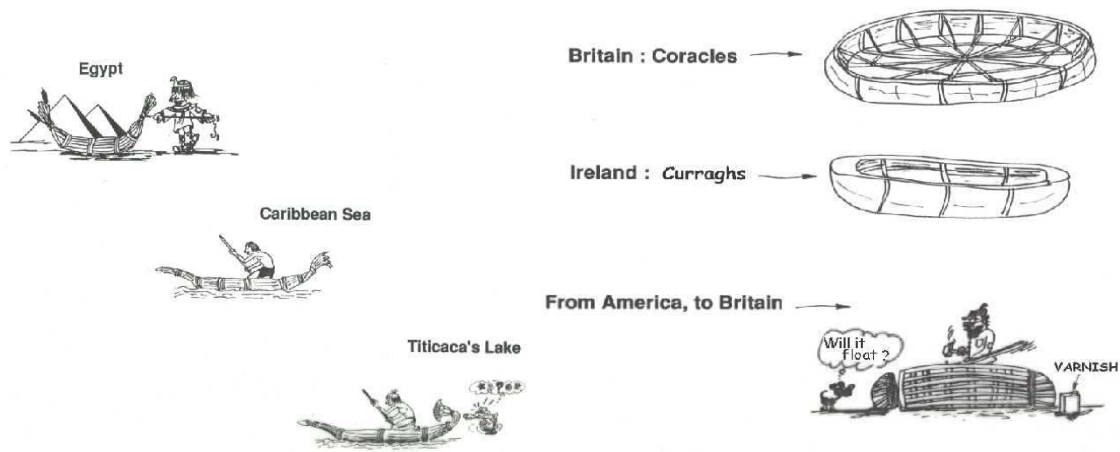
One very remarkable character reported in Native American legends, dimly seen through the mist of untold centuries, is Kwi-wi-sens Nenaw-bo-zhoo, meaning, "The greatest clown-boy in the world." When he became a man, he could wield his war-club with force enough to shatter in pieces the largest pine-tree. His hunting-dog was a monstrous black wolf, as large as a full-grown buffalo, with long, soft hair, and eyes that shone in the night like the moon. The deity of the sea was so extremely jealous of the dog, that he was determined to kill him. So he appeared before him in the form of a deer; and as the dog rushed to seize him, he was grasped by the deity and drowned in the depths of the sea.

When the seer-clown learned of the fate of his noble dog, he sought to take revenge upon the sea-god. So he went at once to the place where he was accustomed to come on land with his monster servants, and there concealed himself among the tall rushes until the "caravan of the deep" came ashore. When they had fallen fast asleep, he drew his giant bow and shot a poisoned arrow that pierced the water-god through the heart. He rolled into the sea, and cried, "Revenge! Revenge!" Then all the assembled monsters of the deep rushed headlong after the slayer of their king. The prophet fled before the outraged creatures who hurled mountains of water at him. He continued to flee before the raging flood, but could find no dry land. In sore despair he then called upon the God of Heaven to save him, when there appeared before him a great canoe, in which were pairs of all kinds of land-beasts and birds, being rowed by a most beautiful maiden, who let down a rope and drew him up into the boat.

The flood raged on; but he was safe. When he had floated on the water many days, he said to Waw-jashk (the musk-rat), "You are the best diver among all the animal creation. Go down to the bottom and bring me up some earth, out of which I will create a new world; for we cannot much longer live on the face of the deep."

Down plunged the musk-rat; he soon came to the surface lifeless, and was pulled into the boat, whereupon the prophet blew into *his* mouth, and he became alive again. In his paw, however, was found a small quantity of earth, which the prophet rolled into a small ball, and tied to the neck of Ka-ke-gi (the raven), saying, "Go thou, and fly to and fro over the surface of the deep, that dry land may appear." The raven did so; the waters rolled away; the world resumed its former shape.

Canoe History



- On ancient Egyptian drawings appears crafts moved with paddles. Egyptians, in the pyramids age, navigated the Nile waters aboard narrow boats built with bunches of rush, tied with ropes and leather straps.
- At the peninsula of Yucatan (Central America), in Chichen Itzá, another representation of canoes appears in a 1150 year-old BC mural, and at the ruins of Tikal, in the heart of Guatemala, there are bones of 700 BC with engravings that represent canoes.
- In the Caribbean coasts, when Christopher Columbus arrived to the American Continent, the Indigenous approached to the three Colon's ships, with boats made from a single piece. A big trunk of tree was hollowed with fire, and the tips were sharpened for a better water cutting.
- The Indians of North America used the canoes as their medium of life, for the transport, hunting, fishing and the war. In their origins this type of crafts were built with hollow trunks of trees or skins of animals, previously treated. Later were made with wood and bones framework, covered with birch-bark skins and animals leathers.
- In Britain, primitive crafts were developed in slightly different way, and called "Coracles". These were made almost round, with a skin covering over a wattle framework.
- In Ireland, the "Curraghs" were the forerunners of much modern canoe building methods, although the shape is practically the same of some of the primitive canoes.
- The current kayak, descend from the "boat of men" (Ka-i-ak) from the Eskimos. Built with bones and skins of animals, practically covered in its entirety and whose maximum sophistication is reached in Greenland. Fundamentally used to hunt and to fish. Was much more streamlined and built more for single occupancy.
- Local Pottawatomie Indians used canoes for transportation, hunting and gathering rice for food.

Taken from: http://www.geocities.com/xabier_sanjuan_a/kayaking.html#HISTORY