

## Marine Transportation Day 1

# THE MIGHTY BOAT



# SITUATION

When an object is placed in the water, it pushes some water out of its way. The water that was moved tried to go back to its original spot, but the object is still there. A "pushing battle" takes place and this causes the object to float. Since the object and water want to take up the same space, the object floats on top of the water unless it becomes too heavy, and water gets on top. If water gets on top, the object will sink.



# PROBLEM

Your team must use the principles of floating objects to create a boat. You may only use the materials provided. The design is completely up to you, and the best design will be the boat that can hold the most weight without tipping over or sinking.



# OBJECTIVES

Students will use creativity and problem solving to build a boat that will hold the most weight possible.



# MATERIALS

- 4 straws per group
- 1 foot of aluminum foil per group
- 1 sheet of paper per group
- 6 inches of tape per group



# REQUIREMENTS

Your grade will be based on the following performance:

Your boat must float for at least 30 seconds to be considered for judging.

- A = boat floats and holds 1 pound of weight
- B = boat floats and holds 8 ounces of weight
- C = boat floats and holds 4 ounces of weight
- D = boat floats for 30 seconds
- F = no boat presented

