

# SuperSTAR – Boat Challenge



## **Material List:**

Sheet of aluminum foil for each group (*provided by SuperSTAR committee*)

1-2 tubs or dishpans of water for floating boats (*science rooms could use sinks*)

Towels to place under tubs of water (*optional*)

Bag of pennies (*approximately 100*)

Slip of paper for each group (*see page 2 OR use sticky notes to avoid printing*)

## **Getting Started**

**7:40-7:45** Introduction, group organization, and distribution of materials

**Introduction** – “Today’s SuperSTAR is going to involve a challenge in which you are going to work together in a small group to design and construct foil boats. The only materials you can use are the sheet of aluminum foil and your imagination. The object of the challenge is to create a boat that will float. An added challenge is to design the boat to hold pennies. The boat that holds the most pennies in each SuperSTAR class will earn a place on the Boat Challenge Wall of Fame”.

**Groups** - Divide your SuperSTAR students into groups of 2-3 with no more than one grade level representative in a group if possible. Probably best to have groups in mind in advance to save time.

**Materials:** Distribute materials, but have students wait to start the boat building until each group is prepared.

## **Building the Boats**

**7:45-7:50** Provide 5 minutes for the groups to build their boats. Have teams draw numbers to determine the order to test out the boat designs in the water.

## **Boat Challenge**

**7:50 – 8:05** Have each team place their boat in the water and add pennies to the boat until it begins to sink, but does not become submerged. Once a boat starts taking on water, that team’s trial is done. Count the pennies as they are being added to the boat or after the completion of each team’s trial (this is the most time effective method). Upon each group competing in the challenge, collect slips of paper, or sticky notes, and record the number of pennies the boat held.

## **Follow Up & Extension Activities**

If time permits, discuss features of the boats that held the most pennies.

\*Please email Mrs. Maddox the following information for the *winning group* from each

SuperSTAR class:

1. First and last names
2. Total number of pennies held by the winning boat

