

# Penny Boat Challenge!

*Are you ready to take on the penny boat challenge!? Water, water everywhere! You need to design a boat out of simple tin foil, and see how many pennies it can hold before it sinks. How many pennies will it take to make your boat sink? Learn about simple physics while you test out your engineering skills!*

## Materials Needed:

- **Tin Foil** (approximately 8" squares to build two boats)
- **Large Bowl** (float the boat on water, deep enough for boat to sink)
- **Pennies** (40+ to stack in boat until it sinks)
- **Water** (in bowl to float the boat)

## Scientific Method:

**Step 1:** \_\_\_\_\_

Write any observations that you see about your boat, the pennies, and the bowl of water.

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**Step 2:** \_\_\_\_\_

What questions do you have about the experiment?

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**Step 3:** \_\_\_\_\_

How many pennies do you think it will take to sink your boat? Why?

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**Step 4:** \_\_\_\_\_

- Build a boat with one of the 8" tin foil pieces
- Put 15 pennies on the other 8" tin foil piece, ball it up (pennies inside), and place it in the water
  - What happened? \_\_\_\_\_
- Place your boat on the water and slowly add pennies into your boat  
*(you might have to reform the boat so the boat doesn't tip over)*
- Keep adding pennies until your boat fully sinks into the water

**Step 5:** \_\_\_\_\_ & \_\_\_\_\_

What happened to the pennies in the ball of foil? \_\_\_\_\_

How many pennies did it take to sink your boat? \_\_\_\_\_

Why do you think the boat could hold more pennies than the ball of foil?

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**Step 6:** \_\_\_\_\_

Make sure you share your data with the teacher/group and check out what happened to other people's boats! We always like to compare our results with others, just in case something different happens.