

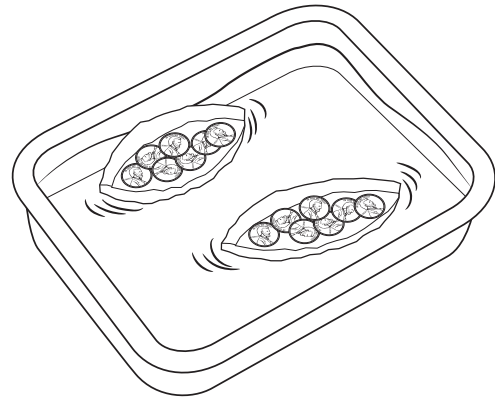
# Sink the Boats!

## Objectives

- Children will make predictions.
- Children will engage in design and building.

## Materials Needed

- "STEM Worksheet" reproducible
- Bin
- Scissors
- Boat pictures
- Foil
- Pennies
- Water
- Towel (optional)



## Getting Started

- Print out the reproducible.
- Cut out pieces of foil in various sizes. The child will use these pieces to make different boats.
- Fill the bin with water and place the bin on a table. For easier cleanup, place the bin on top of a towel.
- Gather pictures of various boats from magazines or the Internet.

## Activity

1. Show the child pictures of different boats. Point out the shapes.
2. Tell the child that he or she will be making a boat today—out of foil!
3. Show the child the foil and explain that it can be formed to hold its shape. Remind the child that the foil tears easily, so he or she should handle it gently.
4. Have the child use the "STEM Worksheet" to plan his or her boat design first. This will help the child think through the design before trying it out.
5. Invite the child to build the foil boat and test it by placing it in the water to see if it floats. If it doesn't, encourage the child to try again and remind him or her to learn from the previous design when creating a new one.
6. Once the boat floats, it's time for the next challenge—how many pennies can the child place on the boat before it sinks?
7. Have the child predict how many pennies he or she thinks can be piled into the boat before it sinks. Then invite him or her to test it out! Was the child correct?
8. If the boat did not hold as many pennies as the child thought, invite the child to create another boat, making adjustments based on what the child learned from the first boat.

## Extended Learning

For more hands-on STEM activities that include a popular children's story, plus raft-building materials, try our [Gingerbread Man Problem Solving STEM Kit](#).

# STEM Worksheet

Project

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Plan



Create



Test



Did it work?

  
yes  
no