

# STEM ACTIVITY

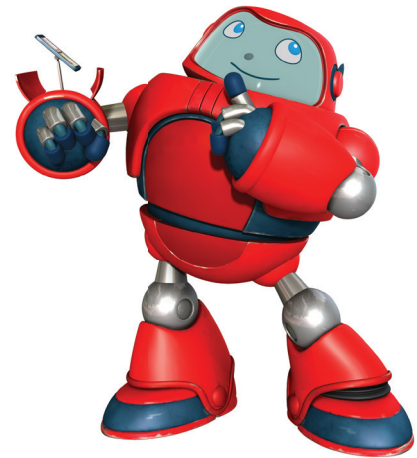
# BAPTIZED!

Total Time: Approx. 30 minutes  
In-Class Time: 20 minutes

## You will need:

- Pennies—20 to 40 per student
- Aluminum foil—enough for each student to build a boat
- Pencils
- Paper
- Large tub or container of water

**NOTE:** Make your own boat in advance to test out and to show the students.



**STEP 1: TEACH:** In the video, we watched the disciples draw a large catch of fish onto their boats. Those fish were heavy! Today, we will each build a boat and test how much weight they will hold.

**STEP 2:** Gather the children around you. Demonstrate how to build an aluminum foil boat.

**STEP 3:** Give a paper and pencil to each student and have them draw a boat plan.

**STEP 4:** Give each student a large piece of aluminum foil and have them begin building.

**STEP 5:** When boats are built, bring students to the tub of water. Allow them to place their boats in the water and begin adding a single penny at a time.

## EXPLAINING THE SCIENCE:

**Displacement and buoyancy:** Displacement happens when an object is put into a fluid. The fluid must move out of the way, or be displaced, to give way to the object. Have you noticed the water goes up when you sit in your tub and sinks down when you get out? That is displacement.

Buoyancy is the ability of an object, like your boat, to float. How much it will float depends on the amount of water an object displaces and how much density it has. Density is how solid an object is. Take a rock, for example. A rock is very dense and will only sink. The boats you made are not very dense. They have space inside. This causes them to float.