

# Sink or Float?



**Suggested Grade Level:** Third Grade

**Concept:** Recording data, learning what sinks and floats

**Materials:**

- Water
- Big clear bin (that can hold water)
- Smaller clear water-holding containers (for each table)
- Varying objects to measure sinking or floating—I'm using; chocolate egg, button, crayon, rubber band, paper clip, cotton ball, apple, ice cube, play dough, tweezers, penny, q-tip, rock, key, rubber band, Troll doll, plastic egg, balloon, index card, tea bag, comb, eraser, foam cup, plastic knife
- Can of colored soda and diet colored soda
- Float or sink prediction worksheets
- Float or sink results worksheets

**Measurable Objects:**

- Students will make predictions about what sinks or floats
- Students will record data

**Anticipatory Set:**

Show the class your container of water and tell them you're going to test some objects to see if they sink or float. Tell them they're going to get to guess if their objects will sink or float and then they'll get to test each object at their table.

**Instructional Input:**

**Prior Knowledge:** Sink, float, predict or guess, writing

**Procedure:**

1. Show them your container of water and tell them how to properly use the water, not splashing or playing in it.
2. Show them a worksheet like they'll be using and tell them what each column is for.



3. Take an object that you know will float and one that will sink (ones they're not using) and show them how to predict, then put them in the water and show them how to record their data.
4. Pass out the worksheets.
5. Pass out the water containers and objects.
6. Have them test their objects and record their information.
7. After everyone's tested all their objects, pass out t-chart sheets and have them complete those sheets using their first sheets for reference.
8. After everyone's finished, have them share what floated and sank.
9. Show them the colored soda and diet colored soda and ask if they think they'll float or sink.
10. Put them in the water—the colored soda will sink and the diet colored soda will float.
11. Tell them it's because the diet colored soda has no sugar but the colored soda does, and it's heavier than the artificial sweetener.
12. Collect the worksheets.
13. Have the students write a journal entry about why they think things float and sink based on what they saw in the experiment.

### **Modeling:**

1. Show/explain proper "water etiquette" - not splashing or spilling or playing in the water.
2. Pick one object that you know sinks and one that floats (ones that you're not giving the kids) and using the sheet they're going to use or on the board show them how to predict whether they will float or sink.
3. Put the object in the water and tell the class whether it sank or floated, then record it under 1st try, then do it again for 2nd try.

### **Check for Understanding:**

1. Pass out prediction worksheets.
2. Ask the students which column they will put their marks in for predictions, 1st try and 2nd try.

### **Guided Practice:**

1. Pass out the objects (one for each person in the group,



- coordinating with objects on the sheet) to each group and give them their container of water.
2. Once each group has their objects, pass out the water containers and have them test whether the objects sink or float and remind them to record it on their sheets, writing the name of the object they're testing in the 1st column, whether they think it will sink or float in the 2nd column, and then their 2 trials in the 3rd and 4th columns.
  3. After everyone has tried their objects twice, pass out the t-chart sheets and tell them that they're going to use their first sheets to complete this sheet.

### **Independent Practice:**

Have students complete the t-chart, writing on either side of the t-chart the names of the objects that sank or floated.

### **Closure:**

Have children get to where they can see the big container and show them the two cans of soda. Put them in the water (the diet colored soda will float but the colored soda will sink) Tell them why (because the colored soda is heavier due to sugar, the diet colored soda has no sugar, but instead has artificial sweetener which is lighter).

### **Evaluation:**

Students will complete a t-chart (see sheet) using their data collection to write which items sank and which floated. They will also turn in their data/prediction sheets for participation credit. They will write a journal entry about why things sank or floated based on what they saw during the experiment.

*Lesson plan compiled by Laura Johnson, an Earth Team Volunteer and Early Childhood Education student at Missouri State University, Springfield, MO.*

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## Sink or Float Learning Centers

**Writing Center**—Make a miniature word wall or list with words that were or would be used in a situation of floating and sinking, like water, sink, float, guess, try, think, and then all the objects that were used. When applicable, a picture of the object (all but guess, try think, etc.) could be placed by the word for easier recognition. Put out lots of writing paper so that students can practice writing the words or can write what happened when they did it or something they'd like to try if they did it again.

**Art Center**—Put out drawing paper, markers, and pencils. Tell the students to color the bottom half of the paper blue to represent the water and then to draw objects that floated on top half and the objects that sank on the bottom half. They can also use the media for other artistic projects they can come up with on their own that relate to the sink or float lesson.

**Science Center**— Use the same big bin used in the experiment and fill it half full with water. Place blank data collection worksheets at the station, along with small water proof items from around the classroom (that were not used during the class experiment.) Also provide some paper towels. This station will need to be closely monitored, but have the students regulate their own experiments with things that float or sink using the provided objects.

Name \_\_\_\_\_

### Will it Sink or Float?

Write the name of the objects you're testing, whether you think it will sink or float, and for each trial, whether it sank or floated.

Object	Guess	1st Try	2nd Try

Name \_\_\_\_\_

**Did it Sink or Float?**

Write the name of each object in the correct column, according whether it sank or floated.

**Sink**

**Float**

<b>Sink</b>	<b>Float</b>