

**Grade Level:** 5

**Topic:** Water Density

**Title:** *Floating and Sinking*

**Objectives/Goals:**

1. Students will create a Science notebook to use to record their observations, procedures, questions.
2. Students brainstorm why they think things will sink or float.
3. Students observe an object that both floats and sinks and record observations and ideas about how this could happen in their notebooks.

**Standards:**

5.2.4

[View Resource\(s\)](#)

Keep a notebook to record observations and be able to distinguish inferences from actual observations.

5.2.8

[View Resource\(s\)](#)

Recognize when and describe that comparisons might not be accurate because some of the conditions are not kept the same.

5.5.7

[View Resource\(s\)](#)

Explain that predictions can be based on what is known about the past, assuming that conditions are similar.

**Materials:**

- 2 plastic tubes
- 1 box of Kosher salt
- 2 white acrylic beads
- paper to cover the plastic tubes

Adapted from *STC Floating and Sinking*, Lesson 1, pp. 13-17  
Scott Foresman, 4<sup>th</sup> grade, Chapter 12, page 348

## Activities:

1. Distribute all materials
2. Teacher direction: Read the objectives of the lesson
3. Notebook entries:
  - a. Name, date and time
  - b. Give the student the question to be investigated  
“What makes the bead float or sink in each liquid?”
4. Begin Teacher demonstration.
  - a. Fill two plastic tubes  $\frac{3}{4}$  full of water
  - b. Choose one tube and place enough salt into the tube to make the acrylic bead float.
  - c. Cover both tubes with paper so that the top of the paper is level to the water. (steps 4a through 4c should be prepared before lesson).
  - d. Gently place one bead into container with salt water.
  - e. Drop second bead into water without salt.
  - f. Students will record in their Science notebooks what they observed.
  - g. Students will list in Science notebook at least three explanations for what they observed.
  - h. On a flipchart, record students’ observations.
  - i. Students will disprove all theories that were recorded until the correct answer is found.
  - j. If the correct answer is not found, teacher will provide clues to lead the students to the answer.
  - k. Students write an answer to the question, “What makes an object float or sink?”

### Extension:

Teacher will provide several tubes filled with clear liquids other than water. Students will predict in Science notebooks what will happen to the bead. Demonstrate what happens to acrylic bead when placed in tubes.

## Assessment:

FOSS Scoring Guide Rubric