

Sink and Float Lesson Plan

Grades 2 and 3

Materials

For each pair of students

- sink and float items in a baggie or a dish
- cork, rubber band, crayon, Popsicle® stick, penny, button, drinking straw, 2 small paper clips, seashell, pink granite rock.
- water container

For each student

- pencil
- recording paper for sink and float prediction and results
- large bent paperclip (holder of small paperclip)

Other materials

- ping pong ball
- golf ball
- water in a container for floating balls

Students sitting on the floor

Quickly review the three forms water takes -- solid, liquid, gas -- and the four parts of the Water Cycle. Use motions for the names of the parts of the cycle.

Third grade only -- if time. Show the pictures of water and have them say which part of the water cycle the picture shows.

Discuss how much of the earth is covered by water (about 70%). Talk about how much water is part of our bodies and how we can tell it has lots of water in it (tears, blood, saliva, mucous, urine).

I ask for a volunteer to come up to the front. The volunteer holds a golf ball and a ping pong ball. We discuss how they are different (color, rough/smooth, weight) and how they are similar (size, shape). The students predict whether each ball will sink or float. Then I put the balls in the water. We discuss what helps things float (weight, shape, etc., plus surface tension) reviewing the clay experiment from the fall (shape made a difference in floating).

Hands-on lesson at tables

Going through each of 10 items one at a time as a class, students will predict and write their prediction of sink or float on the paper provided. No discussion about the items during this part since each student will decide their own prediction.

Students will test each item in the water and write down whether it sank or floated.

Showing hands, the students as a class go through each item and show if the item sank or floated for them. Some items like crayons or buttons will sometimes float and sometimes sink. Discuss.

I tell the students that one item that sank in the experiment, the paperclip, can float. I demonstrate using a bent large paperclip to slowly lower the small paperclip in the water. It floats.

The students get a large, bent paperclip holder and try to get their small paperclip to float. Some students may be able to get the paperclip to float using just their finger or a Popsicle® stick. This is great fun for the students. We talk about how surface tension holds up the paperclip when it is put into the water evenly and carefully.

Closing

Review some methods students can use to conserve water (be a water saver -- water off when brushing teeth, 5 minutes or less showers, low water in the bathtub, and watch for dripping faucets). If time, discuss how water comes to our homes, schools, and businesses.