



FAMILY SCIENCE

SINK OR SWIM!

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Source: [Free Elementary Science Activities for Educators
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SINK OR SWIM!

Topic: Relative Density

Activity: Observe four microecosystems.

Location: Outside

Materials

- Materials from outside
- Small tub of water
- A small stone (sad face optional)
- Timing device

Preparation

- Make sure you have access to a safe outdoor area.
- Gather materials.

Overview

Day	Activity Overview	Time Needed
1	Float or Sink Investigation	30 minutes
2	Build a Raft	20 minutes
3	Choice Activity	20 minutes

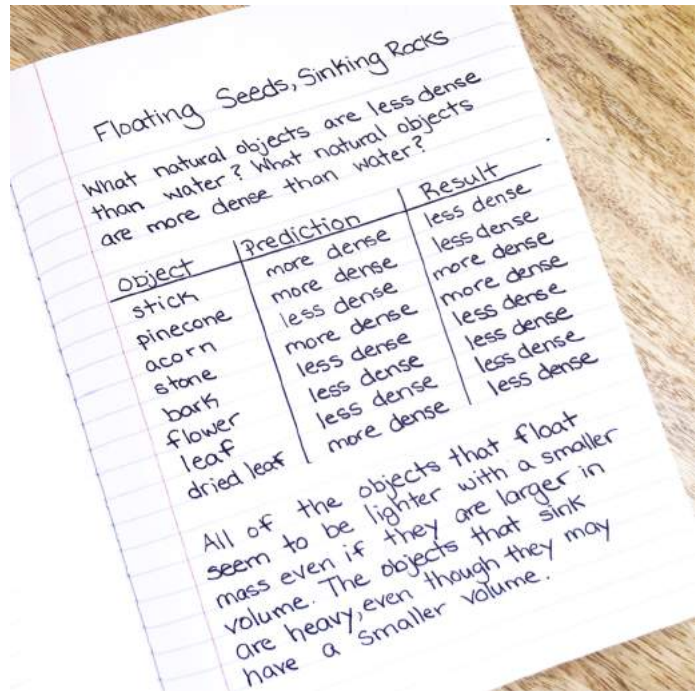


DAY 1: FLOATING SEEDS, SINKING ROCKS

Let's answer the following questions: What natural objects sink in water? What natural objects float in water?

1. Collect 10 items outside. Have a small tub of water available.
2. Record the names of the items and your predictions.

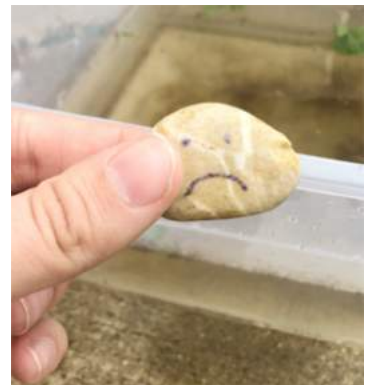
NOTE: You might use the terms “more dense” and “less dense” than water or you might simply write “sink” or “float.” If an object sinks in water, it is more dense than water. If it floats in water, it is less dense than water. You might discuss buoyancy and use the terms “buoyant” and “not buoyant.”



2. Test each object and record the results.
3. Discuss the questions below. Then choose one to write about more in depth.
 - What results surprised you?
 - What do the objects that float seem to have in common?
 - What do the objects that sink seem to have in common?
4. Keep your materials for the next day's activity!

DAY 2: BUILD A RAFT

1. Gather materials. You will need a small tub filled halfway with water, access to an outdoor area, a stone (sad face optional), and a timing device.
2. Your Challenge: A sad stone landed on a deserted island and wants to go back home! Build a raft for the stone using ONLY natural materials. The raft must hold the stone and float for 1 minute.
3. Discuss the questions below.
 - What materials floated easily in water?
 - Which materials surprisingly sank than water?
 - Was it better to use more materials or fewer materials?



DAY 3: CHOICE ACTIVITY

Choose one of the following activities:

1. Watch the video and write about what you learned.
<https://bit.ly/shipfloatvideo>
2. Complete the interactive activity and write about what you learned.
<https://bit.ly/aquabotlab>
3. Draw a detailed, labeled diagram of your raft. Explain how it worked.

SINK OR SWIM!

Which natural materials float in water?
Which natural materials sink in water?

OBJECT	PREDICTION	ACTUAL RESULT