



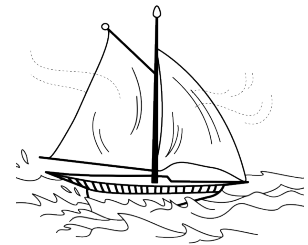
TRANSPORTATION

BIG IDEA

Children are curious about travel. Children explore and describe the many ways to move people and things from place to place. They describe and compare characteristics of several types of transportation.

Content objective(s):

The child will identify boats as a type of transportation that travels on water, and he/she will identify boat parts and their purposes. The child will orally discuss which objects will float and which objects will sink.



Materials needed:

- ◆ Pictures of sailboat, ship, row boat, motor boat (Handout 1)—copy and cut out
- ◆ Chart with pictures of rock, spoons, cup, sponge (Handout 2)
- ◆ Container to fill with water
- ◆ Small rock, styrofoam cup, sponge, metal spoon, wooden spoon, or piece of wood
- ◆ Other small items that can be found around the house to demonstrate float/sink

Lesson vocabulary:

- ◆ float—flotar
- ◆ sink—hundir
- ◆ sail—navegar
- ◆ row—remar
- ◆ paddle—remo
- ◆ ship—barco
- ◆ motor—motor
- ◆ captain—capitán

Texas Prekindergarten Guidelines (Revised) domains addressed:

Language and Communication:

II.D.2 Child demonstrates understanding of terms used in the instructional language of the classroom.

II.D.5. Child uses category labels to understand how the words/objects relate to each other.

Emergent Literacy, Reading:

III.C.3. Child produces the correct sounds for at least 10 letters.

Mathematics:

V.E.2. Child collects data and organizes it in a graphic representation.

Science:

VI.A.1. Child describes, observes, and investigates properties and characteristics of common objects.

Activities:

1. The home educator models and demonstrates for the parent.

Prompt a review of types of transportation by asking the child to tell you about some of the kinds of transportation he/she has traveled in or seen in the past few days.



Use pictures from Handout 1 to introduce boats as a mode of transportation. Say,

Boats are a special type of transportation that moves on the water to carry people and things from place to place. Have you seen a boat on the water? (Pause) Tell me about it. (Pause) There are many different types of boats. There are sailboats, large boats called ships, rowboats, and motorboats. Ships are the biggest ones. Ships have a special person who drives (or steers) the ship, called a captain.

Sailboats travel using the wind. The wind blows into the sail and makes the boat move. You can move the sail around to go a different direction. A rowboat moves when a person inside the boat pushes the water with paddles. Ships and motorboats use motors to make them go—like trucks and cars do. They also have steering wheels to steer in the direction the captain wants to go.

How do you think a boat can travel on the water? (Pause) Why doesn't a boat full of people or cargo sink, or fall to the bottom of the water? (Pause) Let's do an experiment to find out which things sink and which things float, or stay on top of the water.



Introduce the chart (Handout 2). Draw the parent's/child's attention to the top of the chart; read and explain the words "Sink" and "Float." Also discuss the pictures of objects on the left side of the page. Say,

We will put each of these objects in the water to see whether it sinks or floats. If the object floats we will place an X under the word "Float" on the chart. "Float" begins with the sound /f/. Do you know which letter makes the /f/ sound? (Pause) Right! F. Where is the word "Float"?

If the object sinks we will place an X under the word "Sink" on the chart. "Sink" begins with the sound /s/. The letter "S" says /s/. Can you find the word "Sink"?



Fill the container half way with water and place objects next to it. Say,

We will start by choosing an item. (Select one of the items.) Do you think this item will float on top of the water or sink to the bottom of the water? (Pause) (Put the item in the water.) What happened—did it float or sink? (Pause) Would this make a good boat to carry people and things from place to place?

If the object floats, ask,

What would it need to make it go? (e.g., motor, sail, or paddles) Next to the picture, where should we put the X—under the word "Sink" or under the word "Float"?

Assist the child in placing an X next to the item and under the correct word. Repeat the process using a second object that will have the opposite outcome (sink versus float). Discuss why one of the items floated and other one sank. Ask,

 *Why do you think the _____ (e.g., rock or cup) sank/floated?*

2. The parent works with the child.

The parent should continue the work with the child by experimenting with two more objects. The parent should encourage the child to name each object and guess whether the object will sink or float. They should then experiment to determine whether it would make a good boat (i.e., does it sink or float?). After the test, the parent should help the child mark an X under the appropriate word on the chart.

3. The child works with the parent's help.

The child should experiment with the remaining object. The parent or home educator should help the child name the object but the child should guess whether the object will sink or float. The child should complete the chart for the item with which he/she experiments.

4. The child works independently as the parent and home educator watch for learning.

The child is able to identify objects that sink and float correctly and can make a determination about whether it would make a good boat. The child should be able to name parts of a boat that make it go and change directions.

5. The home educator summarizes the lesson.

Finish by reviewing the content objective and talking about what the family learned today.

Follow-up questions to deepen the child's thinking:



1. *If a boat has paddles, what type of boat is it?*
2. *If a boat has sails, what type of boat is it?*
3. *If a boat has an engine, what type of boat could it be?*
4. *Which type of boat do you think can go faster?*
5. *If you were going on a long trip, which type of boat would you like to take? (Pause) Why?*

Ways to extend the lesson concepts:



1. Help the child make a boat from aluminum foil by forming it into the shape of a boat. Allow the child to float it in the bathtub, sink, or a puddle outside. Discuss whether the boat sinks or floats.



2. Teach the child the song, “Row, Row, Row Your Boat.”

Row, row, row your boat,
Gently down the stream,
Merrily, merrily, merrily, merrily,
Life is but a dream.



3. Visit the public library and check out *Busy Boats*, by Tony Mitton; *Sail Away*, by Janet Buell; or *Toy Boat*, by Randal de Seve. Read the book aloud to the child.

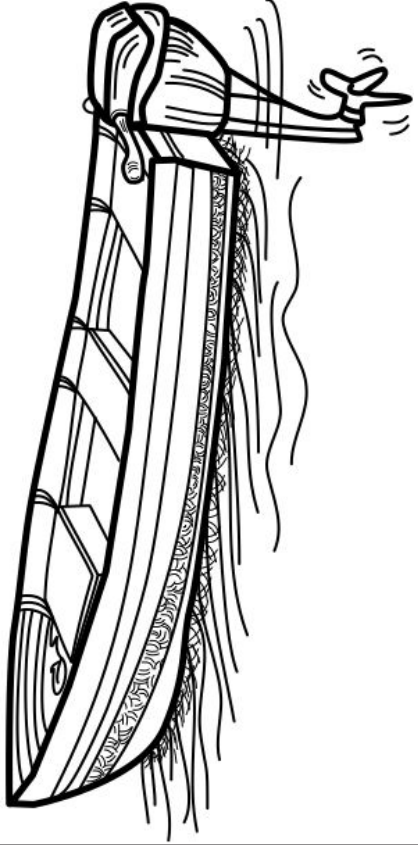
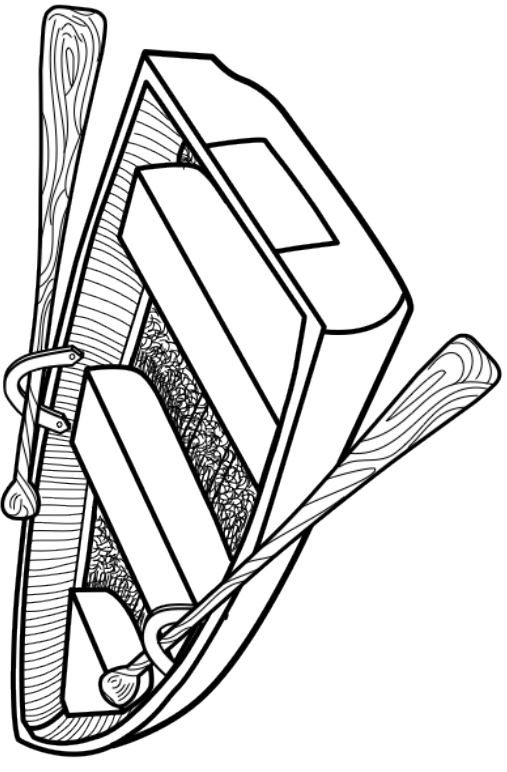
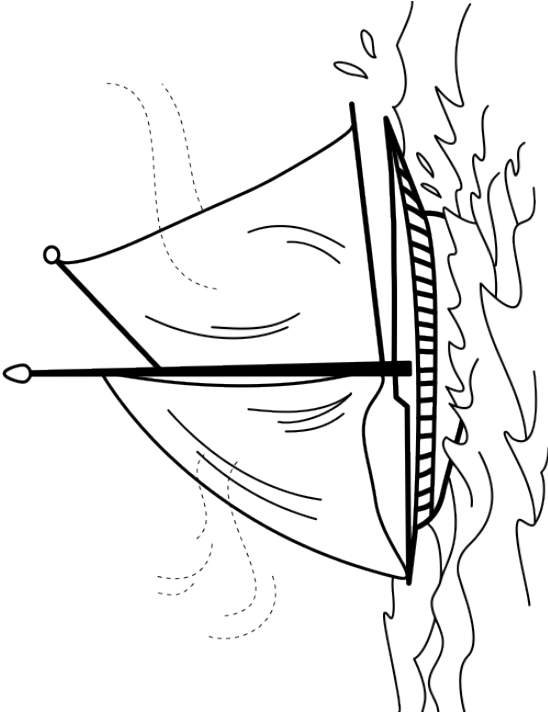
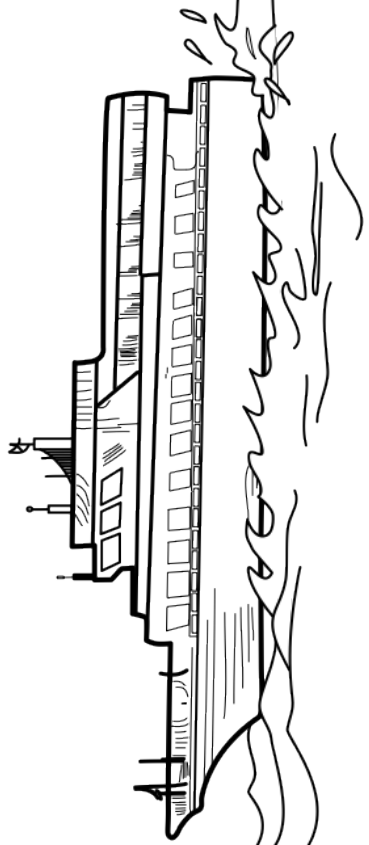
Modifications:

If the lesson activity is too hard—

1. Reduce the number of objects in the experiment.
2. Experiment with all the sinking objects first, then move to all the floating objects.
3. Provide extra support in completing the chart by using a paper or ruler to highlight the row where the mark should go.

If the lesson activity is too easy—

1. Experiment with additional objects.
2. Place objects inside a container that floats (e.g., margarine tub) and see how many heavy objects it can hold and still float.
3. Experiment with porous objects like sponge or paper.

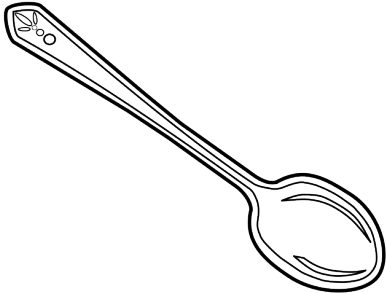
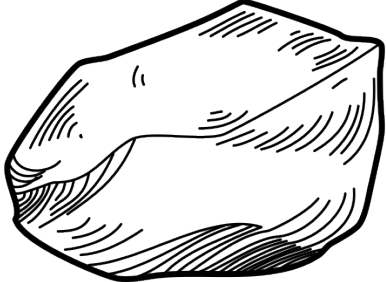
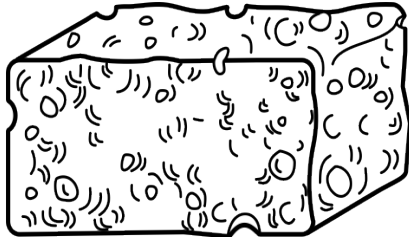
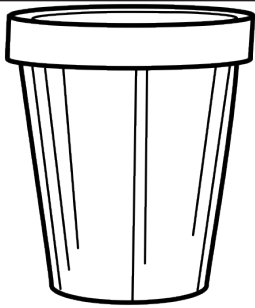
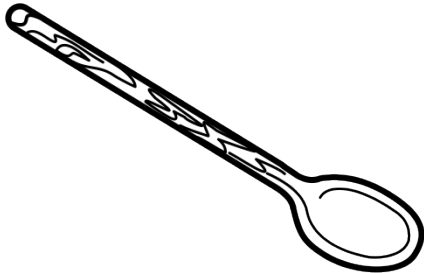
motorboat

rowboat

sailboat

ship

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	Sink	Float
		
		
		
		
		

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TRANSPORTATION (LESSON 6)

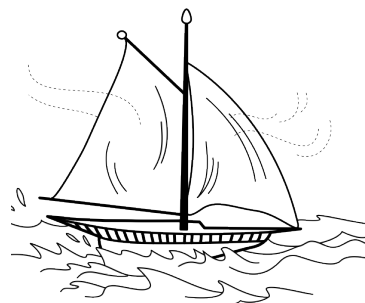
PARENT PAGE

What we are learning:

Your child will identify boats as a type of transportation that travels on water, and he/she will identify boat parts and their purposes. Your child will orally discuss which objects will float and which objects will sink.

Words to know:

- | | |
|----------------|-------------------|
| ♦ float—flotar | ♦ paddle—remo |
| ♦ sink—hundir | ♦ ship—barco |
| ♦ sail—navegar | ♦ motor—motor |
| ♦ row—remar | ♦ captain—capitán |



What to ask:

1. *If a boat has paddles, what type of boat is it?*
2. *If a boat has sails, what type of boat is it?*
3. *If a boat has an engine, what type of boat could it be?*
4. *Which type of boat do you think can go faster?*
5. *If you were going on a long trip, which type of boat would you like to take? (Pause) Why?*

What else to do:

1. Help your child make a boat from aluminum foil by forming it into the shape of a boat. Allow your child to float it in the bathtub, sink, or a puddle outside. Discuss whether the boat sinks or floats.

2. Teach your child the song, "Row, Row, Row Your Boat."

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3. Visit the public library and check out *Busy Boats*, by Tony Mitton; *Sail Away*, by Janet Buell; or *Toy Boat*, by Randal de Seve. Read the book aloud to your child.