



# Using Sailboats

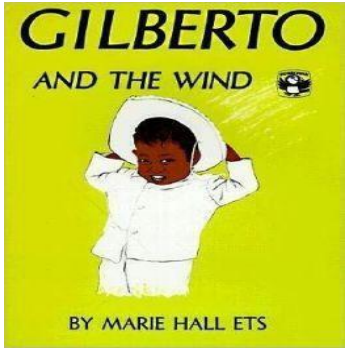
Standard Connection:  
 ELA.SL.PK4.1  
 ELA.L.PK4.1e  
 M.CC.PK4.4  
 M.G.PK4.2  
 S.PS.PK4.4  
 PD.FM.PK4.4

**Enduring Understanding(s):**

- Weather can inspire artistic expression and provide opportunities for recreation.

**Essential Question(s):**

- How do living things work together to solve problems and accomplish goals?

Materials	Vocabulary	Books
<ul style="list-style-type: none"> <li>• <i>Gilberto and the Wind</i></li> <li>• children’s sailboats</li> <li>• images of sailboats (see Resource)</li> <li>• smocks</li> <li>• clear bins with water</li> </ul>	<p><b>sail:</b> made of cloth; uses the wind to move a sailboat</p> <p><b>wind:</b> movement of air</p> <p><b>propel:</b> move something forward</p>	

Intro to Centers	
<b>Preparation:</b> <i>Set up materials.</i>	
<p>“In <i>Gilberto and the Wind</i>, the <b>wind propelled</b> - moved - Gilberto’s sailboat across the water. What do you notice?”</p>	<p><b>Show illustrations.</b> <b>Children respond.</b></p>
<p>“Today in Science, you can <b>sail</b> the sailboats you created in Creative Arts. How are your sailboats similar to or different from Gilberto’s sailboat?”</p>	<p><b>Show children’s sailboats.</b> <b>Children respond.</b></p>
<p>“How can you <b>propel</b> your sailboat across the water?”</p>	<p><b>Children respond.</b></p>
<p>“One way to <b>propel</b> your sailboat is to make <b>wind</b> by blowing with your mouth.”</p>	<p><b>Model.</b></p>
<p>“What do you predict would happen to your sailboat if the <b>wind</b> were _____ (gentle, strong, etc.)?”</p>	<p><b>Children respond.</b></p>

### **During Centers:**

Encourage children to make predictions and experiment with different strengths of wind. Encourage children to experiment and record (which boat sailed the farthest, fastest, etc.). Guide children to consider how their boat design impacts the successful sailing of their boat. Encourage children to transport passengers and/or cargo in their sailboats and consider the variables of weight, quantity, and capacity.

### **Guiding Questions During Centers:**

- How could you make your sailboat sail faster? Slower?
- How do different strengths of wind affect the water?
- How is a sailboat similar to or different from other forms of transportation?
- How does the size/shape/construction of your boat affect how it sails?

### **Thinking and Feedback:**

Invite children to share their processes. Encourage children to describe the challenges they might have encountered.

### **Documentation:**

Collect samples of the children's work as well as photographs of their processes; use the documentation to launch a discussion during Thinking and Feedback.

### **Provocation:**

- Encourage children to research water movement (waves, currents, and how weather affects water movement). Add props such as eggbeaters, waterwheels, whisks, etc., for children to experiment with different ways of moving water.
- Arrange a field trip to a nearby lake, the Ross Barnett Reservoir, or the Mississippi Gulf Coast to observe real sailboats. Interview a captain or a sailor on one of these boats.

### **Differentiation/Accommodation:**

For Intro to Centers, children with limited verbal skills can use a pre-programmed voice output device to answer questions about the story. (Keep in mind these will likely be closed-ended questions, as those are easiest to program into devices.) This can also be used to help children answer Guiding Questions. During Centers, partner children who need extra support for the experiment with children who do not. Provide picture cards to remind children of mathematical terms used in the experiment. Support children in the recording of their results.