

Curious George Sailboat

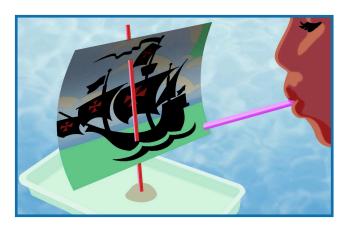
What kind of boat can you build out of reused materials?

Instructions

Students realize the utility of reusing materials when they create their own toy boats out of them, while also experimenting with the effects of wind.

PREPARATION:

- Set up the boat building area so that children have access to a range of materials that inspire creativity.
- Set up the boat sailing area so that groups of children can test their boats on the water and make them sail.



Materials

PER GROUP OF APPROXIMATELY 6 CHILDREN

- □ Large, shallow basins of water for sailing boats
- Drinking straws cut in half
 and pieces of cardboard
 for blowing or fanning the
 boats



Find more activities at: www.DiscoverE.org

Instructions

ACTIVITY:

1 Talk about the photos on display, asking such questions as, which of these photos shows a windy day? How can you tell? What kinds of boats do you see? Which photos show things made out of recycled materials?

- 2 Explain that today students will create their own boats made out of reused materials. Show students the materials they can use, and point out the recycled symbol on various items. Tell them to be on the lookout for the recycled symbol as they build.
- **3** Let students build their boats, providing guidance as needed. Encourage lots of different designs.
- 4 Ask students to blow on their hands, first softly and then as hard as they can. Note that a soft breath is like a breeze, and their hardest breath is more like wind. Then show them other ways to make air move, such as blowing through a straw or fanning the air with cardboard.

5 Invite students to put their boats in the water and see how they can make them

move with the wind. Challenge them to make their boats move in different directions. As an option, use the battery-operated fans to create wind, but be careful to keep them out of the water.



Materials

PER CLASS:

- Photos for display of boats,
 windy days, and objects
 made out of recycled
 materials
- Clean, reusable materials
 suitable for building
 boats: small plastic food
 containers, lids, trays, bottle
 caps, foam water noodles
 sliced into discs, etc.
- Craft sticks or coffee stirrers (for masts)
- Paper rectangles and triangles cut out of colorful magazines (for sails)
- Waterproof modeling clay and masking tape (for attaching masts and sails)
- Battery-powered fans (optional)



Engineering & Science Connections

Engineers invent ways to recycle materials. They have figured out how to make clothes out of soda bottles, building planks for playgrounds and decks out of plastic, and used paper into paper towels and napkins.

Every time engineers come up with a new way to recycle materials, they are helping us all to make less pollution and cut down fewer trees. Glass bottles can be recycled and reused indefinitely! Recycling 5 – ½ gallon plastic jugs can make enough polyester for a square yard of carpet.

Sails have been used throughout history to power boats for moving people and products, as well as recreation. It's easy to see how a sailboat can move forward when the wind is blowing behind it, but engineers have designed sailboats so that they can move forward even when the wind is coming from the side.

Guiding ? Questions

What kind of boat do you want to make?

If your boat is tilting, how can you make it sit upright?

Which materials are best for attaching sails or parts to your boat?

How could you change your design to make it go even faster in the wind?

Why is it important to reuse and recycle?

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