

BLOW, WIND, BLOW!

Curious George Flies a Kite

One windy day George becomes curious about the way the wind moves things. He ends up having a very exciting kite ride.



Key Science Concepts

- Wind can move things.
- Wind is moving air.
- Air is all around us.
- Air takes up space.

Math Skills

- Counting
- Using nonstandard measurement
- Recording and comparing quantities using a bar graph

Inquiry Skills

Posing questions, planning and conducting investigations, sharing explanations

Engineering Skills

Selecting and using appropriate tools, choosing and modifying materials

Materials and Tools: drinking straws, paper cups, plastic containers, different-sized balls, a balloon, string, index cards, objects movable by wind (feathers, pencils, buttons, etc.), water-soluble paint, storebought or homemade bubble wands (made from wire, pipe cleaners, etc.), electric fan, zip-sealed bags, bubble solution

Curious George Episodes: *Curious George Flies a Kite* (also available as a book), *Muddy Monkey*

Reproducible Activity Sheets: pages 32–33

Begin the Investigation

1. Experience the wind! Tell the class that they are going to be learning about the wind—with the help of a curious monkey named George! Go outside to stand in the wind, or set up a fan in the classroom. Ask children to describe the experience (their hair is moving, their eyes are tearing, etc.).

2. Introduce the story. Tell students that in *Curious George Flies a Kite*, George is curious about the way the wind moves things. Ask: *On a windy day, what things do you see moving? What things don't move? What kinds of things do you think move more easily?* Make a list of things that move in the wind.

3. Watch the episode. Introduce the video by telling students that one day, Curious George decides to fly a kite. As children watch, have them name the things they see being moved by the wind. Circle the items that appear on your chart and add any new items.

4. Discuss. Focus attention on science content by asking: *When Curious George opened his window, how did he know the wind was blowing? What did you see being blown by the wind? What objects were blown by the wind in other parts of the story? What objects did not fly in the wind? Why do you think they didn't?*

Encourage children to talk about the part of the story they liked best. George's flight on the kite is often a favorite. Bring the discussion back to earth by asking: *Do you think a kite could give you a ride like that? Why or why not?* Remind children of the message in the episode: *Curious George is a monkey in a cartoon, so he can do things we can't. But there are lots of great things we can do to explore and learn about wind.*

You may tape Curious George episodes off-air and share them with children for up to one year. For information on the book version of Curious George Flies a Kite and the DVD (available in 2007), see page 36.



Curiosity Lab 1: Blowing in the Wind



Key Science Concept
Wind can move things.



Investigate

1. Observe.

Have the children look out the window. Ask, *Is the wind blowing? How do you know?* Children can record the things they see being blown in the wind on a Curiosity Lab sheet (page 14), using pictures and/or words. Go outside to observe more closely!

2. Explore and record.

Have the children select classroom objects to investigate which ones the wind will or will not move, just like George did. Add a few objects of your own: a paper cup, plastic containers without lids, large and small heavy balls.

Take the objects outdoors on a breezy day (or set up a fan in the classroom). Have children gently handle the objects, make predictions, and then experiment. Extend by asking students: *Does changing the position of an object (placing it upside down, on its side) change the way it moves in the wind?* Record the results of the experiments on a two-column chart titled “Which Objects Did the Wind Move?” You can attach, draw, or write the name of each object on the chart. (Some objects may appear in both columns.)

3. Reflect and discuss.

Stop when you have several objects in each column and ask: *What do you think is similar about the objects in this column? What do you think is different about the objects in this column and those in the other column? Which other objects do you think might move with the wind? Why do you think so?*

Children may draw the conclusion that the wind can move light objects but not heavy objects. This is a very good “first step” generalization. Help children deepen their understanding by drawing attention to heavier objects, like the balls, that the wind moves and lighter objects, such as a small plastic animal, that the wind does not move. Children may be able to draw the conclusion that both the weight and shape of an object affect whether it will be moved by the wind.

Which Objects Did the Wind Move?

Yes	No

Curiosity Lab 2: Fan & Blow



Key Science Concepts
Wind can move things.
Wind is moving air.



Investigate

1. Making air move.

Invite students to demonstrate different ways that they can make air move and create a breeze (blowing, waving their hands, fanning the air with objects). Can they think of tools or machines—fans, hairdryers, pumps, etc.—that will make the air move? Suspend a balloon from a string and let students explore different ways to make the balloon move by causing the air to move.

2. Go, George, go!

Give each child an index card. Let children explore different ways to make the card move across a table without touching it. Ask: *What did you do to make the card move? What made it move the fastest or farthest? Why do you think that worked best? How do you think you could change the shape of the card so that it would move better?* Have children change the shape of their card by folding down an edge, pleating it, scrunching it—and try it out.

Working in small groups, have students design an experiment to see which shape moves the farthest with one gust of “wind.” They may need to come up with a way to measure the distance each shape travels, using nonstandard measurement. Gather the class together to demonstrate their discoveries and discuss why they think some card shapes move better than other card shapes.

3. How many breaths?

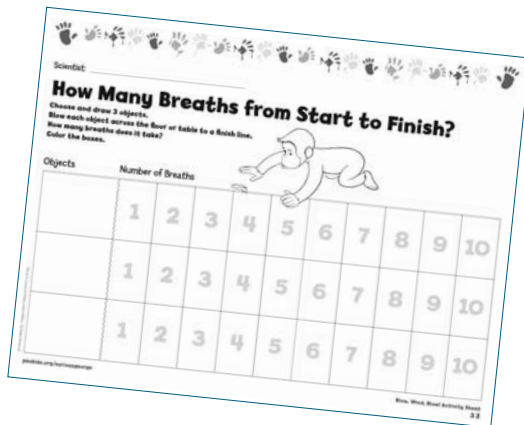
Have the class choose three items that they think they can move with their breath (for example, a feather, a button, a pencil). Together, draw the

three items on the [How Many Breaths?](#) activity sheet. Children will blow each item along the floor or table from a starting line to a finish line about six feet away, counting the number of breaths it takes for each item to travel that distance. Invite children to make predictions: *Which objects do you think will move most easily? Do you think any will go up in the air? Why do you think so?*

Working in groups, have children blow the first item across the floor or table. A partner can help count the breaths. Help children record their data on the bar graph. Repeat with the other items. When the investigation is finished, compare results. *What did you discover? Were any of our predictions correct? Which item took the fewest number of breaths? Why do you think that item moved more easily than the others? Did any one have a different result? Why do you think our results were different?*

4. Wind art.

Children can use a drinking straw to blow small puddles of watered-down paint across paper. Encourage children to try blowing the paint in different directions. **Health Note:** Put a ring of masking tape around each straw near the top and have each child write his or her initials on the tape. This will help children keep track of their own straws and remind them to place the same end in their mouths.



Curiosity Lab 3: Air & Bubbles



Key Science Concepts

Wind is moving air.

Air is all around us.

Air takes up space.



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Investigate

1. Capturing air.

Tell children that they are going to be capturing air in plastic sandwich bags. Ask: *Where can we find some air?* Establish that air is all around us. Distribute zip-sealed bags, practice opening and sealing the closure, then encourage kids to explore different ways to capture air and seal it in their bags. When everyone has accomplished this, ask, *How do your bags look different now? Why do you think your bag has changed shape? What do you think is inside? What does air look like?* Have children brainstorm other things that we fill up with air (tires, balloons, soccer balls, etc.).

2. Feel the wind.

Fill a zip-sealed bag with air, then open a small section, squeezing the bag so you can feel the escaping air on your face. Have children try this. Ask: *What did you feel? (air, wind) What does your bag look like now? Why? Where did the air go? Can you see it?* Have students fill and squeeze their bags again. Ask: *Can you feel the wind on your face? Who can tell me what wind is?* Encourage discussion.

Muddy Monkey

Curious George explores mud, water, and soap bubbles outdoors and in the tub.



3. Blowing bubbles.

Watch the *Curious George* episode, **Muddy Monkey**. In the “Curious Kids” video clip after the episode, real kids experiment with soap bubbles and homemade bubble wands. Go outside and do some bubble explorations of your own. Provide bubble solution and bubble wands. (Children can make wands from wire, pipe cleaners, plastic lids and paper cups with bottoms cut out in different shapes, etc.)

Have the students blow or wave their wands and observe the bubbles. Ask students: *What questions come into your mind as you watch the bubbles? What do you wonder about?* Encourage children to share ideas. Also ask: *Show (or tell) me how the bubbles are moving. What is making the bubbles move? How can you change the way the bubbles are moving? What do you think is inside a bubble?*

Who Has Seen the Wind?

by Christina G. Rossetti

Who has seen the wind?
Neither I nor you.
But when the leaves hang trembling,
The wind is passing through.

Who has seen the wind?
Neither you or I.
But when the trees bow down their heads,
The wind is passing by.

A Kite

Anonymous

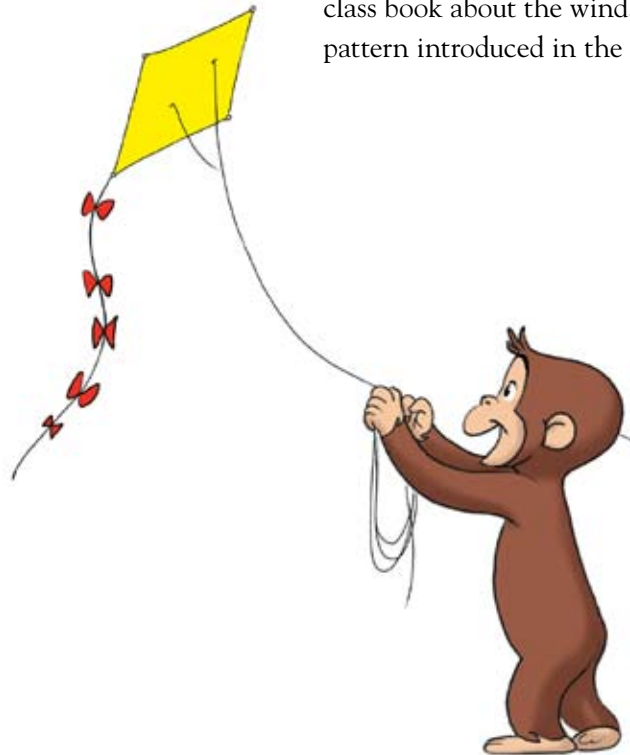
I often sit and wish that I
Could be a kite up in the sky
And ride upon the breeze and go
Whichever way the wind did blow.

Extend with Literature

“Who Has Seen the Wind?” Write Rossetti’s poem on a large chart. Point to the words as you read. Have the class close their eyes and picture the wind making the leaves tremble and the trees bow down. Let the children act out the imagery as you reread the poem.

“A Kite.” Copy the poem on chart paper and read it to the children. Repeat, encouraging children to chime in. Let children demonstrate how they would move if they were kites riding on the breeze.

Class Book. Read *The Wind Blew* by Pat Hutchins (available as a Big Book). Using the illustrations, have the students predict what the wind will blow next. Write and illustrate your own class book about the wind, using the pattern introduced in the story.



Book List

Asch, Frank and Devin Asch. *Like a Windy Day*
Branley, Franklyn M. *Air Is All Around You*
Cobb, Vicki. *I Face the Wind*
Dorros, Arthur. *Feel the Wind*
Ehlert, Lois. *Leaf Man*
Ets, Marie Hall. *Gilberto and the Wind*
Hutchins, Pat. *The Wind Blew*
Lin, Grace. *Kite Flying*
Simon, Seymour & Nicole Fauteux. *Let's Try It Out in the Air*

Wrap Up the Investigation

Let's go fly a kite!

Now that your class has learned more about wind, celebrate by making and flying your own kites (see [Make a Kite!](#) family activity sheet). These simple kites fly equally well indoors or outdoors. Before making the kites, watch the “Curious Kids” video clip that follows *Curious George Flies a Kite* in which children build and fly their own kites. The kites your students will be making do not have the traditional diamond shape. You may want to discuss how your kites are similar to and different from the kites in the video. Encourage students to experiment with kite design and flying techniques. *Which works best: a long tail, a short tail, or no tail? Is it better to walk quickly, walk slowly, or spin around? Why do you think so?* Send home the [Make a Kite!](#) activity sheet for families to enjoy together.

Review, reflect, and expand.

Ask the class, *What are some things we discovered about air and wind and what wind can do? Which experiments helped you learn the most about wind and air? Why?* Write the responses on a chart. Children’s understanding of wind and air develops and deepens gradually through cumulative experiences and discussions. You can build on the foundations acquired in this unit by continuing to explore the topic, especially those aspects in which children expressed curiosity. Consider studying wind and air as part of a unit on weather, physical matter (solid, liquid, gas), and/or motion.





Scientist: _____

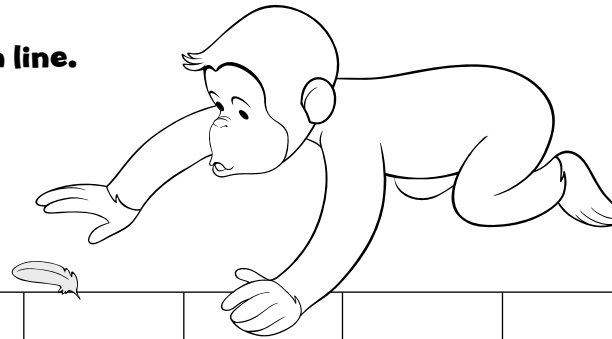
How Many Breaths from Start to Finish?

Choose and draw 3 objects.

Blow each object across the floor or table to a finish line.

How many breaths does it take?

Color the boxes.



Objects

Number of Breaths

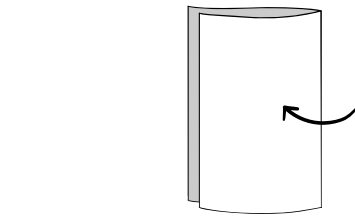
	1	2	3	4	5	6	7	8	9	10
	1	2	3	4	5	6	7	8	9	10
	1	2	3	4	5	6	7	8	9	10

Make a Kite!

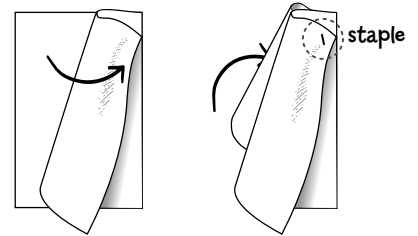
Follow these simple instructions, and soon you'll be flying a kite—just like George!

All you need is:

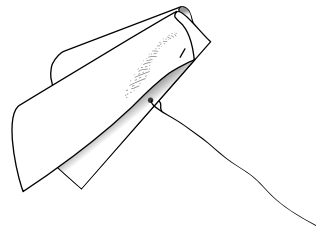
- a piece of paper
- a stapler
- thread (2–3 feet)
- crepe paper streamer or strip of tissue paper for a tail



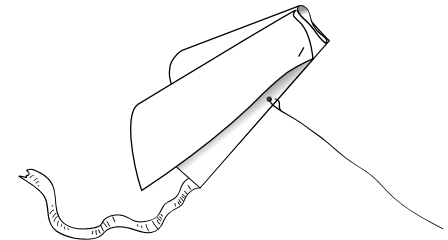
1 Fold a piece of paper in half.



2 Bend down the top corner of each side and staple near the center fold.



3 Make a hole near the fold, a little less than half way down, and tie on some thread. Try flying your kite.



4 Attach a tail to your kite. Try flying your kite again. What do you notice?

Dear Family,

In class, we have been exploring the wind and the way it moves things. Here is a simple kite that you and your child can make together. Fly it indoors or outdoors.

Start by having your child hold onto the string near the kite and walk with his or her arm raised. Try these kite experiments with your child.

- Does your kite fly higher if you walk slowly or quickly? Why do you think that is?
- Can you fly the kite while you're standing still? (Hint: Try waving your arm over your head.)