

Keep this sheet.  
Collect them all!



## Explore your world with this Science-to-Go backpack



### Books in this backpack

- **Everything Weather: Facts, Photos, and Fun that Will Blow Your Mind**  
by Kathy Furgang
- **Explore Weather and Climate! With 25 Great Projects**  
by Kathleen M. Reilly
- **How the Weather Works: A Hands-on Guide to Our Changing Climate**  
by Christiane Dorion
- **The Story of Snow: The Science of Winter's Wonder**  
by Mark Cassino
- **What is Weather?**  
by Ellen Lawrence

### Idea!

Write a story about a storm you've lived through. Include your story in the field notebook.

More books  
at your  
library

Global Warming. Seymour Simon. J363.7387  
Inside Lightning. Melissa Stewart. J551.5632  
The Superstorm Hurricane Sandy. Josh Gregory. J363.3492  
Weather. Seymour Simon. J551.5  
Weather and Climate Through Infographics. Rebecca Rowell. J551.6

Local Connection

Participate in citizen science. Use a rain gauge to collect daily precipitation. Report your findings to the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS) at [www.cocorahs.org](http://www.cocorahs.org).



# ACTIVITY

## Watch the Wind

You're welcome to keep this sheet!

The air around you is always in motion. Would you believe that the origin of wind is the sun? It's true! The sun heats up the ground. That heat then rises from the ground and moves the air, creating wind. You can vividly see this phenomenon using a toaster and a pinwheel.

### What you need:

- Toaster
- 5" x 5" square piece of thick paper
- Scissors
- Push pin
- Glue (optional)
- Regular pencil with eraser

### Try this:

1. Make your pinwheel.
  - a. Draw diagonal lines from corner to corner on your paper square. Cut along each line, stopping one inch from the center.
  - b. Dab glue on the center of the cut paper square. Bend every other point to the center, being careful NOT to fold or crease the paper. Dot with glue as you go.
  - c. Let dry for a minute.
  - d. Push the pin through the center of your wheel.
  - e. Push the end of the pin into the top of the pencil eraser. Wiggle to loosen.
2. Blow on your pinwheel to make sure it spins freely. Ta-da!
3. Create wind. Turn on the toaster; hold the pinwheel about one foot directly above and pointed down a bit. Be patient—it takes a minute or two. Notice the pinwheel flutters at first, then watch it spin!

### Going Further

Now that you understand how wind forms, what about clouds? Fill a metal pie pan with ice cubes. Next, fill a glass jar with very hot water. Dump out the water after about 10 seconds. Set the pie pan on top of the empty jar. Look carefully to see a cloud form.