



# BACKYARD ADVENTURES

## LITTLE LAB WEEK 3: TORNADOS & WIND

EVER WONDER . . . WHAT THE WIND IS?

### What we learned this week:

- Wind is caused by warm and cool air rising and falling.
- Wind can help us by providing energy.
- Tornadoes are spinning wind storms.

### Curiosity Circle

This week, Captain Curiosity has thinking about the wind. He has started to wonder – what is wind anyway? And what are tornadoes? We had lots to learn this week so we could explain these things to him. First, we pulled things out of the Mystery Box that have to do with the wind and talked about them. Next we did some fun experiments with wind and learned the answers to these “Ever wonder?” questions: **Ever wonder what wind is?** Wind is air that is moving over the Earth’s surface. Wind can move so softly that you can barely feel it, or blow so hard it can knock you over! **Ever wonder what causes wind to blow?** Warm air rises. As it does, cooler air rushes in to take its place. That rush of air makes the wind blow! **Ever wonder how we can use the wind to help us?** Sometimes we catch



the wind in machines called windmills that can be used to do things like grind up food or make electricity. Pinwheels catch the wind just like windmills do! The wind also helps us out in nature by blowing pollen and plant seeds to different places so new plants can grow. **Ever wonder what a tornado is?** Another kind of storm that can bring strong winds is a thunderstorm. Thunderstorms sometimes produce a wind that spins in a tight circle; this is called a tornado. Tornadoes start in the clouds, where a strong



combination of hot air and cold air causes the wind to start spinning in a funnel shape. These winds can blow more than 250 miles per hour! If a tornado reaches the whole way from the storm clouds to the ground, it can cause a lot of damage. Tornadoes can form over both land and water; tornadoes over water are more commonly called water spouts. Tornadoes can happen any time, but mostly happen during spring and summer. They form in many places in the world, but most often occur just east of the Rocky Mountains in the United States. Sometimes we even have tornadoes in Virginia! If you hear that a tornado is coming, be sure to find a safe, sheltered place away from windows (which could break from the wind and hurt you). **Ever wonder what a hurricane is?** Sometimes the wind gets so strong that it can knock things over or pull them apart. These winds are usually part of a storm. One such storm is a hurricane (also called a typhoon or cyclone, depending on where on Earth it forms). Hurricanes start out as small storms in the warmer parts of the ocean and then build as they travel across the ocean. Hurricanes sometimes get really big and produce violent winds, huge waves, heavy rains and floods. For example, there was a hurricane in Louisiana and Mississippi in 2005 that caused severe flooding and destroyed many people’s homes.

### Curiosity Centers

- ◆ **Discovery Activity:** We used the wind to help us move things. We also played with bubbles and explored different wind speeds.
- ◆ **Manipulative Activity:** We used our tornado tubes and our bodies to explore how a tornado spins.
- ◆ **Art Activity:** We made wind streamers to help us measure how hard the wind outside is blowing!

### The Roundup & The Big Deal

We used the parachute to make a gigantic spinning tornado!

### Hey, Hey Word of the Day: TORNADO

### Curiosity @ Home

Make this week at home all about wind. Check the wind every day using your wind streamer, and try to figure out what the changes in the wind tell you about changes in the weather. Watch the news for examples of tornadoes or other heavy winds caused by thunderstorms. Also, play with your tornado tube and talk about what other things spin (like, for example, the water in the toilet!).



## Songs & Poems

**C-Zone Song** (to the tune “I’m a Little Teapot”)  
Welcome Song  
Welcome to the C-Zone  
It’s time for us to start  
Exploring and learning  
We’ve all got a part  
(Spoken) So let’s fasten up our lab coats and get curious!

**Song to the Captain (to the tune “Wheels on the Bus”)**  
Warm and cold air move around (What?)  
Move around (What?)  
Move around (What?)  
Warm and cold move around(What?)  
That’s what makes the wind blow.

**I’m a Big Tornado** (to the tune “I’m a Little Teapot”)  
I’m a big tornado spinning round  
Touch the clouds and touch the ground.  
Going over land I spin so fast,  
Stay inside until I’ve past.

Sometimes wind storms spin around (What?)  
Spin around (What?)  
Spin around (What?)  
Sometimes wind storms spin around (What?)  
Like a hurricane or tornado!

**C-Zone Goodbye Song**  
Goodbye from the C-Zone  
It’s time for us to go  
The learning never stops  
Now tell me what you know!



**IS FOR TORNADO**

### MAKE YOUR OWN PINWHEEL

Materials: pinwheel design (see picture at right), crayons, straight pin, pencil with an eraser. Procedure: Color in and cut out the pinwheel design pictured at right. Cut along the diagonal lines, stopping about 1 inch from the center of the square (as drawn). Gently fold one corner of each section into the middle (but don’t crease). Repeat in each section until a symmetrical pinwheel shape is formed. Push a straight pin through the center so that the folded-in corners are all anchored, then anchor the pointed end of the pin in the eraser of a pencil. Find some wind (or make your own) and enjoy!

