

## Activity: The Tornado Experiment



**Before you begin with this experiment, AN ADULT must be present.** The purpose of this activity is to see how a tornado is formed. A tornado is a vortex created by a (super cell) thunderstorm that can grow to altitudes over 40,000 feet. The items you will need for the experiment are:

- 8 ounce glass jar with lid
- Water
- Vinegar
- Clear liquid dish soap
- A pinch of glitter

The next steps include filling the jar  $\frac{3}{4}$  full of water, adding in one teaspoon of vinegar and one teaspoon of dish soap. Sprinkle a small amount of glitter in the jar. Put the lid on the jar; twist the jar to see the twister form.

**What you should see happening in this experiment?** As you twist the jar, the water inside up against the glass is pulled along due to its friction against the glass walls. The fluid toward the inside takes longer to get moving. Eventually, both the glass jar and the fluid will spin as you rotate the jar. When you stop rotating the jar, the fluid inside will continue to spin for a few seconds, and you will see a small twister when the outer fluid slows down and the inner fluid continues to spin rapidly. Try this experiment a couple of times.