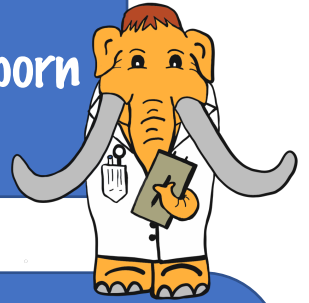


Science Saturday @ Home

Magic Tree House: Twister on Tuesday by Mary Pope Osborn
Twister In A Bottle



Gathering Supplies:

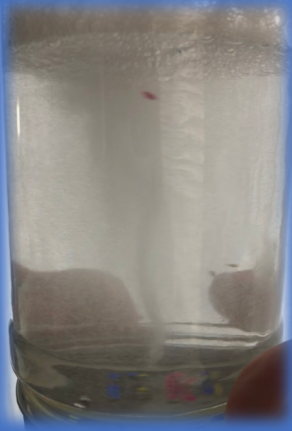
Clean Containers
Dish Soap
Water
Glitter

In the Magic Tree House book *Twister on Tuesday*, Jack and Annie travel back in time to 1870 where they learn first hand about tornados. See if you can make your own tornado in a bottle!

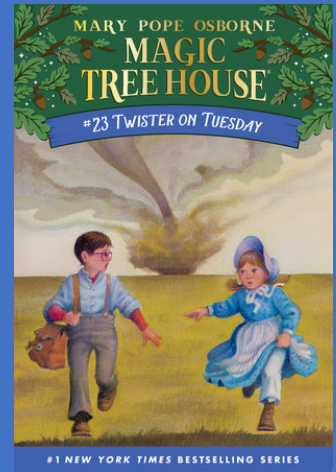
How To Steps:

1. Fill a clear tall container (a clear, tall soda bottle works well) $\frac{3}{4}$ full with water.
2. Add a little bit of glitter (optional).
3. Add a few drops of dish detergent.
4. Put the cap on tight and move the bottle in a circular movement for a few seconds then stop and see what happens inside the bottle.
5. It may take a few tries to find what movement works best to get a tornado to form in your bottle.

Max's Twisters



Magic Tree House #23 Twister on Tuesday
By Mary Pope Osborne
Published by Random House Books, 2001



Did You Know?

Tornadoes have occurred on every continent except Antarctica. One of the most common places for tornadoes to occur is the Midwestern part of the United States. They are so common there that the region is called Tornado Alley. Why are there so many tornadoes there? That seems to be because the warm wet air comes up from the Gulf of Mexico where it sometimes run into cool dry winds coming from the Rocky Mountains. When this happens strong thunderstorms called super cells occur. When the cold, heavy air gets trapped above warm, light air, strong winds form. The cold heavy air sinks and spins around the outside of a tornado, while the warm air spins up the inside creating a funnel of wind.

The bigger the temperature difference, the more they have a tendency to trade places, and the stronger the tornado!

The "tornado in a bottle" forms not because of different temperatures but because of centripetal force. As the water and glitter spin around the bottle centripetal force is pulling them towards the center of the circular path, or vortex, creating a spinning tornado like cloud in your bottle!