

# The Wizard of Oz

January 20 – 29, 2023

Fridays & Saturdays at 7:30 pm  
Sundays at 3:00 pm

2<sup>nd</sup> Street Stage

Hannah Block Historic USO/Community Arts Center  
120 South 2<sup>nd</sup> Street



January 20–29, 2023

By L. Frank Baum. Music & Lyrics Harold Arlen & E. Y. Harburg. Background Music by Herbert Stothart.

*The Wizard of Oz: Youth Edition* is a one-hour adaptation of *The Wizard of Oz*, specially tailored for elementary and middle school-aged actors. The materials have been prepared to help your school or organization mount the best possible production and to give your young cast and crew an exciting and rewarding experience. The MGM film *The Wizard of Oz*, based on L. Frank Baum's 1900 novel, premiered Grauman's Chinese Theatre in Hollywood on August 15, 1939. The Royal Shakespeare Company presented a live stage adaptation of the film at the Barbican Centre in London in 1987.



## About the Thalian Association

Thalian Association Community Theatre is a non-profit, membership organization that's dedicated to enhancing the rich artistic environment of the Cape Fear region. Tracing its roots back to 1788, the Thalian Association Community Theatre was founded to provide arts education and bring the excitement of the performing arts to Wilmington, North Carolina. Today the Thalian Association Community Theatre produces five major productions annually on the Main Stage at historic Thalian Hall, offers a Youth Theatre program and professionally manages the Hannah Block Historic USO/Community Arts Center for the City of Wilmington. In 2007, the North Carolina legislature named the Thalian Association Community Theatre the Official Community Theater of North Carolina.

NC State Standards –4.L.1, 4.P.1, RL.3.1, 2.E.1

Image Sources – Sciencefocus.com, globalnews.ca, abcnews.com, mottchildren.org, wunderground.com

# Tornado STEM Activity

## Tornado Definitions

Here are some tornado definitions and guidelines from the National Oceanographic and Atmospheric Administration (NOAA)'s National Weather Service. Follow these to help keep you and your family safe!



**Tornado Watch** - issued when conditions are favorable for tornado development. People located in and around the watch area should keep an eye to the sky and listen to their NOAA weather radio all hazards or tune to local broadcast media for further weather information. The watch is intended to give you time to prepare and time to review your safety rules.

**Tornado Warning** - issued when a developing tornado has been detected by National Weather Service doppler radar or a reliable report of a tornado has been reported. A tornado warning is usually issued for portions of one or two counties, for an hour or less. The storm could also produce large hail and destructive straight-line winds. If the tornado warning includes your neighborhood or workplace, you should seek safe shelter immediately.

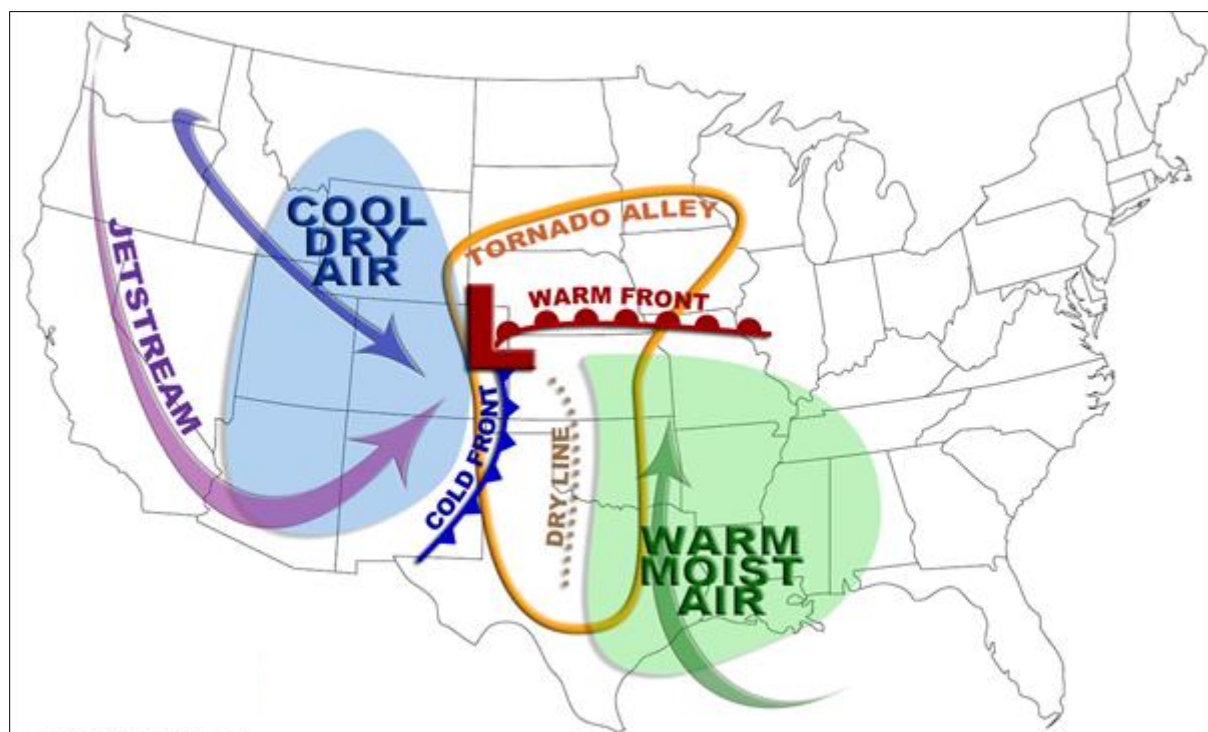
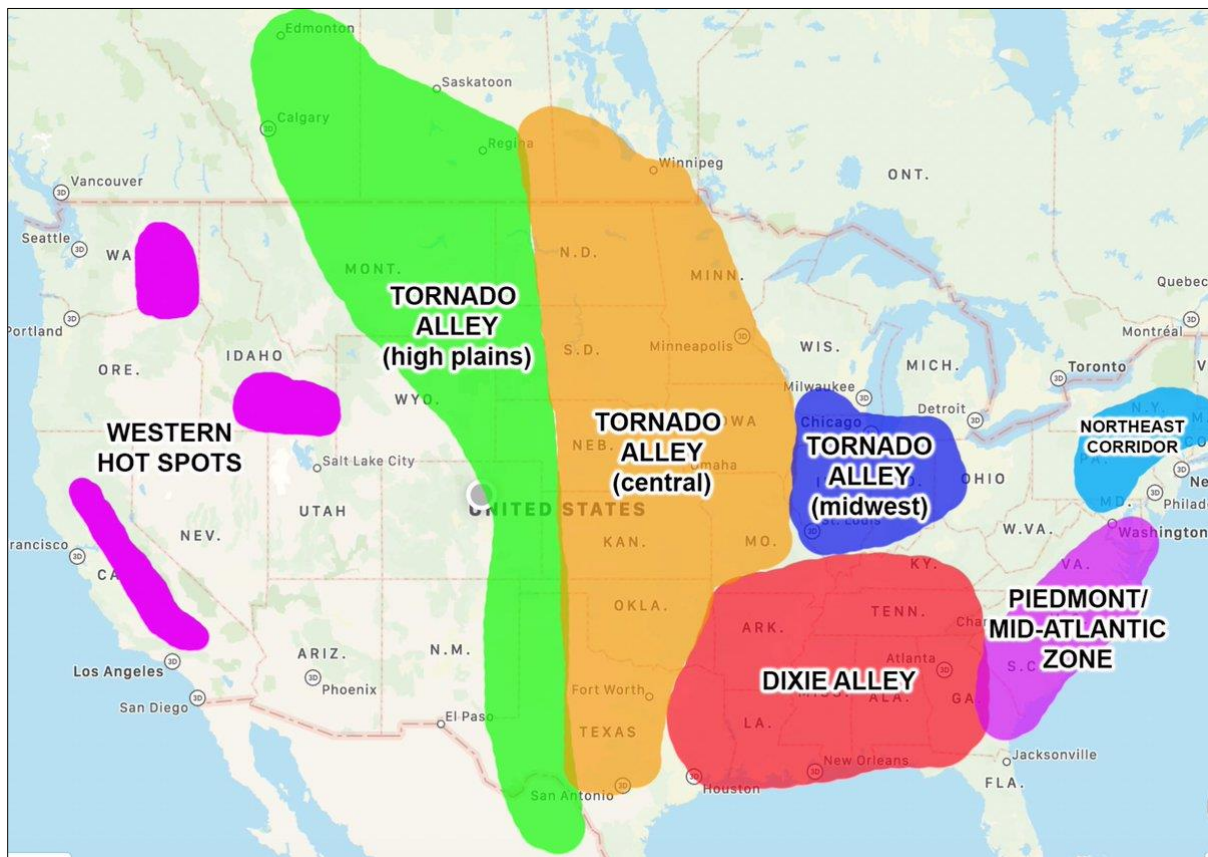


**In the event of a tornado, here are some tornado safety rules to keep you and your family safe:**

- In general, get as low as you can. A basement below ground level or the lowest floor of a building offers the greatest safety. Put as many walls between yourself and the outside as possible. Avoid windows at all cost!
- Tornadoes could be obscured by rainfall or come at nighttime. Do not wait until you see or hear the tornado, it may be too late.
- Do not waste time opening or closing windows and doors. It will not protect the structure. You will only waste time and put yourself and others in greater risk. Use those valuable seconds to find a place of safety.
- In homes or public buildings: go to the basement or a small interior room, such as a closet, bathroom or an interior hall on the lowest level. Close all doors to the hallway for greater protection. If possible, get under something sturdy like a heavy table. Protect yourself from flying debris with pillows, heavy coats, blankets or quilts. Use bicycle or motorcycle helmets to protect your head.
- In mobile homes: leave well in advance of the approaching severe weather and go to a strong building. If there is no shelter nearby, get into the nearest ditch, low spot or underground culvert. Lie flat, covering your head with your hands for protection.
- In vehicles or outdoors: when tornadoes are possible, limit your outdoor plans or finish them early. Stay close to a sturdy shelter. If caught outside, find shelter in a ditch or remain in your vehicle and cover your head for protection. Do not take shelter under a highway overpass, where wind speeds can increase due to a tunneling effect. It is best to not put yourself or others in a situation where no sturdy shelter is available.
- Remember, stay away from doors, windows, outside walls and protect your head!

## Tornado Map

Look at these maps to learn about the tornado zones of the United States.



## Reading Comprehension Questions

Answer the following questions about tornados.

1. What is a tornado watch?
2. What is a tornado warning?
3. What part of a building should you avoid in the event of a tornado?
4. If a tornado is coming, what should you do instead of opening or closing doors and windows?
5. Where should you go if you are in a house or building when a tornado comes?
6. Where should you go if a tornado comes when you are in a mobile home?
7. What should you do if you are in a car when a tornado comes?
8. What part of your body should you always protect and cover?
9. Look at the map of tornado zones. What states are in Dixie Alley?
10. Roughly speaking, where are the three Western Hot Spots?
11. Look at the map of Tornado Alley. What types of air masses are intersecting?



Waterspouts like this one are tornado-like formations over water



## Discussion Questions

- Which location on the map of tornado zones surprised you the most?
- Did you expect there to be so many tornado zones?
- What is the most useful thing you have learned about tornados?

## Make Your Own Tornado!

Make your own tornado-in-a-bottle with this activity from Camp Little Victors! You can keep the filled bottle and come back to it again and again for more cyclone-making once the water settles.

What you'll need:

- Clear bottle or other tall, shatterproof container with a lid
- Water
- Dish soap
- Glitter or food coloring (optional, but may make it easier to see the tornado)



Instructions:

1. Fill your container about  $\frac{3}{4}$  full with clean water.
2. Add a squirt of dish soap, as well as your glitter or food coloring, if desired
3. Seal the container tightly.
4. Move the bottle rapidly in a circular motion. After a few seconds, you should see the water begin swirling. Stop, and watch your tornado!

Try experimenting with more or less water. Does the amount of water in your bottle have any effect on the size and speed of the tornado?

Using a bigger bottle may also result in larger tornados, which will be easier to observe.

The tornado in your bottle is caused by "centripetal force" – an inward-facing force that pulls an object or liquid toward the center of its circular path. The twister created in your bottle is caused by the water in the bottle spinning towards the center of the bottle, or vortex.