

# Thunderstorm



## WATER LITERACY PRINCIPLE

Water Resources Exist within Cultural Constructs:

- Water inspires music.

## HEAD START DOMAIN ELEMENTS

- Gross Motor Skills
- Self-Regulation
- Emotional & Behavioral Health
- Book Appreciation
- Conceptual Knowledge of the Natural & Physical World
- Music

## STANDARDS

NAEYC: 2.A.08.g; 2.A.10.b,e,f; 2.B.02.a,b; 2.C.04.b,c,e,f; 2.D.03.a,b,c; 2.D.04.b,d; 2.D.06.b; 2.E.04.d,g,h; 2.F.10.a,c; 2.G.02.b; 2.G.06.a; 2.G.07.a; 2.G.08.a; 2.H.03.a,b; 2.J.04.b; 2.K.03.b

NAAEE: 4.1, 4.2, 4.3, 4.4, 4.5, 4.6

NGSS: Supports K-ESS2-1 (DCI)

## COMMON CORE:

ELA: SL.K.1, SL.K.4, SL.K.6, SL.1.1, SL.1.4, SL.2.1, SL.2.4, W.K.8, W.1.8, W.2.8

## WATER WORDS

clouds, dark, lightning, loud, noise, rain, storm, sound, thunder

## HIGHLIGHTS

music through movement, story time

## Summary

Students simulate the sounds of a thunderstorm through physical activity.

- *Thunderstorm—Teacher Resource Page*

## Teacher Facts and Information

Thunderstorms are one of nature's most spectacular phenomena and are common throughout the country. What distinguishes a thunderstorm from other types of storms? Thunder and lightning. Lightning is an electric charge that occurs in the clouds. Sometimes this charge stays in the clouds and sometimes it releases to the ground. Lightning heats the air around it, which expands explosively and causes the crack of thunder and rumbles that follow. We see lightning before we hear thunder because light moves faster than sound.

Some thunderstorms cause destruction through high winds, hail, heavy rains and even tornadoes, but most storms only pass through, bringing moisture. Rain can be one of the primary benefits of thunderstorms.

The sights and sounds that accompany a thunderstorm are impressive—lightning flashes illuminate the sky, thunder rumbles and shakes houses, rain falls on roofs, the wind sways tree branches

## Suggested Resources

### MUSIC

- *Water We Singing About?* by Kevin Kopp (CD and download)

### STORY BOOK

- *Franklin and the Thunderstorm*, by Paulette Bourgeois
- *Tap Tap Boom Boom*, by Elizabeth Bluemle
- *Thunder Boomer!*, by Shutta Crum
- *Water for YOU and ME*, by the Project WET Foundation

## Materials

- *Pictures of lightning/thunderstorms*
- *Audio or video of a thunderstorm* (free audio available from *Orange Free Sounds*: [www.orange-freesounds.com/?s=thunderstorm](http://www.orange-freesounds.com/?s=thunderstorm))
- *Paper*
- *Crayons or other items for coloring*
- *Recommended story books*

and an occasional hailstone rattles windows. In watching storm clouds grow in the distance on a warm summer evening, we witness a spectacle of great beauty. However, when we are in a thunderstorm, safety becomes a priority. Close windows, shutters and outside doors. Secure outdoor objects that could blow away or cause damage. Most importantly, get indoors. It is better to be in a home, building or hard-topped vehicle than to be in the open.

## Warm Up

- Ask children if they know what a thunderstorm is. Have they seen one before? If so, what was it like?
- Show pictures of thunderstorms from *Thunderstorm—Teacher Resource Page*. What do they see? (Clouds and lightning!) Lightning is electricity in the sky during a thunderstorm. Clouds can make rain that falls from the sky during a thunderstorm.
- Play the sounds of a thunderstorm (or, if appropriate,

show a video). A free audio download is available from Orange Free Sounds.

- Ask children what sounds they heard. (Thunder and rain.) Thunder is the sound of lightning in the sky. Rain is also part of a thunderstorm and is important in providing water to the land.
- Ask children what the difference is between thunder and lightning. Listen to their ideas. (The difference is that lightning is what you see and thunder is what you hear.)
- Ask children how they feel during a thunderstorm. Have children share their memories from a thunderstorm. Explain that the safest place to watch or listen to a thunderstorm is inside.

## Activity Pre-K

1. Tell students you are going to create a pretend thunderstorm in class.

2. Lead students through the following series of motions:

- rub your hands together
- click your tongue
- clap your hands together
- slap your hands on your legs (*Optional:* At this time, a student flicks a light switch on and off to represent lightning, while another beats a drum to symbolize thunder.)
- stomp your feet
- slap your hands on your legs and stomp your feet (represents height of the storm)
- stomp your feet
- slap your hands on your legs
- clap your hands together
- click your tongue
- rub your hands together
- open palms (quiet)

3. When all students are standing with open palms, have them remain silent for a minute to think about the exercise and to catch their breath. Ask students to be seated. Discuss each motion and what part of a thunderstorm it sounded like.

## K-2

1. Follow **Pre-K** Steps 1-3.
2. Ask students to stand in a half circle in front of you. Explain that when you look at or point to a student, that student should move his or her body the same way you are. The student should continue making the motion until you make eye contact again or point to him or her and show a new



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Lightning is a beautiful and powerful part of a thunderstorm.

motion. Start with a student on one end and begin the first motion. Continue the motion as you make eye contact or point to each student down the line. Return to the first student and start the second motion. This will create a crescendo as the sounds produced by these motions move from one end to the other.

- Using this strategy, lead students through the series of motions outlined in **Pre-K** Step 2.

## Wrap Up

- Story:** Read one of the books from the *Suggested Resources* and discuss with children how thunderstorms make them feel.
- Review the *Safety Tips* with children. Remind students that the next time clouds look very dark, to go inside and listen and look for thunderstorms.
- K-2:** Have students write stories or draw pictures about

thunderstorms they have experienced.

## References

Federal Emergency Management Agency (FEMA). "Fact Sheet - Thunderstorms." <https://www.fema.gov/media-library/assets/documents/12392>. (Accessed December 21, 2016.)

Federal Emergency Management Agency (FEMA). "Thunderstorms and Lightning." [https://www.fema.gov/media-library-data/2607c3fe71a68fe165a53ec189fba37e/FEMA\\_FS\\_thunderstorm\\_508.pdf](https://www.fema.gov/media-library-data/2607c3fe71a68fe165a53ec189fba37e/FEMA_FS_thunderstorm_508.pdf) (Accessed December 21, 2016.)

Orange Free Sounds. "Thunderstorm." <http://www.orangefreesounds.com/?s=thunderstorm> (Accessed December 21, 2016.)

United States Department of Homeland Security. "Thunderstorms & Lightning." <https://www.ready.gov/>

[thunderstorms-lightning](#) (Accessed December 21, 2016.)

National Aeronautics and Space Administration (NASA) and National Oceanic Atmospheric Administration (NOAA). SciJinks: It's all about weather! "What causes lightning and thunder?" <http://scijinks.gov/lightning/> (Accessed December 21, 2016.)

## Safety Tips

- Go indoors when you see lightning.
- Close windows and shutters.
- Stay in a car if outdoors.
- Do not use tall or lone trees for shelter.
- Do not sit on hilltops.
- If outdoors find a low area under small shrubs.
- Avoid plugged electrical cords and phones (wireless is safe).



# THUNDERSTORM-TEACHER RESOURCE PAGE



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