



Thunderstorms and Flooding

Spring means rain showers across the Inland Northwest. With the arrival of spring, the snow melts, the ground thaws, and the rain falls. On a typical spring day, we can experience rain or hail showers one minute and clear, sunny skies the next!

Remember when you saw your last flash of lightning or heard a rumble of thunder? It may have made you scared or even a bit excited. These events come from thunderstorms. All thunderstorms produce thunder and lightning. Lightning is the electricity in the storm cloud. Thunder is the sound lightning makes in the air. It's not safe to be outside when lightning is flashing across the sky, nor is it safe to be on a ball field, on the water, or standing near a tree. Remember, when **THUNDER ROARS, GO INDOORS**.

You need certain ingredients to make a thunderstorm. It's a bit like baking a cake. If you forget an ingredient, like flour or an egg, then the cake won't turn out. The same is true for a thunderstorm, so here's the recipe!

- The first is moisture or water in the air. This is water vapor. It's all around us. The more moisture in the air, the more muggy or humid the air feels.
- The second is instability. This is how air molecules rise and mix naturally in the atmosphere. Warm air likes to rise like a balloon and cold air tends to sink like a rock.
- The third is a lifting mechanism. This is something that pushes the air molecules up into the sky. It can be cold front or even air flowing up and over a mountain.



When there's the right amount of warm, moist air is pushed up into the atmosphere, it can form cumulonimbus clouds and thunderstorms.

Have you ever watched what happens when rain falls at your house? Does some of the rain soak into the ground or does it leave a puddle? Some of the water will stay in the soil to help the flowers and grass grow. Some of the water will sink further below the surface and become part of the aquifer and the water between rocks that many of us use for drinking water.

When we get too much rain at one time, floods occur. Floods can happen near rivers and streams, in streets, parking lots, and even in your yards. Flooding can happen quickly after a heavy rain, because it may take some time for the water to soak into the ground. It's important to stay safe and avoid going into flooded areas. Remember when flooding, **TURN AROUND, DON'T DROWN**.



THUNDERSTORM WORD SEARCH



WINDS SUMMER SPRING INSTABILITY HAIL
 MOISTURE CUMULONIMBUS SAFETY LIFT
 LIGHTNING THUNDERSTORMS INGREDIENTS



Thunderstorms can bring all kinds of extreme weather including: heavy rain, hail, strong winds, flash floods, and even tornadoes. When thunderstorms produce large hail, damaging winds or tornadoes, they are called Severe Thunderstorms.

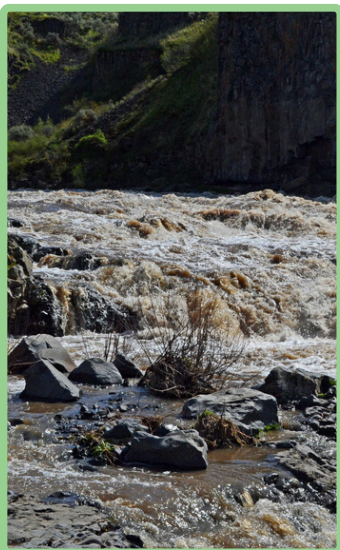
The peak time to see thunderstorms around Spokane is from mid spring through summer, especially in the afternoon and evening hours. On average, the Inland Northwest experiences up to 2 tornadoes a year, while severe thunderstorms can happen around 15 times a year.



Did you know you can estimate how far away a thunderstorm is? All you have to do is to count the number of seconds between the flash of lightning and the rumble of thunder. For every 5 seconds, the storm is 1 mile away.

So, if you count up to 10 seconds, how far away is the storm?

What if you count up to 30 seconds, how far away is the storm?



Envirokids is a collaborative effort among multiple environmentally focused agencies in the Spokane region working to provide locally relevant educational resources to teachers and families.

When Thunder Roars, Go Indoors!

STOP all activities.

Seek shelter in a substantial building or hard-topped vehicle.

Wait 30 minutes after the storm to resume activities.



www.lightningsafety.noaa.gov

