



# BACKYARD ADVENTURES

## LITTLE LAB WEEK 6: CLOUDS & STORMS

EVER WONDER . . . HOW CLOUDS ARE FORMED?

### What we learned this week:

- Clouds are made of tiny droplets of water and ice.
- There are 3 major types of clouds: Cirrus, Stratus and Cumulus.
- Why thunder and lightning happen.

### Curiosity Circle

Today Captain Curiosity had lots of questions about clouds and thunderstorms. We looked closely at the cloud pictures we pulled out of the mystery box and sorted them into three main types: cumulus, stratus and cirrus. Next, we did an experiment to learn what clouds are made of. We also explored the answers to these “Ever wonder?” questions: **Ever wonder how clouds are formed?** Clouds are made up of tiny drops of water and ice crystals that are floating in the sky, being pushed along by the wind. **Ever wonder if all clouds are the same?** Though all clouds are made up of water and ice, scientists have given different clouds different names, depending on how they look and how high up in the sky they are. There are three main types of clouds: cumulus, stratus, and cirrus. Cumulus clouds are big, fluffy clouds that tend to be lower in the sky. They look a lot like big fluffy pillows. Stratus clouds look flat like pancakes and tend to be low in the sky as well. Stratus clouds might remind you of a low gray blanket. Cirrus clouds are curly, wispy clouds that look a bit like curly feathers. They tend to be the high up in the sky. **Ever wonder if you can touch a cloud?** Yes, on the next foggy day! Fog is formed by stratus clouds that are really close to the ground. **Ever wonder why clouds sometimes change color?** Clouds are most often white because they reflect sunlight, which also usually looks white. Clouds sometimes change colors at sunrise and sunset because they are reflecting color changes in the sunlight itself. Clouds appear gray when they become so heavy with water that the sunlight cannot get through them. This often means a storm is coming! **Ever wonder where rain comes from?** Sometimes heavy, grey clouds get so full of water that they can't hold anymore (kind of like a really wet sponge). When this happens, the water falls out. This is what we call rain! **Ever wonder where lightning comes from?** Lightning also comes from clouds. It happens when small bits of frozen raindrops bump into each other inside a cloud, making electricity! Sometimes this electricity escapes from the cloud and connects to the Earth. This is what you see as a lightning bolt. **Ever wonder what causes thunder?** Thunder is actually caused by lightning! Lightning bolts are extremely hot; this causes the air around them to explode outward in vibrations. These vibrations are what we hear as thunder. Because light travels faster than sound, we usually see the lightning before we hear the thunder. If you see lightning and hear thunder simultaneously, the storm is directly overhead!



### Curiosity Centers

- ◆ **Discovery Activity:** we made rain clouds using sponges in the water table.
- ◆ **Manipulative Activity:** we made different types of clouds on construction paper using puffy cloud paint.
- ◆ **Art Activity:** we made a cloud collage, then added raindrops and lightning.

### The Roundup & The Big Deal

We made our own musical thunderstorm, learned a fun song and made it rain all over the classroom!

### Hey, Hey Word of the Day: CUMULUS

### Curiosity @ Home

This week at home, make cloud dough by kneading together 3 cups of flour and 1/2 cup of oil. Add enough water to make the dough soft and pliable, then use your dough to make cloud forms. Use real clouds as your models! (Be sure to store in the refrigerator when done playing.) Also, find cloud pictures in the sky, and make up stories about each one. Can you spot a dog? A flower? A dragon?



## Songs & Poems

**C-Zone Song** (to the tune “I’m a Little Teapot”)  
Welcome Song  
Welcome to the C-Zone  
It’s time for us to start  
Exploring and learning  
We’ve all got a part  
(Spoken) So let’s fasten up our lab coats and get curious!

**Song to the Captain** (to the tune “Wheels on the Bus”):  
Clouds fill up with water drops (What?)  
Water drops (What?)  
Water drops! (What?)  
Clouds fill up with water drops (What?)  
Then it all rains down!

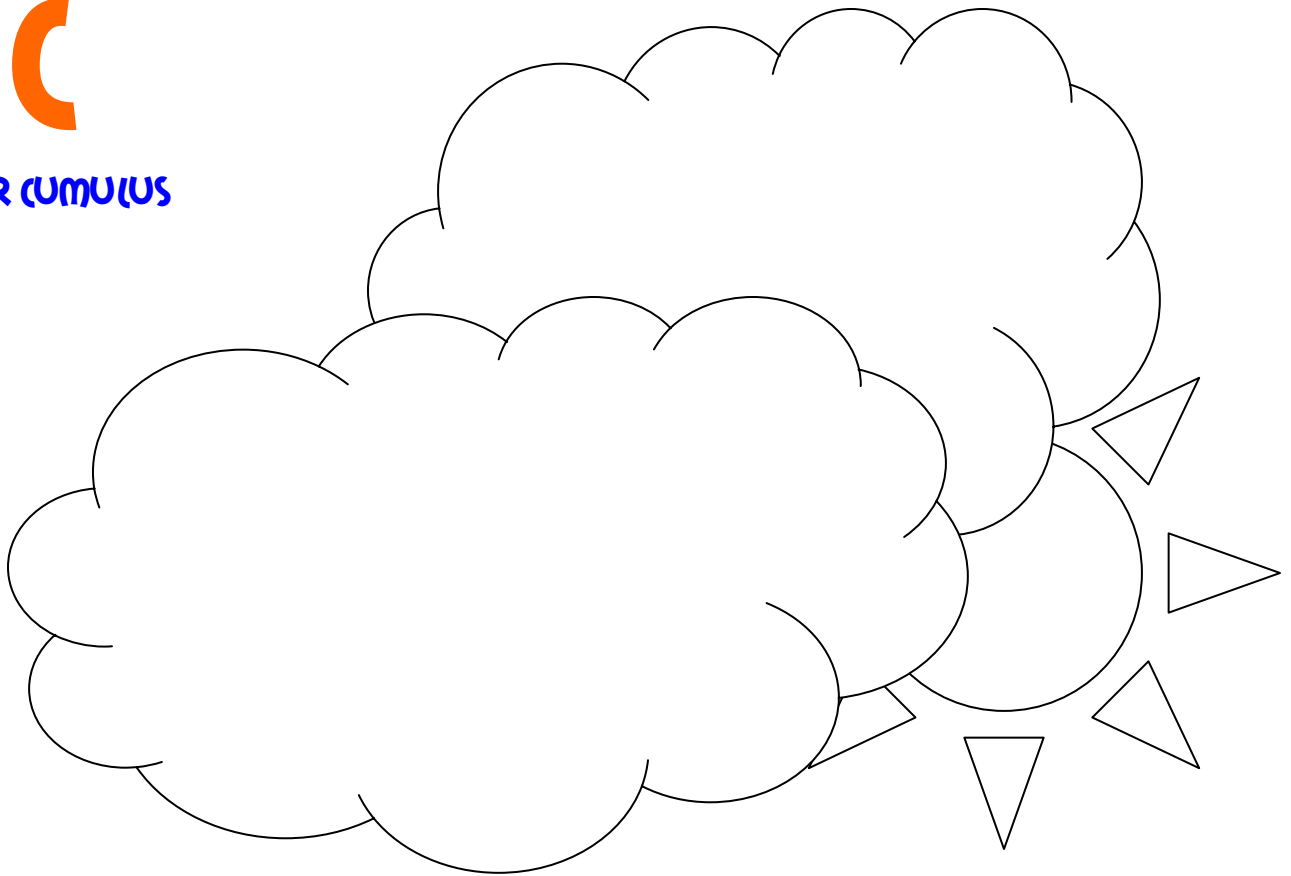
Lightning strikes and then comes thunder (What?)  
Then comes thunder (What?)  
Then comes thunder. (What?)  
Lightning strikes and then comes thunder (What?)  
Now who wants to tell the Captain?

**I’m a Little Cloud** (to the tune “I’m a Little Teapot”)  
I’m a little cloud  
Formed way up high.  
From water droplets in the sky.  
When my drops get heavy they will fall  
And rain will come upon us all.

**C-Zone Goodbye Song**  
Goodbye from the C-Zone  
It’s time for us to go  
The learning never stops  
Now tell me what you know!



**IS FOR CUMULUS**



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