

WEATHER

STEM ACTIVITIES



CLOUD IN A JAR

This cloud in a jar activity can be so fun and simple and spark curiosity in kids.



TORNADO IN A BOTTLE

Make your own tornado in a bottle.



WATER CYCLE IN A BAG

Learn about the water cycle with this easy water cycle in a bag experiment.



RAIN CLOUD IN A JAR

Here's an easy and fun rain cloud in a jar the kiddos are going to love!



FOAM RAIN CLOUD

Make a visual model of a rain cloud for young kiddos.



CLOUD VIEWER

Make your very own cloud viewer and take it outside for a fun cloud identification activity.

MASON JAR SCIENCE



RAIN CLOUD IN A JAR 2



If you are putting together a weather theme for April showers, here's a easy and fun rain cloud in a jar the kiddos are going to love! Science doesn't get much simpler than a sponge and a cup of water. Explore weather science and rain clouds. Where does rain come from? How do clouds make rain? These are all great questions that kids love to ask. Now you can show them how a cloud works with this easy to set up a rain cloud model.

SUPPLIES

Sponge
Blue food coloring
Jar
Pipette

STEP 1: Get the sponge slightly damp and put it on top of a jar.

STEP 2: Color some water blue.

STEP 3: Use a pipette to transfer the colored water to the sponge.

THE SCIENCE

This rain cloud model is an easy weather activity for Spring science and a great way to show how clouds hold water until they can no longer hold it and then it rains!

Rain comes from clouds and clouds are formed by water vapor rising in the air. These water molecules will clump together and eventually form a cloud you can see. These water droplets will attract more water droplets and the cloud will get heavier and heavier.

Like a cloud, the sponge will eventually get over-saturated and start to drip through to the jar below. When a cloud gets filled with water, it releases the water in the form of rain.

TYPES OF CLOUDS

Cumulus: low to middle clouds that look like fluffy cotton balls.

Stratocumulus: low clouds that look fluffy and gray and may be a sign of rain.

Stratus: low clouds that look flat & gray, and spread out, may be a sign of drizzle.

Cumulonimbus: very tall clouds that span low to high, a sign of thunderstorms.

Cirrocumulus: high clouds that look fluffy like cotton balls.

Cirrus: high clouds that look wispy and thin and appear during good weather.

Altostratus: middle clouds that look flat and gray and are usually a sign of rain.

Alto cumulus: middle clouds that look small and fluffy.

Rain Cloud Model Science Investigation



Big Question: How do clouds make rain?

Our Model:

In this investigation, a sponge represents a cloud holding water in the sky. As more water collects in the sponge, it eventually becomes too full, and the water begins to fall — just like rain falling from a cloud.

My Prediction:

What do you think will happen when water is added to the sponge cloud?

My Observations:

What did you notice as water was added to the sponge?

When Did the Rain Begin?

What happened when the sponge became full of water?

Draw Your Rain Cloud Model:

Draw the sponge cloud and the rain falling into the jar.

What Did You Learn?

Why do clouds eventually release rain?



Think Like a Scientist:

What might happen if you added the water faster?

What might happen if the sponge were smaller?

Science Connection:

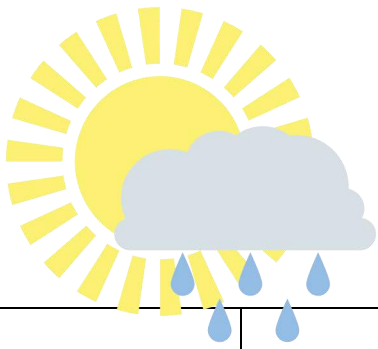
Clouds are made of tiny water droplets in the sky. As more droplets collect together, they become heavier. When the cloud can no longer hold the water, the droplets fall to Earth as rain.

Optional Extension - Journal Prompt

Look outside and observe the clouds.

Do the clouds look thick and dark or thin and light?

What do you think the weather might be today?










MY WEATHER CHART

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday



MY WEATHER LOG

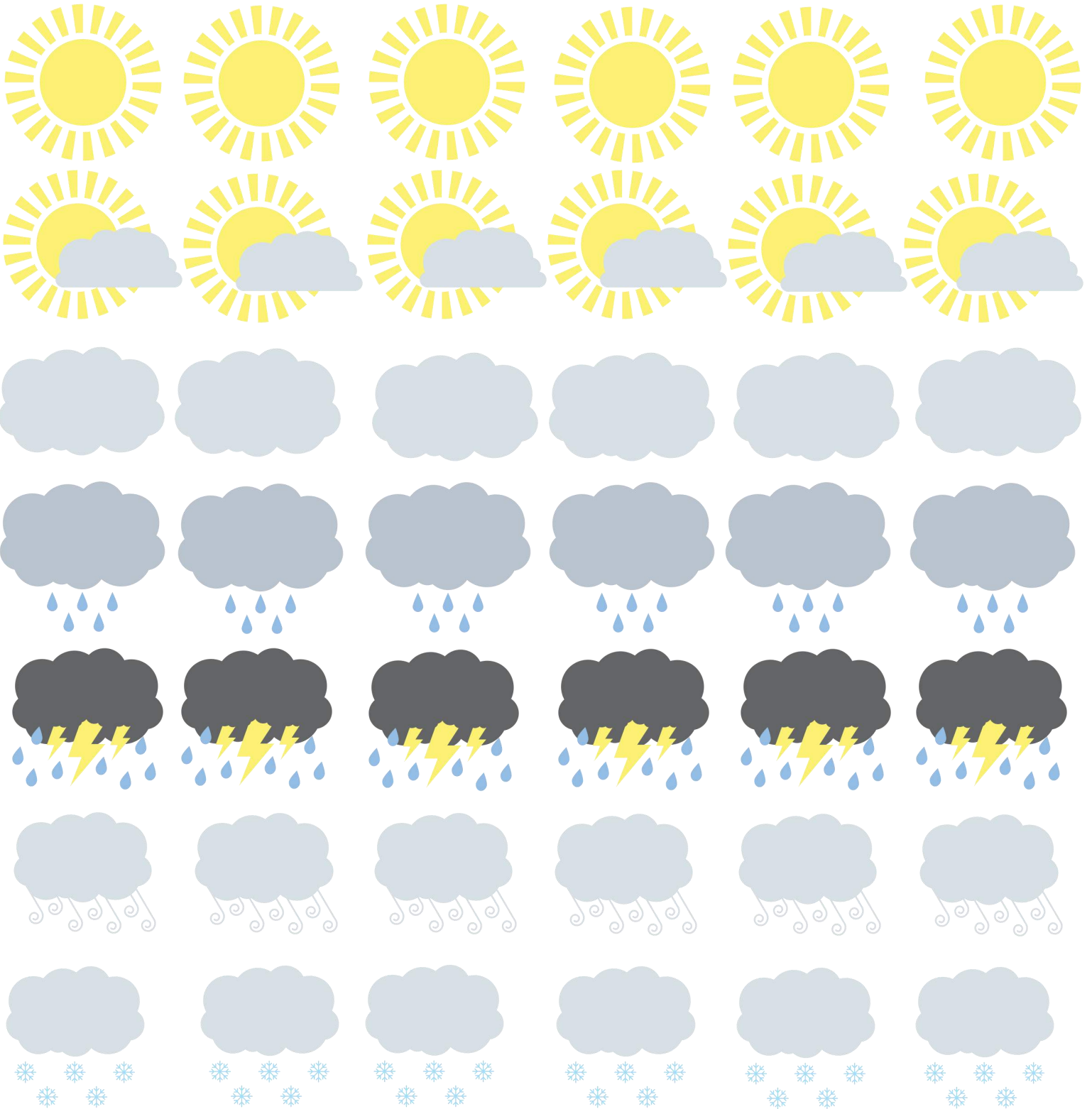
Log the number of days for each type of weather.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
 Full Sun							
 Partly Sun							
 Cloudy							
 Rain							
 Thunderstorm							
 Windy							
 Snow/Ice							

MY WEATHER STICKERS

Print on stick paper and cut out to place on the weather chart.

Or print on regular paper and use tape or glue dots.



TWO WEEK WEATHER OBSERVATION CHART

DATE	WEATHER CONDITION	TEMPERATURE	WIND SPEED	PRECIPITATION TYPE	CLOUD COVER	MOOD OR FEELING

Date: The date of the observation.

Weather Condition: A description of the weather (sunny, cloudy, rainy, snowy, etc.).

Temperature: The temperature of the day (could be recorded as hot, warm, cool, cold).

Wind Speed: A simple description of the wind (calm, breezy, windy).

Precipitation Type: Whether there was rain, snow, sleet, or no precipitation.

Cloud Cover: A simple description of how much of the sky is covered by clouds (clear, partly cloudy, mostly cloudy, overcast).

Mood or Feeling: A fun section where students can express how the weather makes them feel (e.g., happy, sleepy, excited).