

# WEATHER WATCH

TEACHER GUIDE

WONDER



# PLANNING

Here's a suggested schedule for this kit! The activities should be completed in order, but you can choose when the lessons take place over time.

ACTIVITY INFORMATION	SECTION	TIME REQUIRED	DAY/ LESSON
<b>ACTIVITY 1: BOTTLED UP</b> Begin your weather journey with a cloudy experiment. <b>Time required: 1 h</b>	<input type="checkbox"/> Weather in a Bottle	60 minutes	Day 1
<b>ACTIVITY 2: PUFFY AND WHITE, MEAN OR NICE</b> Use these three experiments to understand the process of cloud formation. <b>Time required: 2 h</b>	<input type="checkbox"/> How Clouds Work	60 minutes	Day 2
	<input type="checkbox"/> Little Droplets in my Bottle	30 minutes	Day 3
	<input type="checkbox"/> What do Clouds Mean?	30 minutes	Day 4
	<input type="checkbox"/> My Weather (Making a Windssock)	30 minutes	Day 5
	<input type="checkbox"/> My Weath		

**ACTIVITY 3: WATCHING THE**

*Full schedule available with purchase*

# 1

## activity

# BOTTLED UP

Students see weather in the sky and in pictures, but not in a bottle. In this activity, your student will be introduced to weather using a fun experiment where they model a cloud in a bottle.

## WEATHER IN A BOTTLE

### Making a Model

- In this experiment, your student will be making a model of a cloud in a bottle.
- You will need to perform the steps involving the match for this experiment. If your student wants to engage in these steps, you can have them help by blowing out the match as you hold it.

### SAFETY:



**WARNING! Be careful with fire and flame. Don't use in windy areas or near objects that can catch fire.**

**WARNING! CHOKING HAZARD - Small parts. Not for children under 3 years.**

- Your student should find that when they squeeze the bottle, the inside looks clear, but when they release it a cloud or fog forms on the inside of the bottle.
- For some added fun, after students observe the cloud in a bottle, they can remove the cap of the bottle to let their cloud out. Squeezing the bottle with the cap off can make a nice puff of cloud come out.
- There are many items from this and future experiments that are reused. Check the packing list to see when items will be needed again.
- Clouds are part of many types of weather, so introducing weather beginning with clouds will help them recognize this.



### REFLECT

**?** Draw what the bottle looked like before you added the match and after.

**Answer:**

- The before bottle should be a clear bottle with a small amount of water in the bottom of it.
- The after bottle should show the bottle with the cloud, or water vapor and water droplets in it.

### What Does It Mean?

- In this subsection, your student will be provided some background information on clouds as it relates to their experiment.
- Each of the variables in their model represents a different aspect of clouds in nature. This will be explained to your student.
- Cloud seeding is a weather modification technique used to form clouds in an effort to increase moisture and rainfall for crops in areas with dry climates. Cloud seeds are more technically known as cloud condensation nuclei, where nucleation occurs when water collects around dust or pollution particles in the air.
- Students will learn the vocabulary terms cloud, cloud seeds, model, and temperature.

## MULTIPLE AGES AND ABILITIES:

The names of the types of clouds that result in snow, rain, or hail are not provided to your student as these are not required for your student's learning at this level. However, for older students, or students who are particularly interested in clouds, the types of clouds that result in rain are cumulus or cirrus clouds. Cumulonimbus clouds result in hail, while altostratus clouds result in snow.



### THINK ABOUT IT!

? Question: Match the clouds to the type of weather they bring.



Hail

Rain

Snow

## WATCHING THE WEATHER

Clouds can mean different types of weather. Has your student ever seen clouds move? This activity will get your student thinking about how clouds are related to more types of weather.



### LEARNING GOALS:

I can observe and describe local weather conditions to find patterns.  
I can identify where water is on Earth and the state of matter it is in.

## MY WEATHER



### PREPARATION AND SUPERVISION

• In this experiment, your student will be creating a windsock and tracking their local weather for four days.



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Kit	SU-WEATWT
Instructions	IN-WEATWT
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