



TEACHER GUIDE





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
ACTIVITY I: BOTTLED UP			
Begin your weather journey with a cloudy experiment.	· Weather in a Bottle	60 minutes	Day 1
Time required: 1 h			
ACTIVITY 2:	· How Clouds Wor	k 60 minutes	Day 2
PUFFY AND WHITE, MEAN OR NICE Use these three experiments to understand the	 Little Droplets in my Bottle 	30 minutes	Day 3
process of cloud formation. Time required: 2 h	· What do Clouds Mean?	30 minutes	Day 4
ACTIVITY 3: WATCHING THE WEATHER Record your own weather and make predictions based on weather patterns. Time required: 3 h 30 min	 My Weather (Making a Windsock) 	30 minutes	Day 5
	· My Weather (Tracking the Weather – Day 1)	30 minutes	Day 6
	· Types of Weathe	r 30 minutes	Day 7
	My Weather (Tracking the Weather – Day 2)	30 minutes	Day 8
	· My Weather (Tracking the Weather – Day 3)	30 minutes	Day 9
	 Where Weather and Water Work Together 	30 minutes	Day 10
	· My Weather (Tracking the Weather – Day 4)	30 minutes	Day 11
ACTIVITY 4: CRAZY WEATHER	· Severe Weather	30 minutes	Day 12
Go to the extreme with a severe weather model.	· Funnel Weather	30 minutes	Day 13
	· Ready for Weath		Day 14
Time required: 2 h	· My Weather Stor	y 30 minutes	Day 15
ACTIVITY 5: CONTINUE YOUR WEATHER JOURNEY	· Testing Temperatures	30 minutes	Day 16
Use any or all of these fun activities to keep the	· Weather in Book	s 45 minutes	Day 17
learning going.	· Pine Cone Humidity Tracker	30 minutes	Day 18
Time required: 30+ min	· Instant Snow	30 minutes	Day 19

9+ hours

MY WEATHER STORY

CONTENT

- It doesn't matter what weather experience your student chose, but it can be helpful to connect their experience back to one of their weather journaling days or the day they complete this section. This will allow students to have an easier time putting their storyboard together.
- If students would prefer, they can create their storyboard using a slides presentation or other media they have available.



CONTINUE YOUR WEATHER JOURNEY

There are four ideas in the Student Workbook that can extend the learning experience. You can let your student decide which ones to pursue, or you can recommend options based on your available time and materials. There are opportunities for several types of learning styles and preferences, as well as ways to get more use out of the kit materials.

TESTING TEMPERATURES

HANDS-ON

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- In this 5-day experiment, your student will measure the temperature of water, soil, and air in direct sunlight.
- You may need to help your student take the temperature measurements by having them place their thermometer for 2 minutes and then recording the temperature.
- Scientific measurements are taken in Celsius. This can be a great opportunity to incorporate a measurement unit into your science plan.

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RESEARCH

- Books are a great resource for more information on weather. Help your student visit a local library or bookstore to look at books in person. You can also have them find books online read aloud by the authors on video.
- There are other types of extreme weather that we did not discuss in this kit. You can use this as an opportunity to introduce your student to those types of weather.
- If you want to take this one step further, you can have your student report on the types of weather they researched.
- Home Science Tools offers books on weather that may be appropriate and interesting to your student as well.

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PINE CONE HUMIDITY TRACKER

HANDS-ON

- You can help your student find a pine cone from a local park or in an area where they live.
- This experiment is a simple weather observation opportunity to track the changes in humidity day to day.
- If your student is interested in the seeds of the pine cone, Super Seeds, another Wonder Level Science Unlocked® kit, is a great kit to work on next!

- Instant snow is a fun experience for any student.
- It is a great opportunity to introduce a snow-like substance to students who have not experienced snow before.
- If your student lives in an area where it snows or has played in snow before, you can have them compare and contrast instant snow and real snow.
- You can purchase instant snow, and other fun weather tools and kits, from Home Science Tools.

GLOSSARY

Cloud - a group of tiny water droplets in the sky.

Cloud seeds - small pieces of dust water can stick to.

Condensation – the process of water changing from a gas state to a liquid state.

Evaporation - the process of water warming enough to change into water vapor.

Gas – a state of matter that can change its size and shape.

Hail - frozen rain that falls to the Earth.

Liquid - a state of matter that keeps its size, but can change its shape.

Local – specific to an area or something that is nearby.

Matter - all the stuff in the universe.

Model – a smaller version of an object that can be used to help people understand the object.

Pattern - something that repeats.

Precipitation - the process of water coming back to Earth.

Prepare - take action to get ready for something.

Rain - drops of water that fall from clouds above Earth.

Solid - a state of matter that keeps its size and shape.

Snow – airy flakes of ice that form when water vapor freezes.

State of matter - the different forms matter is in; if the matter is a solid, liquid, or gas.

Temperature - how hot or cold something is.

Water vapor - water in a gas state.

Weather - what the air outside is like from day to day.

Wind - air moving.

Wind speed - how fast the wind is blowing.



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Kit	SU-WEATWT
Instructions	IN-WEATWTT
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