

KIDS for the BAY

A Project of Earth Island Institute

1771 Alcatraz Avenue, Berkeley, CA 94703

Tel: (510) 985-1602 | Fax: (510)-547-4259

www.kidsforthebay.org

Mandi Billinge, Executive Director/Founder

Experiments and More

Homemade Rain Gauge

Activity Summary

Become a meteorologist (a scientist that studies weather) by making your own rain gauge to track how much rain falls at your house!

Directions

Option 1: Make your rain gauge with a wide-mouthed glass jar or cup

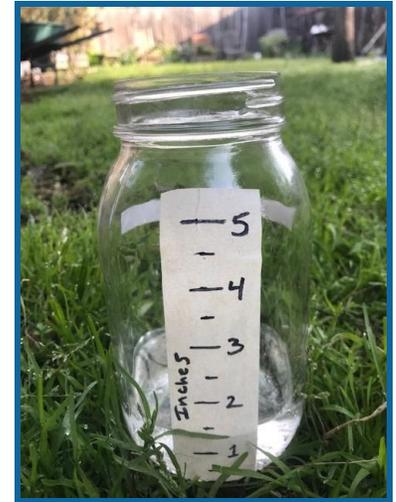
1. Tape a ruler onto the jar or write the numbers from the ruler onto a piece of tape on the jar. Mark every $\frac{1}{2}$ inch onto your jar.
2. Proceed to "Measuring your results" below.

Option 2: Make your rain gauge with a plastic bottle

1. Cut your plastic bottle $\frac{2}{3}$ of the way up.
2. Place the cap end upside down into the bottom end so it fits snugly into the bottle.
3. Tape the two pieces together so they stay in place.
4. On a flat surface, hold a ruler against your bottle and either tape it in place, or mark every $\frac{1}{2}$ inch onto your bottle with a permanent marker.
5. **If you can't find a plastic bottle with a flat base, add a few stones or marbles into the bottle after step 1 and fill the rain gauge with a little water until you have a flat waterline. Then start the zero of your ruler at the top of the water line.

Measuring your results

1. Place your rain gauge outside with rocks or soil around the base so it doesn't fall over in the wind.
2. Each day after it rains, check the amount of rain in the gauge.
3. Write down the rainfall amount based on where the water line hits your ruler number.
4. Pour the water out so you can check again the next day.
5. Write down the rainfall for several days or for the whole month. If you add every day of the month together, you'll know the total rainfall in that month. Use the worksheet on the third page.



Share your experience with us!

Email kidsforthebay@gmail.com to share photos, videos, comments or questions.

Tag us on Instagram and Facebook @kidsforthebay. Use **#EveryoneisanEnvironmentalist** in your posts.

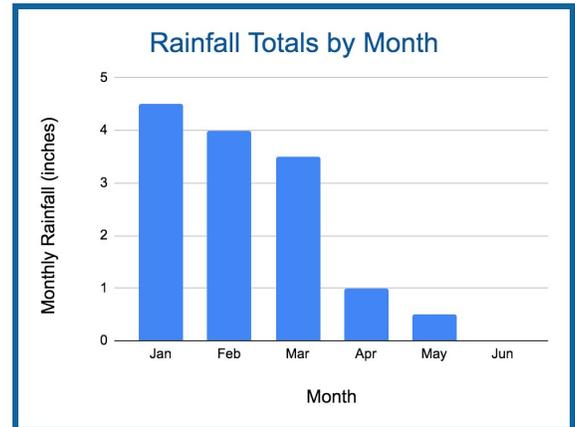
6. Consider: Why do scientists measure rainfall and weather? How does this information help farmers? How do you and your family use weather forecasts?

Further explorations

1. Make a bar graph of your results (see example)
2. [Check your results](#) against other local weather stations:
https://ggweather.com/seasonal_rain.htm

Location

You can make the rain gauge in your home. Then place the gauge outside your house where there is not anything blocking the sky above it like trees or a building. Check in with an adult about where to put it.



Supplies

- Glass jar with a wide mouth or a plastic bottle with a flat bottom
- Scissors
- Ruler or measuring tape
- Tape
- Permanent marker (if marking onto the bottle or jar)
- Pebbles (optional- only if you have a plastic bottle with an uneven bottom)

Additional resources and related activities

- Look for our Cloud Spotting Activity on our [website](#)!
- Watch [this video by NASA](#) on how precipitation (rain and snow) moves around the entire world!
 - NASA First Global Rainfall and Snowfall Map from New Mission:
https://www.youtube.com/watch?time_continue=113&v=ILNC7ldyWVU&feature=emb_logo

Share your experience with us!

Email kidsforthebay@gmail.com to share photos, videos, comments or questions.

Tag us on Instagram and Facebook @kidsforthebay. Use **#EveryoneisanEnvironmentalist** in your posts.

KIDS for the BAY

Monthly Rainfall Log

Scientist's Name: _____ Experiment Location: _____

Month: _____ Predicted Rainfall for the Month: _____

Day of Month	Rainfall (inches)	Day of Month	Rainfall (inches)
1		16	
2		17	
3		18	
4		19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	
		31	

Total Rainfall for the month: _____

Notes or comments:

Share your experience with us!

Email kidsforthebay@gmail.com to share photos, videos, comments or questions.

Tag us on Instagram and Facebook @kidsforthebay. Use **#EveryoneisanEnvironmentalist** in your posts.