



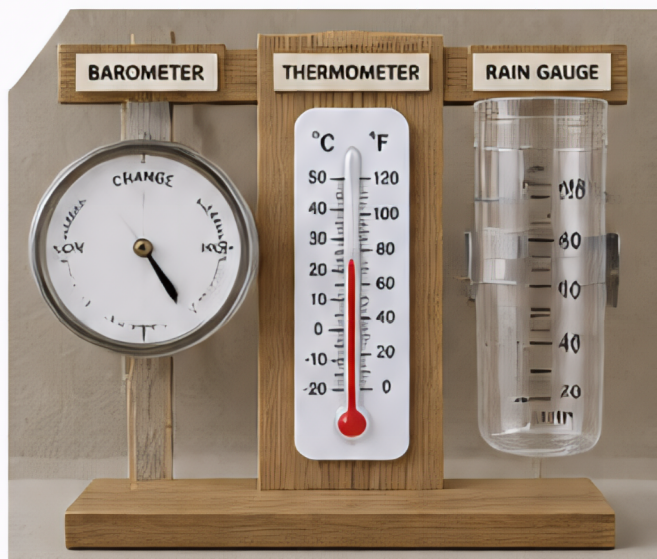
BUILDING A SIMPLE WEATHER STATION

WITH BAROMETER, THERMOMETER & RAIN GAUGE



OBJECTIVE

Build a simple weather station to measure air pressure, temperature, and rainfall.
Record data and observe weather changes over time.



MATERIALS

- 1 jar with lid (wide mouth)
- 1 balloon
- 1 straw
- Tape
- Scissors or box cutter (adult use)
- 1 thermometer (indoor/outdoor)
- 1 clear plastic bottle (straight sides)
- Ruler or measuring tape
- Permanent marker
- Wooden board or sturdy backing
- Nails, screws, or strong glue
- Level (optional)
- Notebook for data
- Pencil

SAFETY

- Ask an adult for help when using tools or cutting.
- Use caution with sharp objects.
- Secure your station so it does not fall in winds.

BUILDING STEPS

1 BAROMETER (Aneroid Style)

- Stretch the balloon tightly over the jar opening and secure with the lid ring.
- Insert the straw through the center of the lid and seal around it with tape so the jar is airtight.
- Tape a paper arrow to the straw on the outside of the lid.
- Draw a scale on a paper circle and label it LOW (left), HIGH (right), and CHANGE (middle).
- Attach the scale behind the arrow.

2 THERMOMETER

- Attach the thermometer to the board in a shaded spot.
- Make sure it is secure and easy to read.

3 RAIN GAUGE

- Cut the top off the plastic bottle.
- Turn it upside down and place it back into the bottom half to form a funnel.
- Mark a vertical scale on the outside in millimeters (mm). Example: 10, 20, 30... up to at least 100 mm.
- Secure the rain gauge to the board.

4 MOUNT YOUR STATION

- Mount all three instruments on the board or stand.
- Keep the station level and in an open area away from trees and buildings if possible.

HOW TO USE

- Check your weather station at the same time each day.
- Record the barometer reading (Low / Change / High).
- Record the temperature.
- Read the rain gauge at eye level.
- Empty the rain gauge after recording.

WHAT DOES IT MEAN?

Barometer: Falling pressure often means clouds or rain may come. Rising pressure often means fair weather.

Thermometer: Shows how hot or cold the air is.

Rain Gauge: Measures how much rain has fallen.



WEATHER LOG

DATE	BAROMETER (Low / Change / High)	TEMPERATURE (°C / °F)	RAINFALL (mm)	WEATHER CONDITIONS (sunny, cloudy, rainy, etc.)	NOTES

THINK & EXTEND

Look for patterns in your data over a week. How does air pressure relate to the weather?
Try making a wind vane or cloud chart to add to your station!