10 Weather Tools Posters

All include a short definition, brief description, fun facts, and a picture.

THERMOMETER

measures air temperature

A thermometer is a weather tool that measures air temperature, or how warm or cold the air is.

Temperature can be measured in degrees Fahrenheit (°F) or degrees Celsius (°C).

In some thermometers, the liquid inside expands and rises when it gets warmer and contracts and falls when it gets cooler. Meteorologists compare temperatures from different times and places to see how the weather changes.

Fun Fa

- Many weathe station digital sensor measu tempe today.
- Water freeze

RAIN GA

measures precip

A rain gauge is a weather tool that measures the amount of precipitation that falls in a certain place over a period of time.

Rain falls into the opening of the gauge and collects inside. Rainfall is

WEATHER SATELLITE

observes weather from space

A weather satellite collects ima and data about Earth's weather from space. It can show cloud cover and help meteorologists watch storms and other weathe systems over large areas.

Meteorologists compare satellit images taken at different times see how weather moves and changes. These images can also them notice patterns in cloud co and storm movement. An examp of satellite data might be an ima showing clouds moving across a region.

WEATHER RADAR

detects precipitation and tracks storm movement

Weather radar uses radio waves to find where precipitation is falling and watch how storms are moving.

The radio waves travel through the air, and some of the energy bounces back when it hits precipitation such as rain, snow, or hail. The returned

Fun Facts

- On many radar maps, green shows lighter precipitation, while yellow, orange, and red show heavier precipitation.
- Weather radar can sometimes pick up birds and insects, not just weather!

ANEMOMET

measures wind speed

An anemometer is a weather tool that measures wind speed, or how fast the wind is blowing. A wind vane measures wind direction instead.

Many anemometers have small cups that spin when the wind blows. The faster the wind blows, the faster the cups spin. Wind speed is often measured in miles per hour (mph) or kilometers per hour (km/h).

- Anemom weather types of
- Some m sound w to meas

HYGROMETER

measures humidity

A hygrometer is a weather tool that measures humidity, or how much water vapor is in the air.

Humidity is usually shown as a percentage. A higher percentage means the air is more humid. For example, a humidity reading might be 65%.

Fun F

- Humid air can m day feel muggy
- Some older hyg human hair bec slightly as humid

WEATHER BALLOON

carries instruments high into the atmosphere

A weather balloon carries a small instrument called a radiosonde high into the atmosphere. As it rises, the radiosonde measures temperature, humidity, and air pressure. Meteorologists can also track the balloon's movement to calculate wind speed and direction.

The radiosonde sends its measurements back to the ground by radio. This helps meteorologists see how conditions change at

Fun Facts

- Weather balloons can rise more than 100,000 feet, or about 20 miles, above Earth.
- Many weather

WIND VANE

measures wind direction

A wind vane is a weather tool that measures wind direction. It shows the direction the wind is coming from and is sometimes called a weather vane.

The vane turns with the wind and points toward the direction the wind is coming from.

For example, if it points NW, the wind is coming from the northwest. Wind direction is usually recorded using compass directions such as N, S, E, W, NE, NW, SE, and SW. Changes in wind direction can be a clue that the weather is changing.

Fun F

- Wind vanes are ofte the ground where bu are less likely to bloc
- Some modern weath electronic sensors t direction.

BAROMETER

measures air pressure

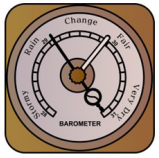
A barometer is a weather tool that measures air pressure, or the pressure from the air around us. It can also show whether air pressure is rising or falling.

High pressure is often linked with fair weather, while low pressure is often linked with cloudy, rainy, or stormy weather. Meteorologists watch pressure changes to see how the weather may be changing.

A barometer reading might be 30.1 inches of mercury (inHg).

Fun Facts

- Air pressure usually decreases at higher elevations because there is less air above you.
- A falling barometer can be a clue that wetter or stormier weather may be approaching.



WEATHER STATION

collects several types of weather data

weather station is a set of struments and sensors that llects weather data at one cation. It can include tools that easure temperature, wind speed, nd direction, precipitation, air essure, and humidity.

eather stations can record easurements throughout the day, ving meteorologists several pieces information about the weather the same place. Example data ght include 72°F, winds from the W at 8 mph, and 0.2 inches of rain.

Fun Facts

- Many automated weather stations collect weather data **24 hours a day**.
- Weather stations are commonly used at **airports** to provide current weather information.

Weather Tools Gallery Walk

Name _____

Date _____

WEATHER TOOL	WHAT IT MEASURES OR OBSERVES	EXAMPLE DATA FROM TOOL	FUN FACT	PICTURE

A sample answer key is included!