

Weather Stations



Weather Station #1: HUMIDITY [Brain Pop](#) PLAY THE MOVIE

1. The amount of water vapor in the air is called_____.
2. The warmer the air the _____water it can hold.
3. Relative Humidity measures how much water the air can hold compared to what it CAN hold.

When air is holding as much water as it can, the Relative Humidity is _____%

4. Think about this: if the air is REALLY warm and REALLY saturated with water, what would it feel like?_____



Weather Station #2: TEMPERATURE

1. Look at the thermometer on the table. What is the temperature in this room in Centigrade (Celsius) _____ Fahrenheit? _____

Look at the thermometers on the screen. [Image](#)

2. The Centigrade thermometer has a different scale than the Fahrenheit thermometer. Scientists use It because it is based on a 100 degree difference between freezing to boiling.
3. What is the freezing point of water in Celsius? _____ Fahrenheit _____
4. At what temperature does water boil in Celsius? _____ Fahrenheit _____
5. Why do you think scientists like the Celsius scale better than the Fahrenheit? _____



Weather Station #3: AIR PRESSURE [Animation](#)

1. What tool do meteorologists use to measure air pressure? _____
2. What is the barometric pressure in this room? Read the barometer at this table. _____
3. High atmospheric pressure leads to a _____ barometer reading. The resulting weather is _____
4. Low air pressure results in what kind of weather? _____

5. Think about what the air pressure would be if a BIG cold front came into Sarasota, resulting in a severe thunderstorm. Would it be 31.1 mm/Hg or 28.1 mm/Hg? Circle your answer and explain. _____



Weather Station #4 DOPPLER RADAR [video](#)

1. The Radar sends out a pulse of _____ which bounces off an object such as a _____.
2. The energy returns to the RADAR which then calculates the distance, _____ and which way the raindrop is _____.
3. Doppler RADAR can detect winds moving in opposite directions from the radar which might be the start of a _____.



Weather Station #5 Dew Point Explained [Youtube](#) Listen for about 30 seconds.

1. The Dew Point is the temperature at which we have to cool the air down to in order for water to _____.
2. When the air outside the cold glass is cooled to the _____, then _____ moisture from the _____ forms on the _____.
3. Warm air holds _____ moisture than cold air.
4. 50% relative humidity on a _____ day means more moisture in the air than on a _____ day.
5. Dew points below _____ are comfortable, while dew points above _____ result in a sticky feeling.

Weather Station #6 Weather Station



Remember your units!!

outdoor temp _____ dew point _____ humidity _____
 air pressure (include direction) _____ future forecast _____
 current wind speed _____ peak wind speed _____ average wind speed _____
 rainfall since midnight (large numbers) _____ monthly total _____
 yearly total _____ heat index (press button on dew point) _____