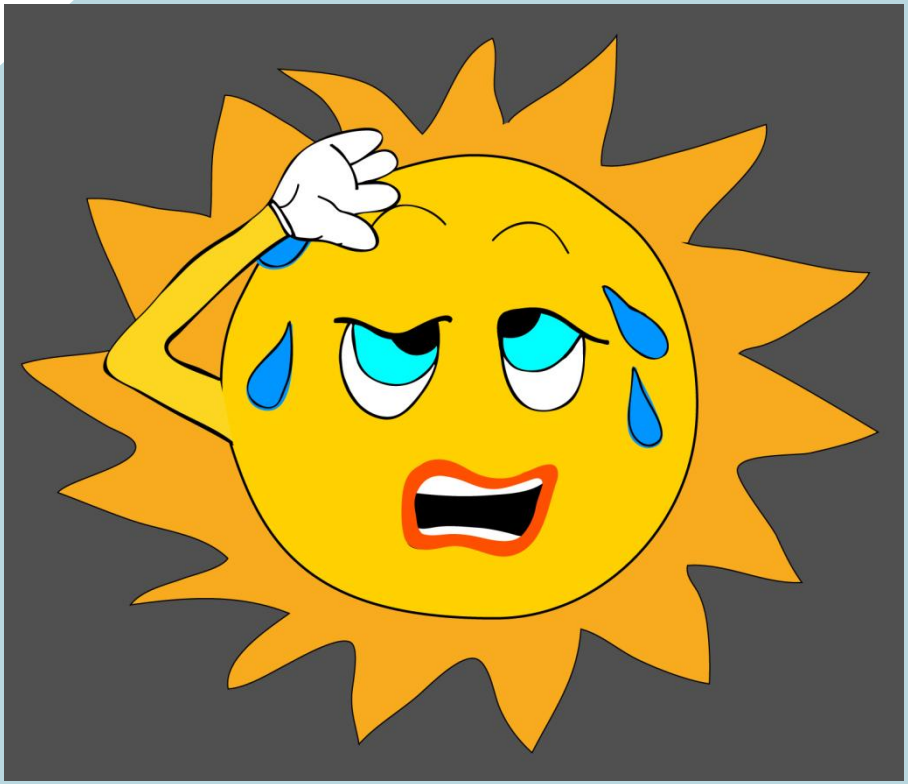

MONDAY NIGHT
HAPPY ABOUT THE STATE OF MY FOLLICLES YAY HAIR
STRAIGHT AND REASONABLY SIZED 'DO
TUESDAY MORNING
TEARS OR SWEAT WHO CAN EVEN TELL RIGHT NOW
YOU PROBABLY SAW THIS FROM YOUR HOUSE YESTERDAY MORNING

HUMIDITY



HUMIDITY

Humidity is a measure of how much water vapor that is in the air

Water vapor is water in the gas phase and it has evaporated into the air; it is invisible

HUMIDITY

Warmer air is able to hold more water vapor since there is more free space to hold water

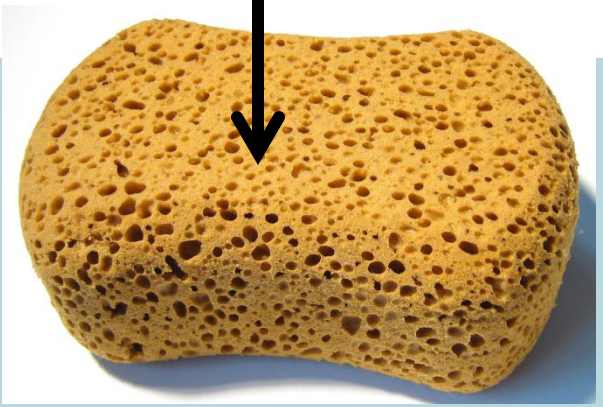
Think about air like a sponge, the larger the sponge, the more water it can hold

Cold Air

Little Room for Water Vapor

Warm Air

Lots of Room for Water Vapor



HUMIDITY EFFECTS

High humidity is uncomfortable for humans because it makes it difficult for sweat to evaporate and cool our bodies.

High humidity can short out electronics

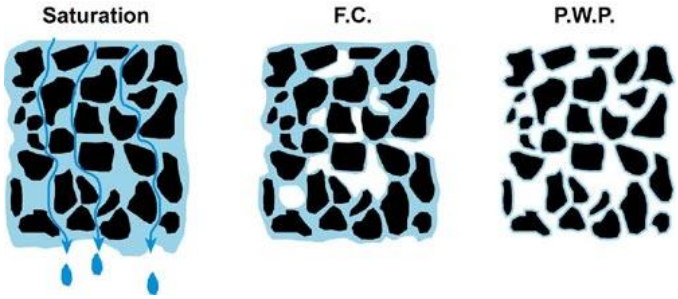
High humidity can lead to the growth of mold and mildew in buildings

Low humidity can make breathing difficult and cause dry skin

Low humidity can make objects brittle

Low humidity can cause build up of static electricity causing electronics to shut down

SATURATION POINT



When the air is holding as much water vapor as possible at a certain temperature it has reached its saturation point

Think about a sponge, at some point it can no longer hold any more water

Dew point is the temperature when saturated air has cooled and will start to condense onto another surface

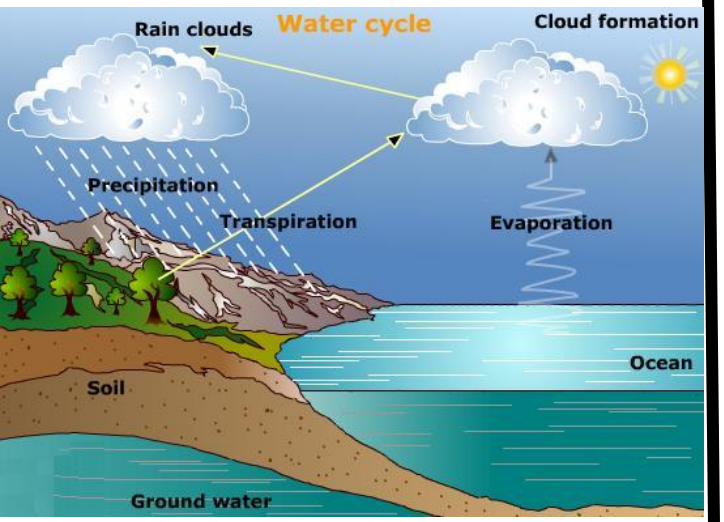
DEW AND FOG

Early in the morning, the air temperature usually cools, which allows water to condense

When this cooling and condensing causes water to form on grass and other surfaces, we call it dew

If there is enough water vapor that condenses you can get clouds close to the ground which are called fog

CLOUDS



Similar to dew forming on grass, water vapor must have something to condense on to form clouds in the upper layers of the troposphere

As water vapor rises into cooler air, it condenses on dust and other particles

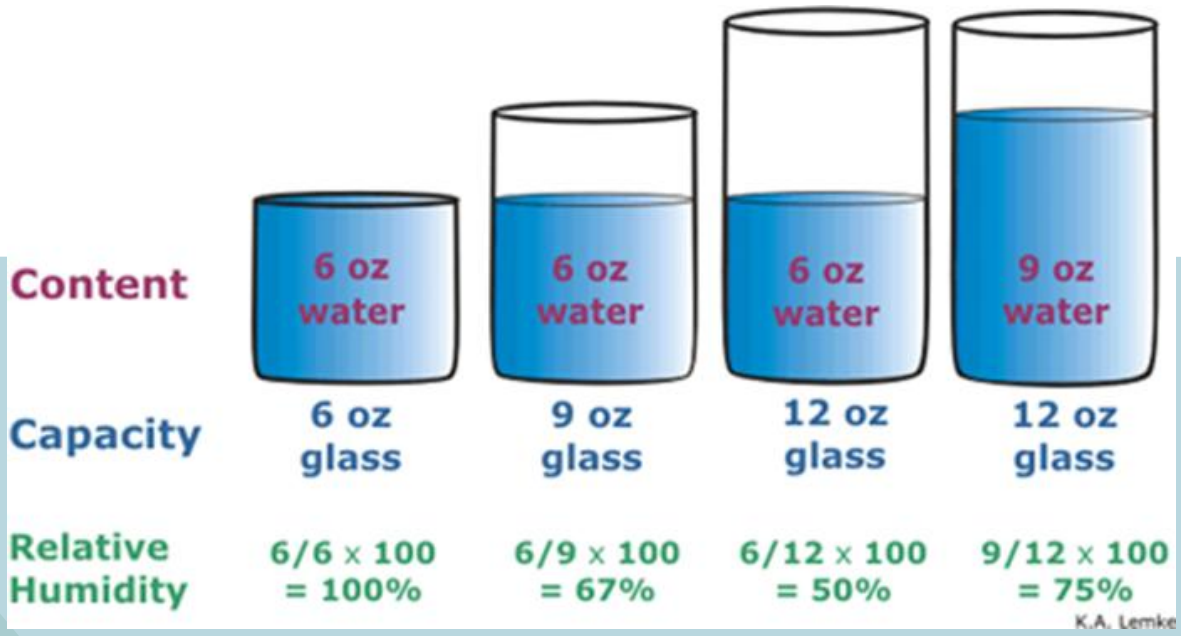
The water drops and ice crystals are so light, they stay aloft and collect more water, forming clouds

The droplets/crystals continue to stay aloft until they become too heavy and fall as precipitation

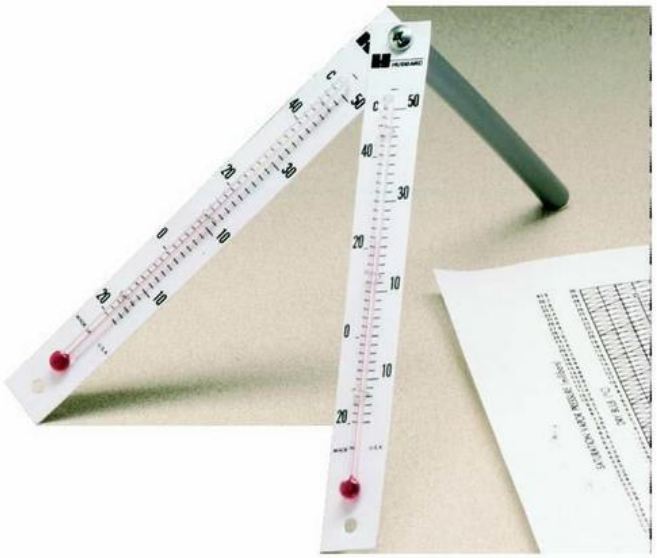
RELATIVE HUMIDITY

Relative humidity is a measure of how much water vapor is in the air compared to the maximum amount of water vapor air can hold at that temperature

Relative humidity is written as a percentage (%)



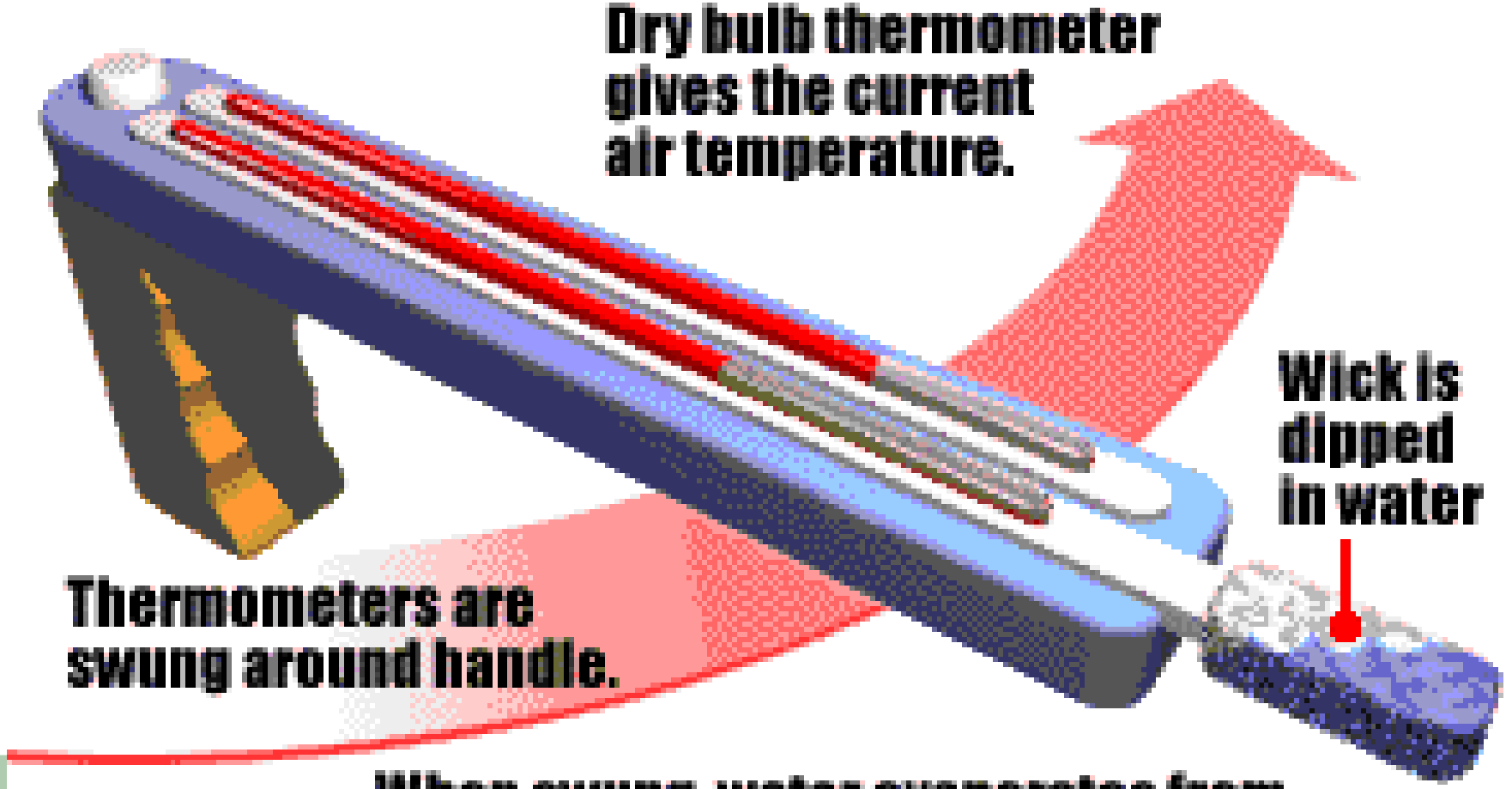
RELATIVE HUMIDITY



Relative humidity is measured with a sling psychrometer

Sling psychrometers have a wet-bulb thermometer and a dry-bulb thermometer

The bigger the difference between the two readings on the thermometers, the lower the relative humidity in the air


Dry bulb thermometer gives the current air temperature.
Wick is dipped in water
Thermometers are swung around handle.
When swung, water evaporates from the wick, cooling the wet-bulb thermometer. Dryer air results in lower temperature.

SUMMARY

1. Give 2 examples of countries or regions on Earth that have high humidity.

2. Give 2 examples of countries or regions on Earth that have low humidity.

3. Why is high humidity so uncomfortable for humans?

4. What role does humidity play in the water cycle?