

6.2

Evaporation & Humidity

What is evaporation?

The _____ by which _____ becomes a _____ called _____.

Investigate:

What is the affect of evaporation on temperature?

Starting temp.
1 minute
5 minutes

wet fabric Dry fabric

Where did the water go?

When water evaporates, what happens to the amount of water vapor in the air?

words
NUR

When energy leaves an object, does the object get warmer/cooler?

Go back to
Vol on v.!

What is
water
vapor?

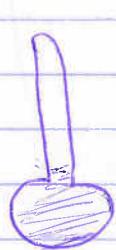
The _____ phase.
of _____

What is
humidity?

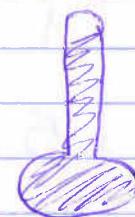
in the _____.

What does
saturated
mean?

When the _____ contains as
much _____ as
it can.



Cold
Air



Warm
Air

More dense

Less dense

(slide 11)
In your
own words,
Why ➔

Relative
humidity

➔ How _____ often
describe _____

➔ Measured in _____ ().

➔ Compares _____ of _____
the air to amount needed to _____

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Calculating Relative Humidity

$$\text{Relative Humidity} = \frac{\text{mass of water vapor}}{\text{mass of saturated vapor}}$$

remember = mass is the weight in grams

Example 1 = (see chart)

5°C calls for 5 grams to saturate,
this is the denominator.

If the mass of water vapor is
5g, that becomes the numerator.

$$\frac{5g}{5g} = \frac{1.00}{5} \times 100 = 100\% \text{ RH}$$

(or move)
up

Example 2 = 15°C needs 10.0 gram to saturate,
this is the denominator.

If the mass of water vapor is
5g, that becomes the numerator.

$$\frac{5g}{10g} = \frac{50}{100} \times 100 = 50\% \text{ RH}$$

(or move)
up