

What are clouds?

A cloud is a large collection of very tiny droplets of water or ice crystals. The droplets are so small and light that they can float in the air.

How are clouds formed?

All air contains water, but near the ground it is usually in the form of an invisible gas called water vapor. When warm air rises, it expands and cools. Cool air can't hold as much water vapor as warm air, so some of the vapor condenses onto tiny pieces of dust that are floating in the air and forms a tiny droplet around each dust particle. When billions of these droplets come together they become a visible cloud.

Why are clouds white?

Since light travels as waves of different lengths, each color has its very own unique wavelength. Clouds are white because their water droplets or ice crystals are large enough to scatter the light of the seven wavelengths (red, orange, yellow, green, blue, indigo, and violet), which combine to produce white light.

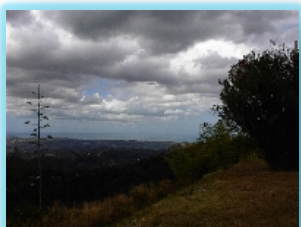


Cirrus Cloud – predicts good weather but it may change tomorrow.

Cirro Cumulus – clear cold weather on nice winter days



Strato Cumulus – probably not rain today



Activity

Draw the clouds you see today!

Which way is the wind blowing? Get your finger wet, then hold determine what direction that is. There may be a compass on your phone. _____

Pick up a few dried leaves from the ground. Toss them in the air to see how hard the wind is blowing (and from which direction)

The wind is:

None – light – mild – steady – gusty – strong – heavy

Today feels:

Look for a thermometer in your Urban Field Guide and record the temperature. You may have to wait a few minutes.

Temperature today _____

How does the weather feel to you? Circle one.

cold – chilly – cool – fair – mild – warm – hot

Tomorrow will be:

Use your phone app to find out what the weather will be like tomorrow. What is the forecast?

Forecast

Wind direction (if you don't know the compass points use landmarks example from the flagpole toward the parking lot)

From _____ to _____

The wind is:

None – light – mild – steady – gusty – strong – heavy

How does the school building affect the wind? Go to different places near or away from the building and check the wind. What did you discover?

