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## **WIND and CLOUDS – Earth & Sky – SLIDE SHOW SCRIPT (Grades 3-6)**

*This slide show is intended to be used as a preview or review of the basic cloud types.*

These slides show examples of the basic types of clouds – cumulus, cirrus, and stratus.

1. CUMULUS

**Cumulus** clouds, which generally appear puffy, are formed when there is lots of vertical air movement, so rising updrafts of warm air carry moisture upward.

2. CUMULUS

As the air rises into cooler regions, the water vapor condenses into water droplets, forming billowy cumulus clouds.

3. CUMULUS

Cumulus clouds are often called fair-weather clouds because they are associated with clear skies and sunny weather.

4. CUMULONIMBUS

**Cumulonimbus** clouds, or thunderheads, are much larger and contain much more water than regular cumulus clouds. They are formed by extreme upward movement of warmer air into cooler air. They can reach heights of 40,000 to 75,000 feet, and they often produce violent thunderstorms of rain and sometimes hail.

5. CIRRUS

The highest clouds are **cirrus** clouds, which usually do not contain as much water as cumulus clouds. At these heights (around 40,000 feet), moisture from rising air turns directly to ice crystals.

6. CIRRUS

These clouds may appear flat, or puffy, or they may be blown by the wind into thin wisps and streamers known as mares' tails.

7. CIRRUS

Cirrus clouds rarely produce precipitation themselves, but they often indicate an approaching warm front, which may bring other clouds and precipitation in two to three days.

8. STRATUS

**Stratus** clouds usually cover a large portion of the sky, and they appear flat and gray. They may be high or low, and they may be any shade of gray from almost white to very dark. They form when there is relatively little vertical air movement.

9. STRATUS

When updrafts of warm air meet a large, still layer of cooler air, the moisture cools and condenses into a relatively flat layer of clouds.

10. STRATUS

Because the air is so still and the clouds are so flat, the water droplets in stratus clouds collide less often, sometimes resulting in smaller or fewer raindrops. Stratus clouds produce a variety of precipitation, ranging from the drizzle of less dense clouds to the heavy rains of well-developed nimbostratus.

11. COMBINATION

At any time, the sky may contain lots of different types of clouds. What different types of clouds do you recognize in this slide? (*cirrus in the foreground, cirrocumulus or altocumulus in the middle, and altostratus on the horizon*)

12. COMBINATION

How about in this photo? (*cirrocumulus in the foreground and altocumulus on the horizon*) Learning about clouds and wind can certainly help us read the weather.