

Chapter 7 Lesson 3 Notes

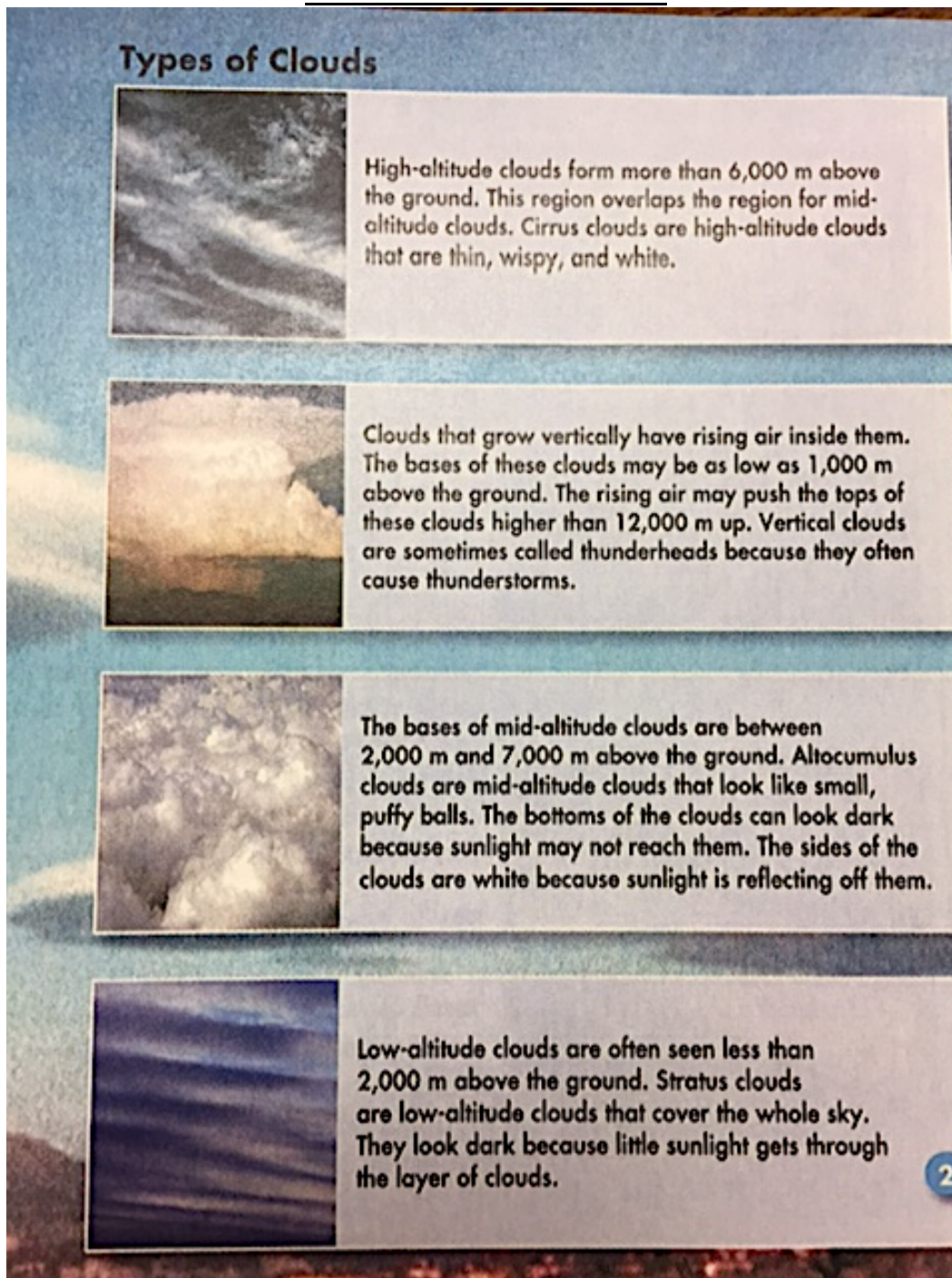
“What is the Water Cycle?”

- **Evaporation:** is the changing of liquid water to water vapor.
- **Condensation:** the water vapor turns into liquid, such as water droplets or clouds.
- **Precipitation:** the water falls from clouds as rain, snow, sleet, or hail.
- **Sublimation:** is ice changing into water vapor without first melting.
 - o You can see this when ice cubs in a freezer shrink over a long period of time.

Chapter 7 Lesson 4 Notes

“How do Clouds Form?”

Types of Clouds



High-altitude clouds form more than 6,000 m above the ground. This region overlaps the region for mid-altitude clouds. Cirrus clouds are high-altitude clouds that are thin, wispy, and white.

Clouds that grow vertically have rising air inside them. The bases of these clouds may be as low as 1,000 m above the ground. The rising air may push the tops of these clouds higher than 12,000 m up. Vertical clouds are sometimes called thunderheads because they often cause thunderstorms.

The bases of mid-altitude clouds are between 2,000 m and 7,000 m above the ground. Altostratus clouds are mid-altitude clouds that look like small, puffy balls. The bottoms of the clouds can look dark because sunlight may not reach them. The sides of the clouds are white because sunlight is reflecting off them.

Low-altitude clouds are often seen less than 2,000 m above the ground. Stratus clouds are low-altitude clouds that cover the whole sky. They look dark because little sunlight gets through the layer of clouds.

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Types of Precipitation

Rain

Most clouds over North America are made of ice crystals.

Ice crystals melt as they fall through warmer air. They fall to the ground as rain.



Freezing Rain

Ice crystals fall from clouds.

Ice crystals melt to form raindrops as they fall through warm air.

A layer of air close to the ground is colder than 0°C. This cold air makes the ground, trees, and other objects very cold. Rainwater freezes when it lands.



Sleet

Ice crystals melt as they fall through a thin layer of warm air high above the ground.

If raindrops fall for a longer time through cold air, they freeze before they hit the ground. Frozen raindrops are called sleet.



Snow

Ice crystals will fall as snow if the air between the clouds and ground has a temperature below 0°C.

