Section 17-4

Water in the Atmosphere

The Water Cycle

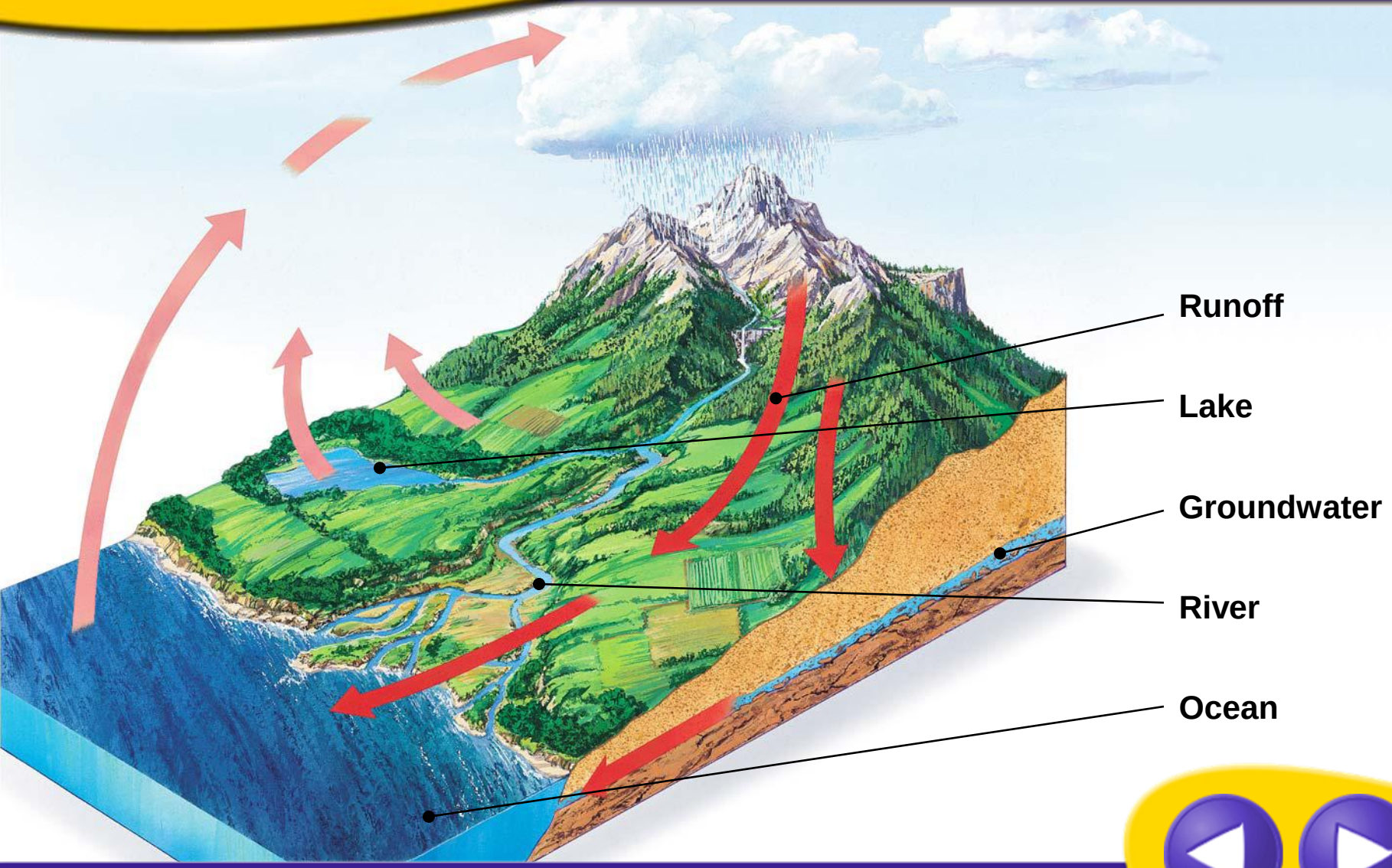
SCIENCE EXPLORER

Work with a partner. Make a list of all the places on Earth, land and atmosphere that have water.

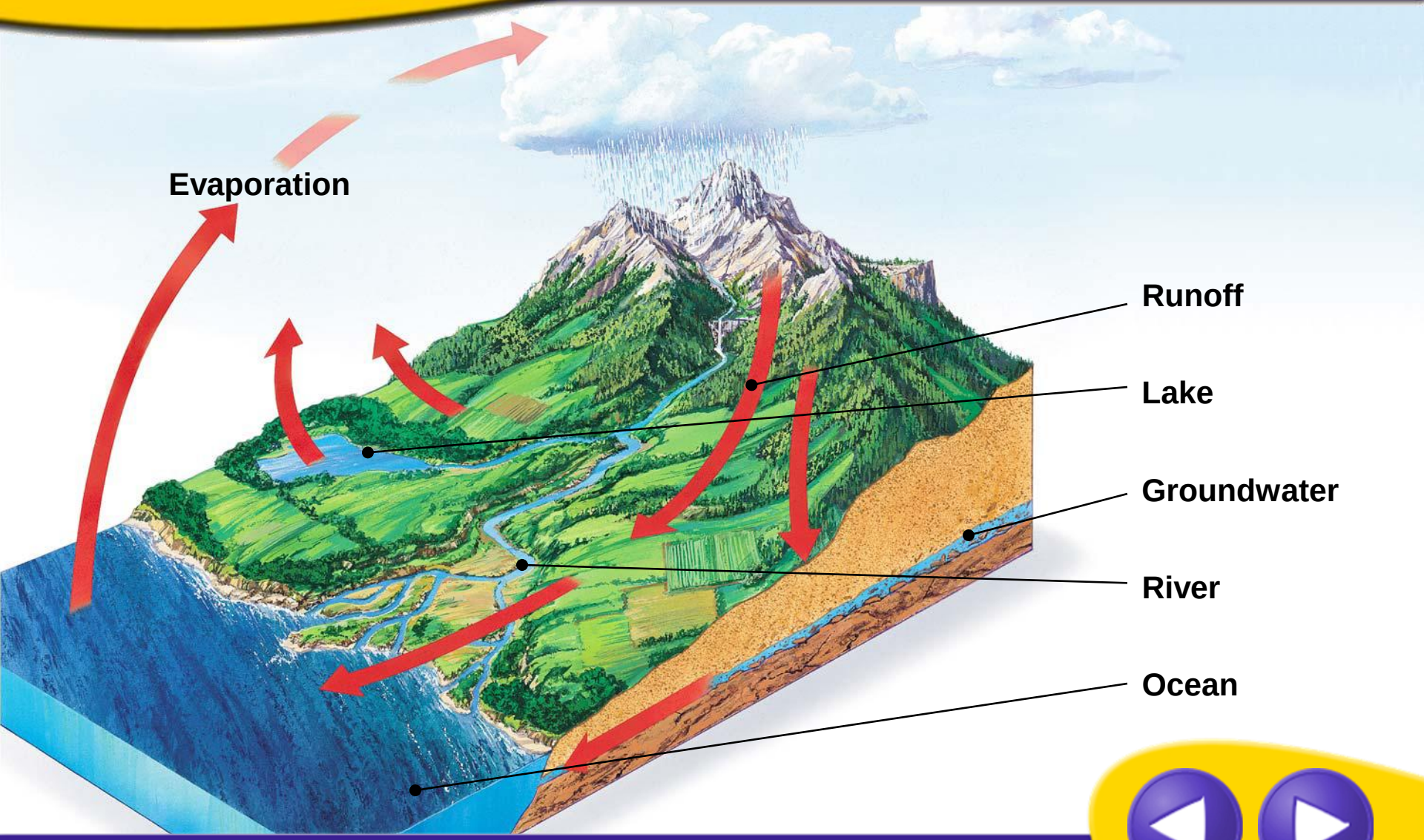
Does the same water always stay in the same place?

Propose a way that it might move continuously among all places it is found on Earth.

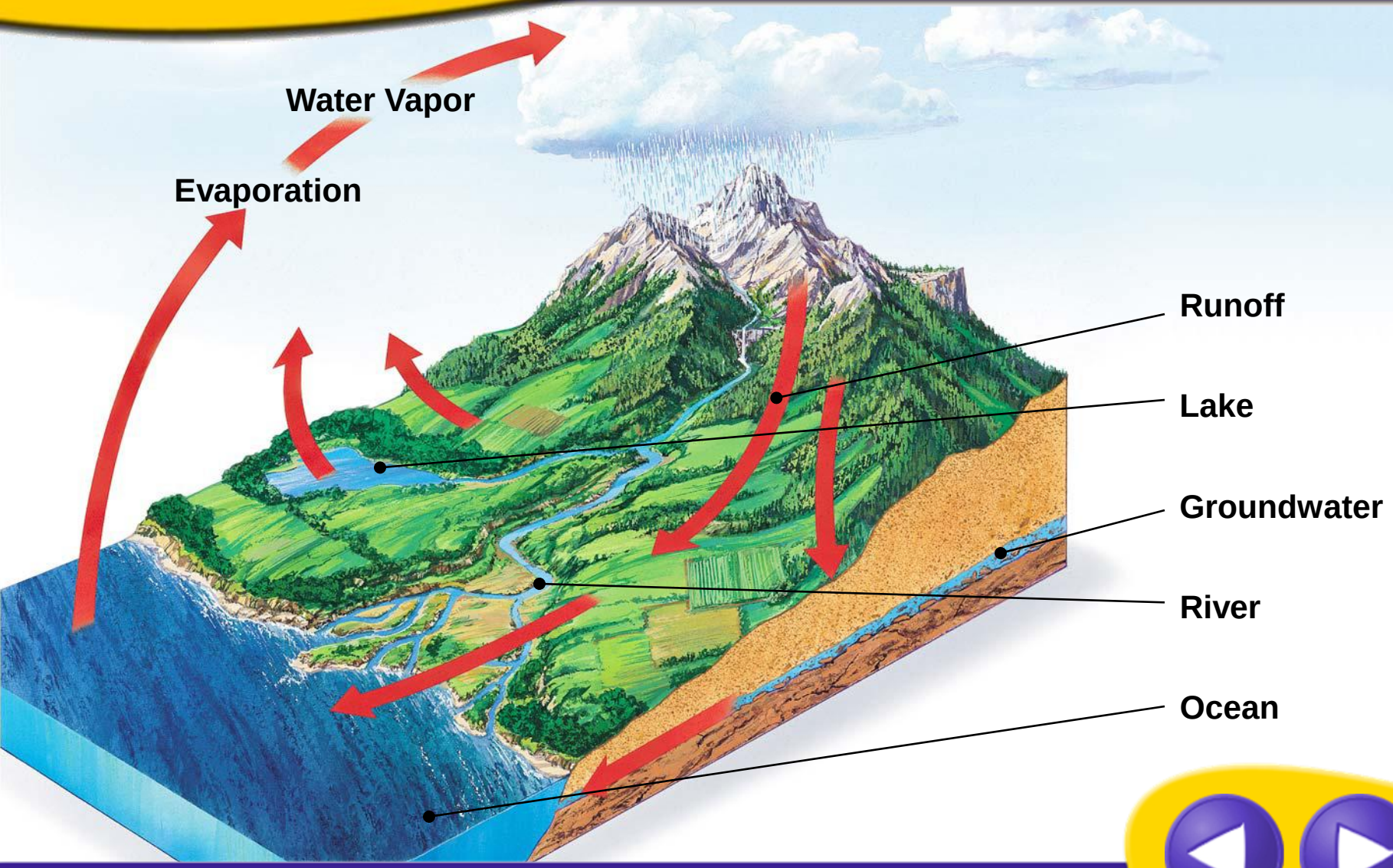
The Water Cycle



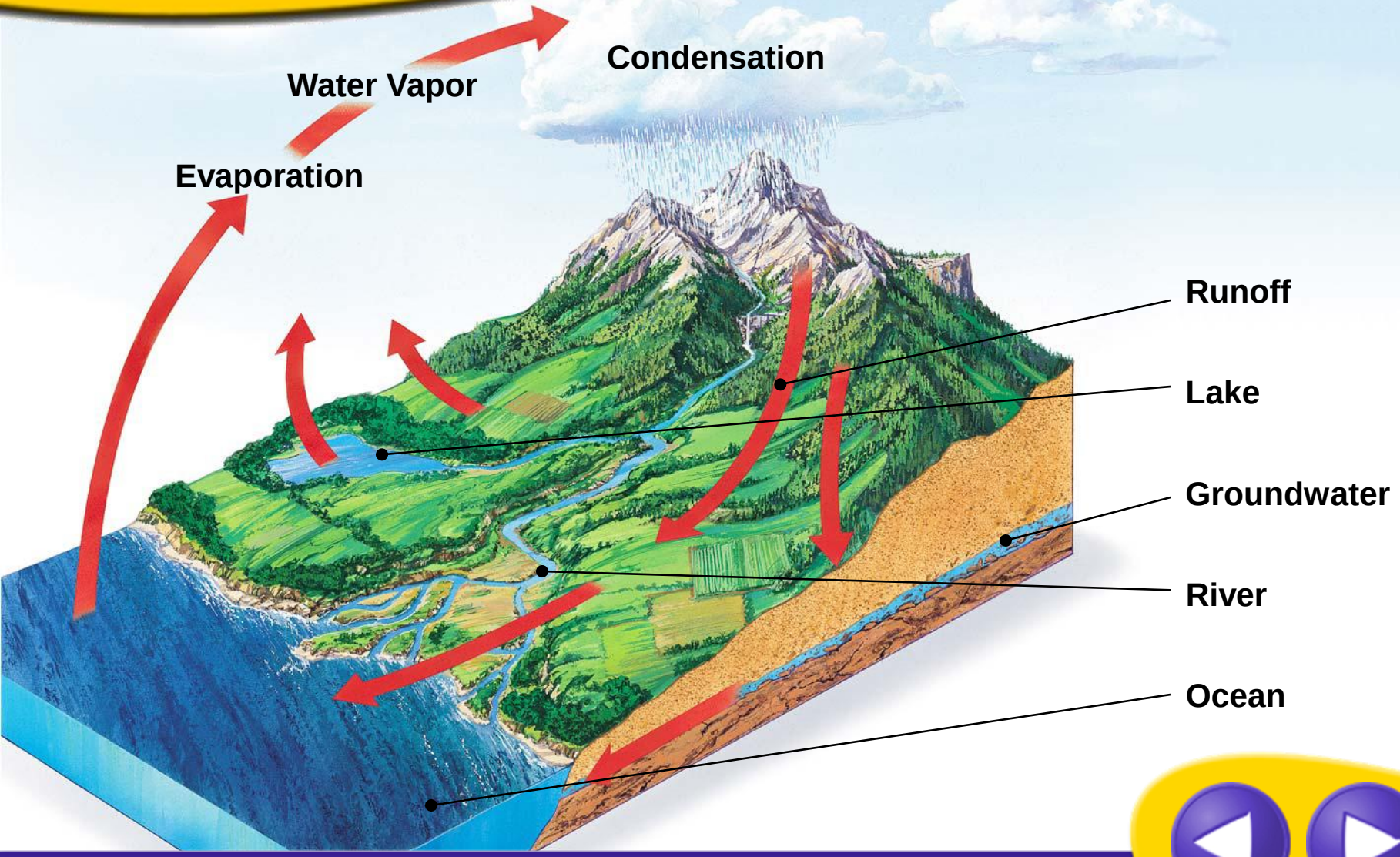
The Water Cycle



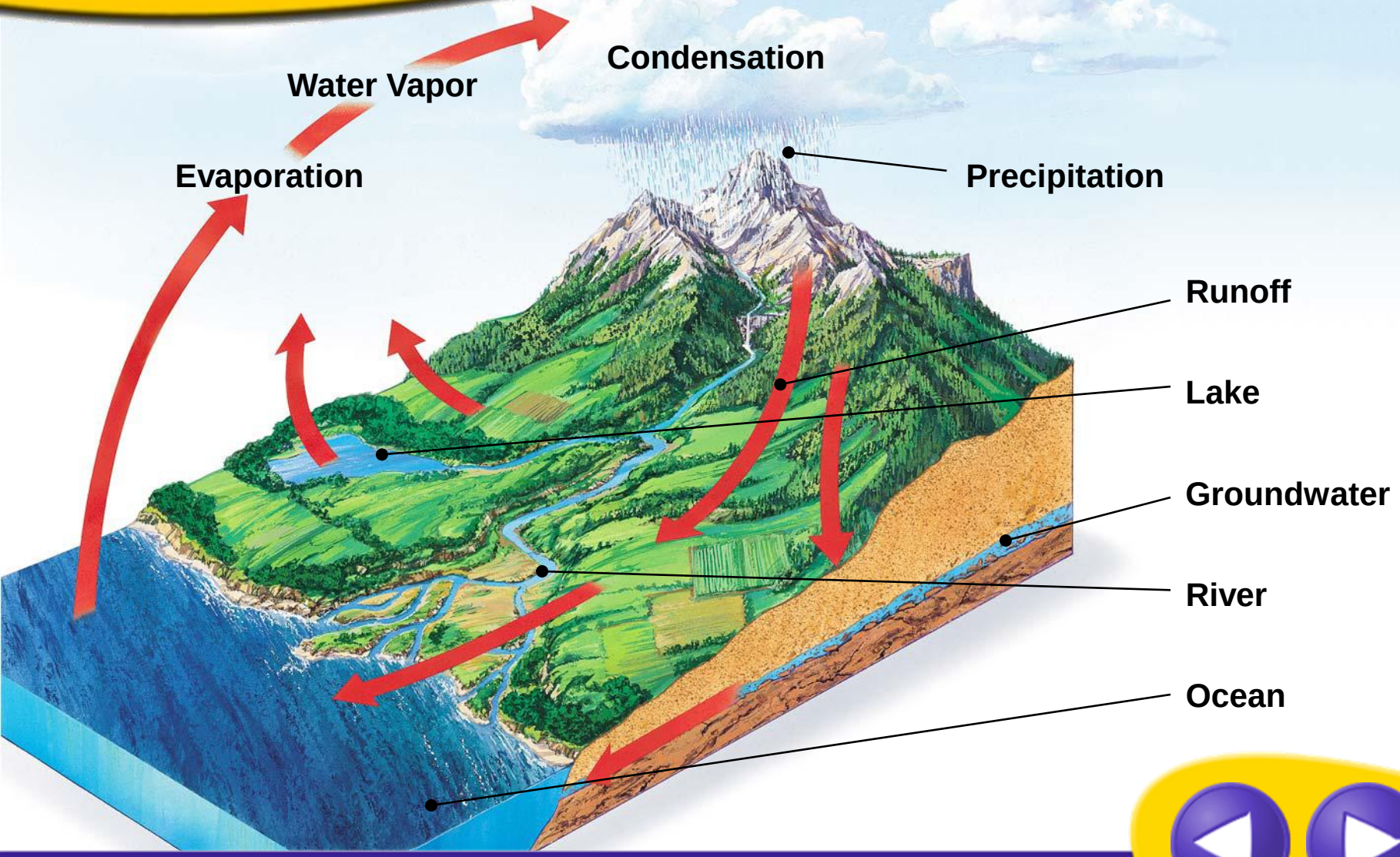
The Water Cycle



The Water Cycle



The Water Cycle



The Water Cycle

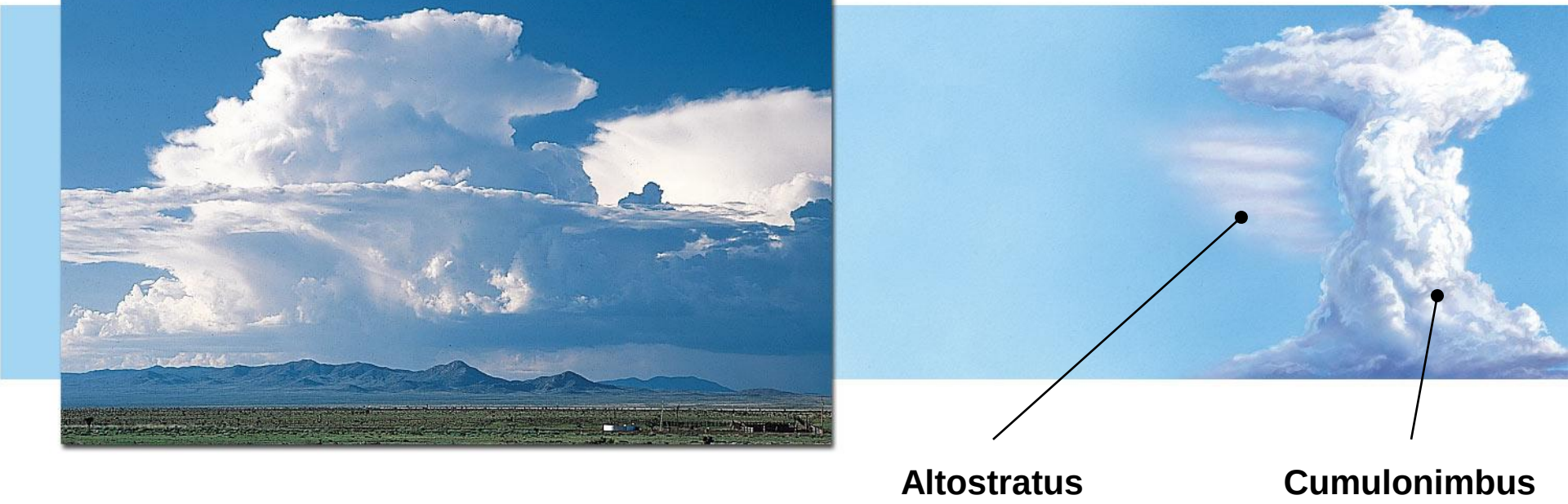
SCIENCE EXPLORER

Cirrus Clouds

The Water Cycle

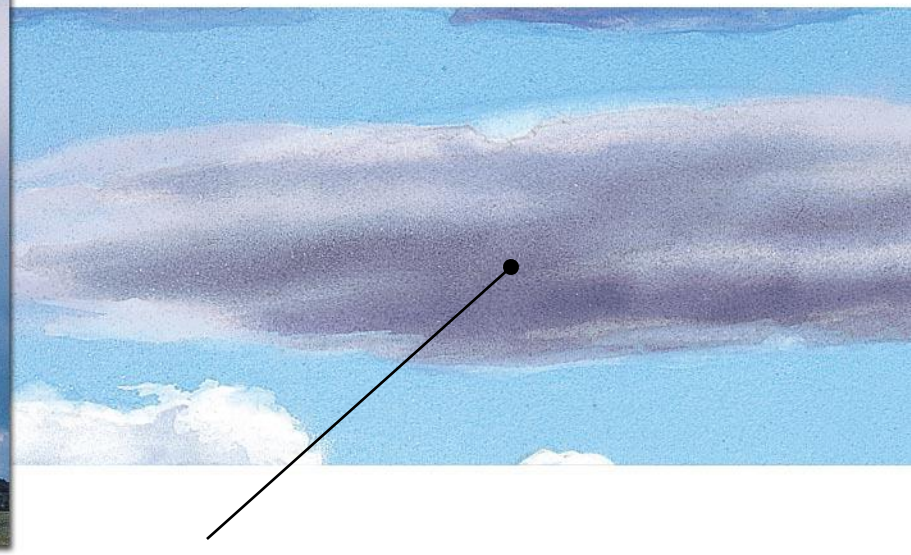
SCIENCE EXPLORER

Cumulonimbus Clouds



SCIENCE EXPLORER

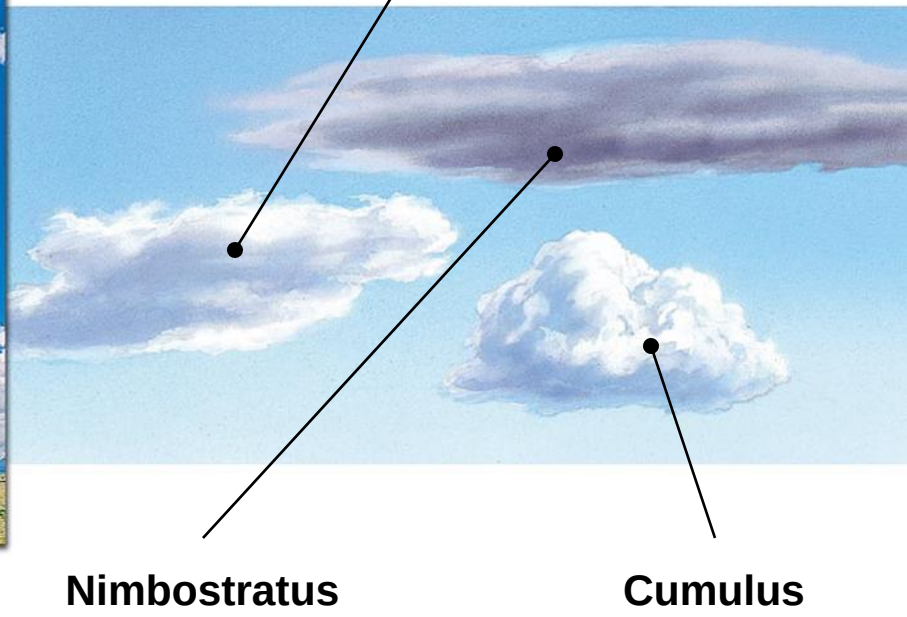
Nimbostratus Clouds



The Water Cycle

SCIENCE EXPLORER

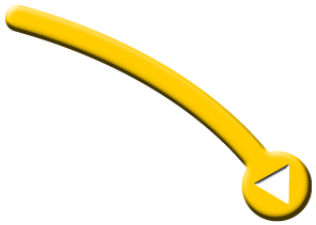
Cumulus Clouds



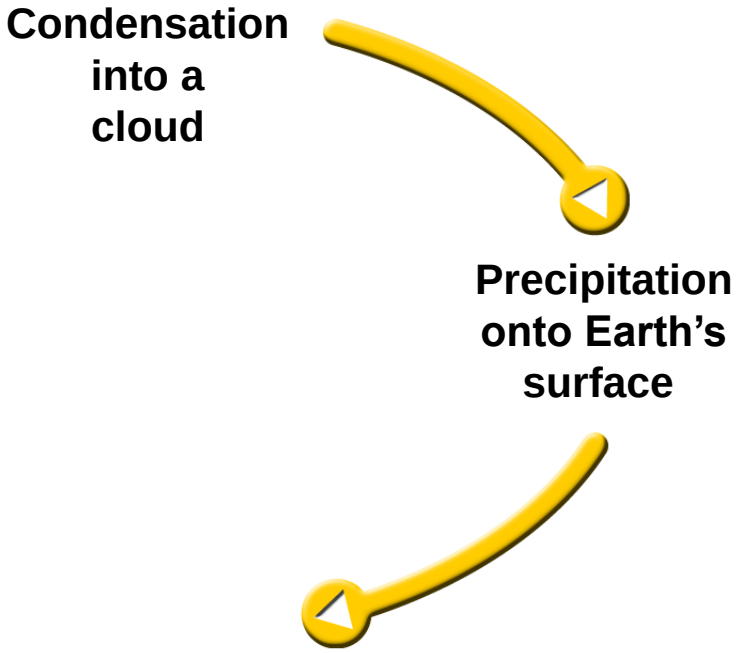
Fog

The Water Cycle

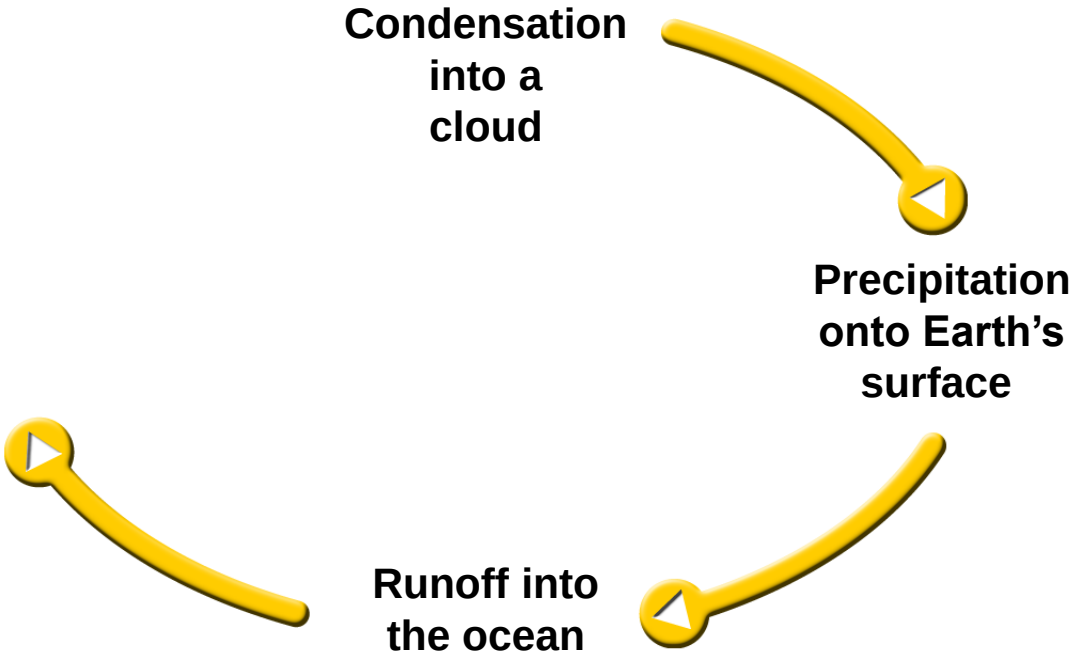
Condensation into a cloud



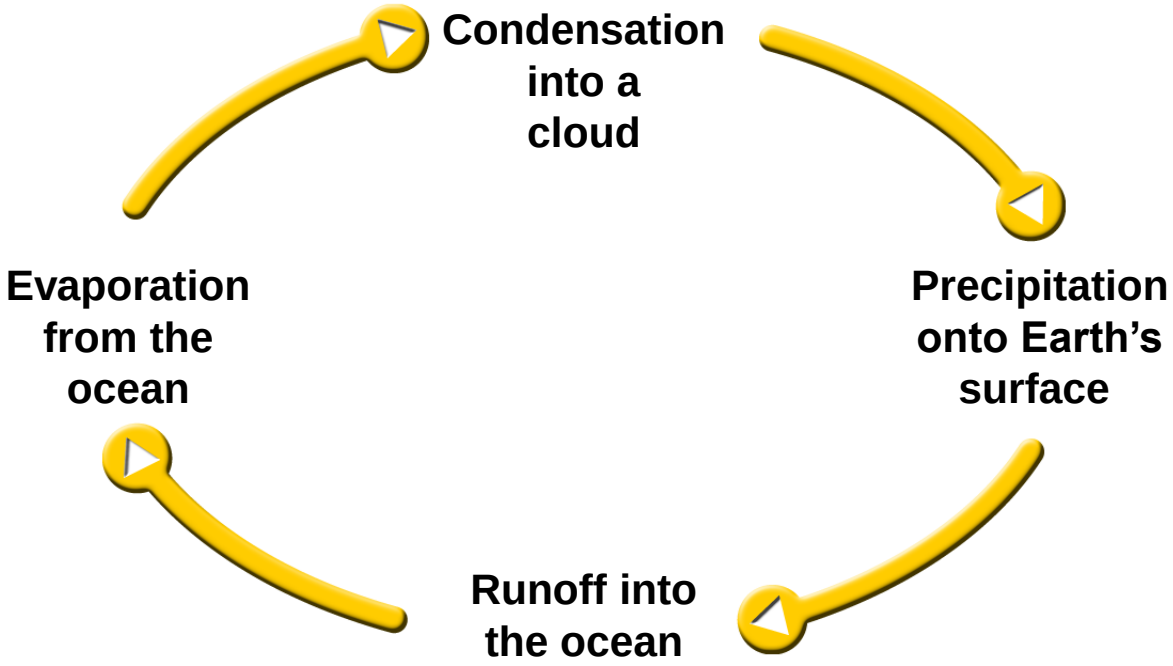
The Water Cycle



The Water Cycle



The Water Cycle



Section 17-5

Precipitation

Precipitation

SCIENCE EXPLORER

What is precipitation?

- Any form of water that falls from clouds and reaches Earth's surface

What are the five common types of precipitation?

- Rain
- Sleet
- Freezing rain
- Hail
- Snow

Precipitation

Rain-

- Most common type; drops must be at least 0.5 millimeters in diameter; smaller drops are called mist or drizzle

Sleet-

- Frozen raindrops; smaller than 5 millimeters in diameter; freeze in the air

Freezing Rain-

- Rain drops that freeze when they touch a cold surface; they do not freeze in the air

Precipitation

SCIENCE EXPLORER

Hail-

- Round ice pellets larger than 5 millimeters in diameter; form inside cumulonimbus clouds during thunderstorms

Snow-

- Water vapor in clouds that is converted directly into ice crystals; all snowflakes have six sides and six branches

Precipitation

Droughts-

- Long periods of unusually low precipitation

Cloud seeding-

- Tiny crystals of dry ice and silver oxide are sprinkled into clouds; water vapor can condense on these crystals forming rain or snow