

06. Oceans and the water cycle

The Raphaëla Le Gouvello education packet - Windsurfing solo across the Indian Ocean

<http://www.respectocean.com>

26°C

Earth, Water, and Climate



If you compare pictures of several planets with those of the Earth taken from space you'll see that the dominant color of our planet is blue, which is why the Earth is often called "the blue planet."

How can you explain that?

Did you know?

Oceans cover 360 million square kilometers (139 million square miles) of Earth, about three-quarters of our planet's entire surface.

Activities

- ▶ Identify the oceans on the world map.
- ▶ Color the seas and oceans blue and the continents yellow.
- ▶ Mark the course Raphaëla will take.
- ▶ Look up the oceans' surface area, average temperature, depth, etc.
- ▶ Can you define the word "ocean?" What is the difference between an ocean and a sea?



Activities

- ▶ Fill two identical containers with water. Mark the water level on each with a felt pen. Put one container outside in a shady, covered area, place the other in the classroom on top of a radiator.
- ▶ Take notes on your observations.
- ▶ What are your conclusions? What became of the water?
- ▶ To check your answers, you can carry out the following experiment with your teacher or an adult: heat a pot of water and place a cold lid on top (glass or metal).
- ▶ What do you see?

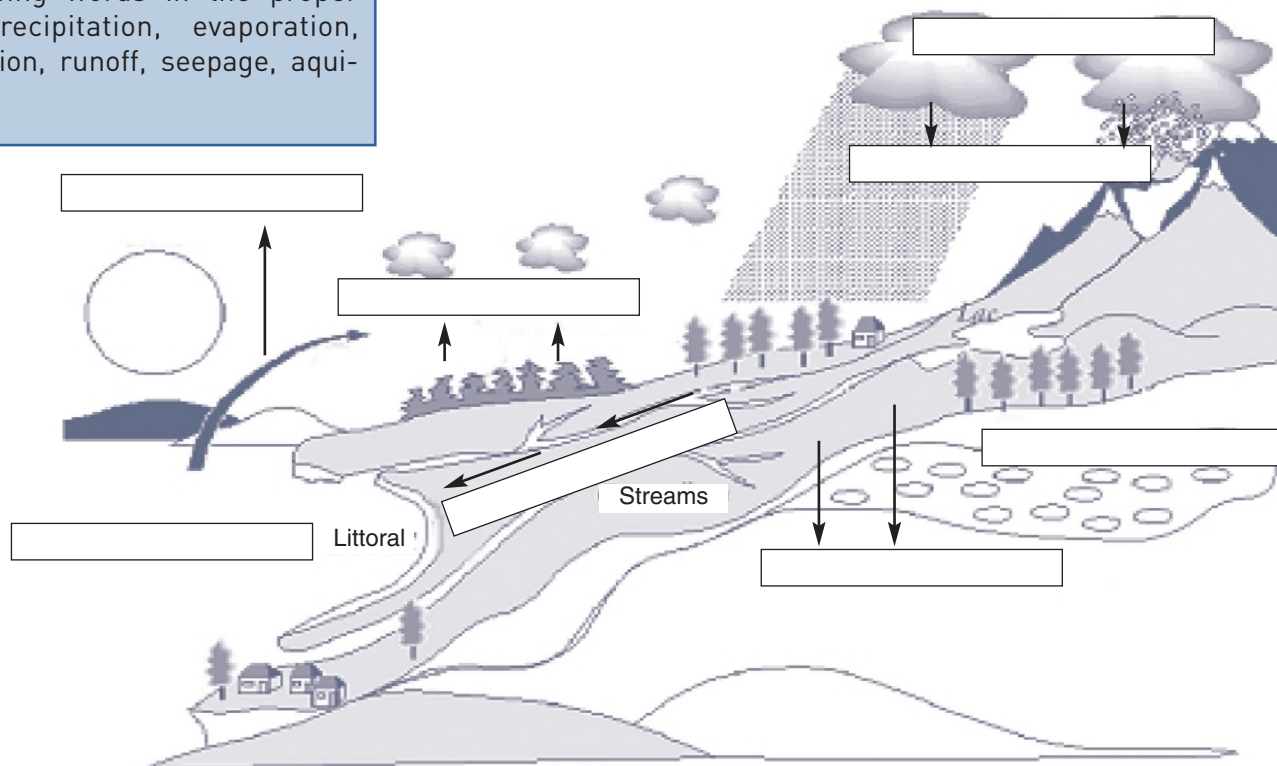
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Activity

Fill in the diagram below by placing the following words in the proper space: precipitation, evaporation, condensation, runoff, seepage, aquifer, ocean.



Activity

Complete the following text to explain the water cycle.



The sun heats the oceans, transforming water into vapor. This is called Plants also release water vapor through secretion; this is called All this water vapor rises into the atmosphere and when it hits cold air in the higher altitudes. Fine droplets are formed, creating which are transported by the wind. Water falls back to Earth in the form of rain, snow, and hail; these are

Once on the ground, more than half the water evaporates. The remainder can soak into the earth and feed the water table and underground rivers (i.e.), or else it and flows out into streams. It then returns to its starting point: the ocean!



Did you know?

The water cycle is so perfect that it is thought there is today the same quantity of water on Earth (some 1 billion billion tons) as there was two billion years ago!