

CONSERVATION CONNECTION

WATER & ENERGY IN SOUTHERN CALIFORNIA



WE NEED WATER AND ENERGY



S T U D E N T B O O K

Water, Energy, & You

Think About It...

- 💧🌀 What would a day be like **without** water or energy?
- 💧🌀 How have you personally used water and energy today?
- 💧🌀 How do you think your use of water and energy compares to people's use 100 years ago?
- 💧🌀 Is there enough water and energy to last forever?

Learn About It...

We need water and energy.

Water makes up about 65% of our bodies; we cannot live more than about a week without drinking water. And we need water to grow our food and make products that we use every day.

Energy is essential to life; we could not exist without the heat, light, and food that are created by the energy the sun provides. And, of course, we use energy in so many other ways, from cooking our food to running our cars.

We use **a lot** of water and energy every day. Is there a never ending supply? Well, yes...and no.

Water does fall from the sky, but it is not “new” water, just recycled water. The amount of water on Earth never increases or decreases. We have a fixed supply.

Heated by the sun, water on the ground in oceans, lakes, rivers, streams, and other areas *evaporates*; water vapor is also released from plants through *transpiration*. All this water vapor rises into the air, cools, and *condenses* into tiny droplets that gather and form clouds or fog. Finally, when the clouds meet cool air over land, *precipitation* in the form of rain, hail, sleet, or snow is triggered, and water returns to the land or sea. Thus, the water you use is the same water used by dinosaurs, early Native Americans, pilgrims, and your great grandparents.



Energy—which produces heat, light, or motion—comes from many sources, such as:

- 🌀 fossil fuels (oil, natural gas, coal)
- 🌀 the sun
- 🌀 the wind
- 🌀 the ocean

Some of our energy sources are *renewable*; they can keep on providing energy. For example, we expect the sun to keep shining and the wind to keep blowing. However, the energy sources that we depend on the most—oil, natural gas, and coal—are *non-renewable*. There is only a limited supply of these fossil fuels in the earth. Once they're gone, they're gone forever.

Our supply of water and energy meets our needs most of the time. But, in times of drought and during periods of high energy demand, we don't have enough water and energy. And as the population grows every day so does our demand for water and energy, yet our supply is decreasing as we find more ways to use these precious resources.

So how can we be sure we have enough for the future?

CHECK THIS OUT:
Go online to surveys.bewaterwise.com to print out and begin the Water and Energy Survey for Home and/or School.