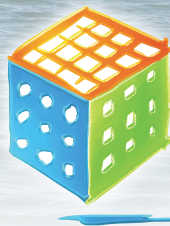


Wise Water Conservation




WE 
SANTA
MONICA
Save water. Show your love.



OC & LA

DiscoveryCube
Part of the Discovery Science Foundation



Here in Santa Monica we are dedicated to creating a sustainable community. We need your help in reaching our goal to make Santa Monica water self-sufficient. That means being efficient enough that our local groundwater supply is all we need.

Start by talking with your parents about all the ways your family can be more water efficient. It may seem boring but replacing your old toilets with new super-efficient ones will help save lots of water. Consider replacing your high water using front lawn or apartment complex grass area to a garden of native plants that attracts butterflies and birds! Not sure where to start, a specialist can come out for a free consultation to help your family get started.

Visit www.smgov.net/water to show your parents all the great ways your family can save water.

Water Conservation Unit
Office of Sustainability and the Environment
savewater@smgov.net
(310) 458-8972

Three recommended ways to save water include:

- 1. Check and change the irrigation timer and turn-off during rainy weather.**
- 2. Fix toilet and other leaks as soon as possible.**
- 3. Remove lawn and replace with climate-appropriate plants and drip irrigation.**

Dear Parents and Teachers:

Recently, your child or student participated in a Discovery Cube water education assembly sponsored by the City of Santa Monica. They learned that, due to Earth's temperature rise, Southern California is facing increasingly serious water challenges. Like Southern California, there are many populations and regions around the world that do not have adequate access to clean water or enough water to survive. As the demand for water increases, the burden will be unequal and impact certain communities more than others.

To encourage everyone to save water, we've provided some ideas for water use efficiency in this booklet, along with some information that aligns with grade-specific academic requirements.

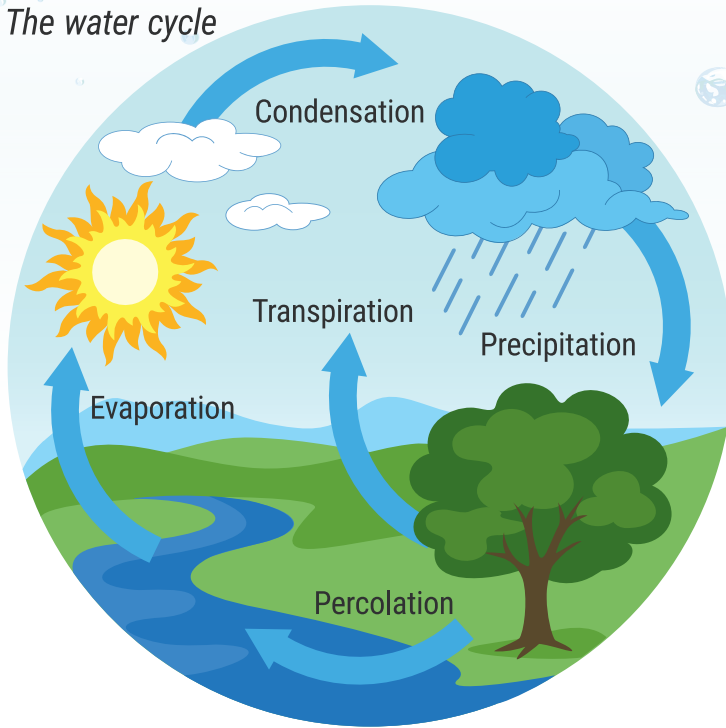
Please take some time to look over and complete the lessons in this booklet with your child or student. Together, we can make a difference.

Keith Brush
Director of Education
Discovery Science Foundation
714-263-3856



The Water Cycle

The water cycle



When warm air rises, it carries moisture with it. About 90% of the moisture in our atmosphere comes from evaporation from bodies of water such as rivers, lakes, or oceans. The remaining 10% comes from plants as they transpire. As this moisture-laden air cools, the water vapor condenses into clouds. These clouds drop rain or snow in the mountains. When the snow melts, the water flows downhill forming lakes, rivers, and streams, that flow into the ocean.

Southern California Chaparral Ecosystem



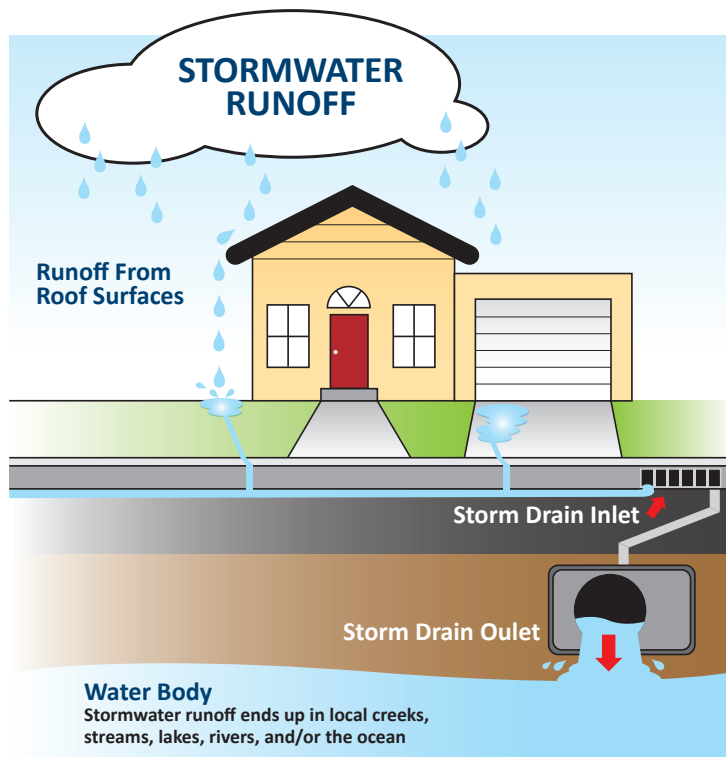
California Department of Water Resources

Southern California is located between 30 to 40 degrees north of the equator, placing it in the subtropical climate zone. This means that we receive a limited amount of rainfall. Because of California's topography, most of the rain and snowfall we do receive is dropped in the mountain areas of Eastern and Northern California.

Santa Monica gets 35% of its freshwater from the California and Colorado River Aqueducts. This imported water moves hundreds of miles through a series of pipes and canals in order to be used by residents and businesses in Santa Monica.

How Does the Water Cycle Affect Our Water Supply?

- As rain washes over streets, parking lots, and lawns, it can pick up pollutants from daily activities.
- Stormwater can send a toxic mix of car chemicals, pesticides, cleaning products, debris, and pet and wildlife feces into streams and the ocean.
- Once litter reaches the ocean, it rarely comes out. Most litter, especially plastic, does not biodegrade and stays in the ocean for hundreds of years.



Importance of Water Resiliency

On average, Southern California has less than 22 days of rain per year with an average annual rainfall of only 13 inches. In 2013, California entered into a period of prolonged water shortage. Cities and citizens took an active role in water conservation resulting in cumulative statewide water savings of 23.9% from June 2015 to March 2016 compared with water usage in 2013. This was the start of Californians adjusting to a water resiliency mindset to make sure we have water in our community into the future.

What can cities do to save water?

Water Source	Description	Cost
Harvesting Rainwater	Collecting rainwater for later use	\$
Conservation	Using less water for common activities	\$
Recycled Water	Cleaning and reusing wastewater for non-consumption	\$\$
Imported Water	Aqueducts bringing us water from outside Southern California	\$\$

Harvest Rainwater	
Cities' Actions	Families' Actions
Permeable pavement and large cisterns.	Redirect gutter downspouts away from paved surfaces. Install rain barrels to capture water running down rooftop gutters.

A Call to Action!

Be Water Wise at Home

Involve the whole family in these two water wise audits. See how many boxes you can check. Calculate how much water your family is saving both inside and outside your home.

Water Saved:

- ☐ We run the dishwasher only when its full (Saves 5-15 gallons per load) _____
- ☐ We have aerators installed on kitchen and bathroom faucets (Each aerator saves 1.2 gallons per person per day) _____
- ☐ We have water efficient showerheads in our bathrooms (Each shower head saves 1.2 gallons per minute or 10 gallons during a 10 minute shower) _____
- ☐ We turn off the water when brushing teeth or shaving (Saves 10 gallons per person per day) _____
- ☐ We take 5 minute showers instead of 10 minute showers (Saves 12.5 gallons with a water efficient showerhead) _____
- ☐ We wash only full loads of laundry (Saves 15-45 gallons per load) _____
- ☐ We have a high-efficiency toilets (1.28 gallons per flush – which saves 13 gallons per person per day) _____
- ☐ We have checked that none of our toilets are leaking (Saves 30-50 gallons per day per toilet) _____

Total: _____

Water Saved:

- ☐ We use a broom instead of a water hose to clean up outdoor areas (Saves 8- 18 gallons per minute) _____
- ☐ We have installed a drip irrigation system in our front and back yards (Saves 15 gallons each time you water) _____
- ☐ We have checked to make sure sprinklers do not send water down the driveway or onto sidewalks (Saves 12-15 gallons each time you water) _____
- ☐ We use an automatic shut-off nozzle when watering with the garden hose (Saves 17 gallons per minute) _____
- ☐ We have checked to make sure we don't have any broken or leaky sprinkler heads (Saves 20 gallons per head every 10 minutes) _____
- ☐ We use mulch to cover soil by plants and trees in our yard (Saves 2-3 gallons per 100 square feet each time you water) _____
- ☐ We water outdoor plants early in the morning or late at night (Saves 25 gallons each time you water) _____
- ☐ We take our vehicle to a carwash where the water is collected and treated to be used in public greenery (Saves 50 gallons per car washed) _____
- ☐ We have taken out part of the lawn and replaced it with drought resistant plants and trees. (Saves 3-6 gallons per 100 square feet each time you water) _____

Total: _____

Did you check every item? If not, set a goal to be water-wise and revisit this audit in 6 months to see how much more water you can save.

What About Waste?

Water conservation, wisely using our freshwater supply, is very important. We also need to be mindful of water preservation which are efforts to keep our natural waters clean. Here are some things you can do to keep our water clean:

- ☐ Pick up pet waste.
- ☐ Pick up litter and place it in trash can or recycling bin.
- ☐ Fix oil leaks in the family cars.
- ☐ Don't sweep grass clippings into the street.
- ☐ Use raked leaves and grass clippings as mulch in the garden.
- ☐ Reduce your use of pesticides and fertilizers in your garden.
- ☐ Use biodegradable cleaning products
- ☐ Don't wash paints, solvents or other chemicals into the gutter.
- ☐ Don't purchase water in disposable plastic bottles.
Carry a refillable water bottle instead.
- ☐ Find the Hazardous Waste disposal site closest to your home.
- ☐ Properly dispose of Hazardous Materials.
- ☐ Inform others on what they can do to keep our water clean.
- ☐ Participate in neighborhood clean-up efforts.
- ☐ Organize a school, neighborhood, or beach clean-up event.

**For information
on how to safely dispose of
motor oil, paint, batteries, and
harmful household chemicals,
visit www.smgov.net/OSE
or call 800-714-1195.**

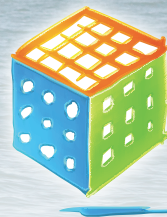




SANTA MONICA-MALIBU UNIFIED SCHOOL DISTRICT



CITY OF SANTA MONICA
A Sustainable Community
sustainablesm.org



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For more information, call 714.913.5030