



City of San Diego Water Department

# Water Conservation



# Activity Book



# The Water Cycle

There is as much water in the world today as there were thousands of years ago. In fact, it's the same water. The water that we drink contains the same molecules that the dinosaurs drank. Perhaps Columbus sailed across it.

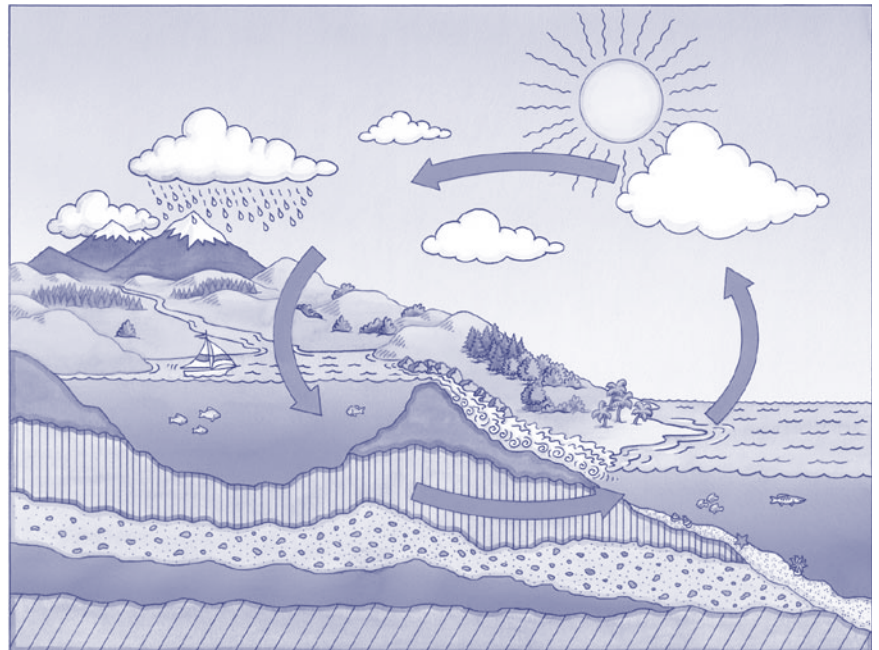
The earth naturally recycles water. The Water Cycle is controlled by the sun. Heat and energy from the sun causes the world's oceans, lakes and pools in your backyard to warm and evaporate.

When water is heated, it changes from a liquid to a gas called water vapor. This process is called water evaporation.

When water evaporates, it rises into the cooler air, collects, and forms clouds. The water vapor cools down and changes back into liquid water called condensation.

As more and more water vapor cools in the clouds, water droplets begin to form. The water droplets become larger and get so big that the swirling winds in the atmosphere can no longer hold them up. The drops fall from the sky.

These droplets are called precipitation. Precipitation comes down to the earth in the form of rain, snow, sleet, or hail depending on the conditions in the atmosphere.



The water then runs off into lakes, rivers, streams, and any other body of water.

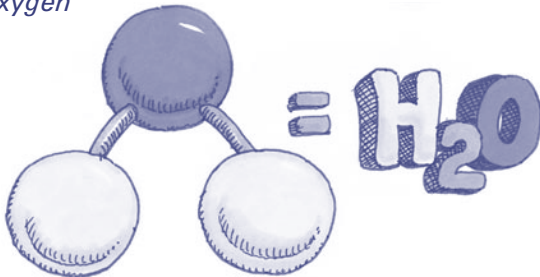
More water is heated by the sun, the water evaporates and the whole cycle begins again.

# Water Word Scramble

1. ALEK \_\_\_\_\_
2. PVORA \_\_\_\_\_
3. NDKIR \_\_\_\_\_
4. EURSE \_\_\_\_\_
5. VERIR \_\_\_\_\_
6. VOESNCRE \_\_\_\_\_
7. TRASEMS \_\_\_\_\_
8. DISLO \_\_\_\_\_
9. USN \_\_\_\_\_
10. EWRAT \_\_\_\_\_
11. ECRELCY \_\_\_\_\_
12. ILDIUQ \_\_\_\_\_
13. LUDCOS \_\_\_\_\_
14. SGA \_\_\_\_\_
15. AEVS \_\_\_\_\_



Two bonds of Hydrogen  
One bond of Oxygen



## Use the Secret Code



SECRET CODE									
A = ☉	C = ◆	E = ☁	L = 🌡	M = 🎯	O = 💧	R = ✖	T = ✓	U = 🌊	W = ▲

1. Lake, 2. Vapor, 3. Drink, 4. Reuse, 5. River, 6. Conserve, 7. Streams, 8. Solid, 9. Sun, 10. Water, 11. Recycle, 12. Liquid, 13. Clouds, 14. Gas, 15. Save.

# On Track With H<sub>2</sub>O Facts

## Did you know that:

80% of the world is covered by water or ice.  
20% is dry land.



97% of the world's water is salty and undrinkable.  
2% of the available drinking water is frozen in ice caps and glaciers.  
1% of the world's water is available to drinking.

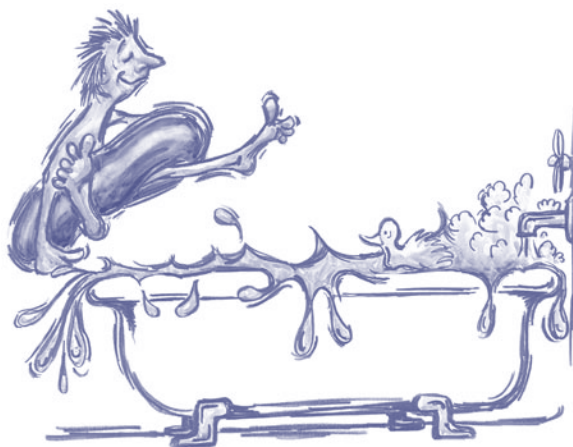
Less than 1% of water treated by the City of San Diego is actually used for drinking. The remaining 99% of our drinking water is used to water our lawns, to wash our clothes and to flush our toilets.



*Water your lawn early in the morning or late in the evening.*

55% is used to water our lawns  
20% gets flushed down toilets.  
15% is used in showers and baths.  
7% is used to clean our laundry and dishes.  
2% is lost through undetected leaks.  
1% is available to drink.

The average person uses 88 gallons of water a day.

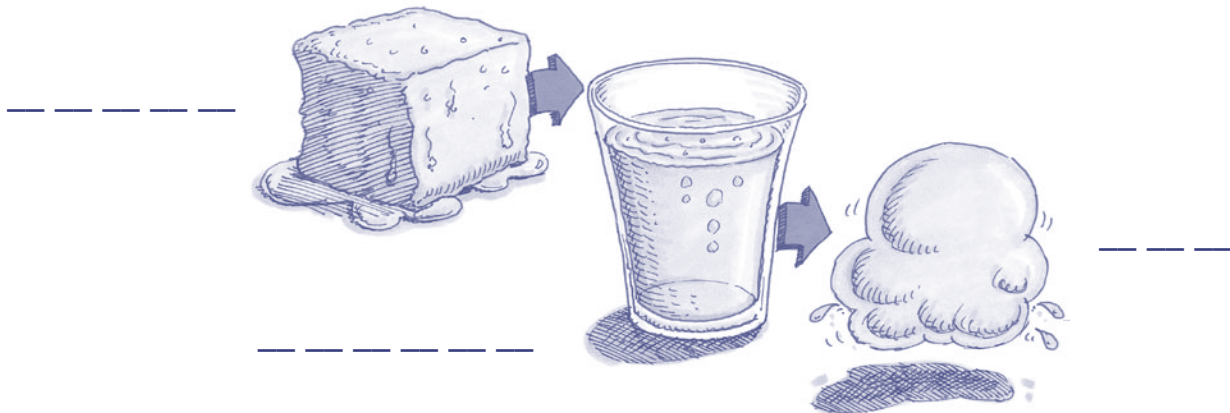


*Fill your tub half way to save water.*

# Water Quiz

- |   | True/False |
|---|------------|
| 1. The water coming out of your faucet contains molecules that the dinosaurs drank. | T F        |
| 2. The volume of earth's water is constantly changing.                              | T F        |
| 3. Potable water is drinkable water.  | T F        |
| 4. Water exist naturally in the form of a gas, a liquid and a solid.                | T F        |
| 5. Our human bodies are mostly water.   | T F        |
| 6. We can survive two months without drinking water.                                | T F        |
| 7. A reservoir is a man-made lake used for water storage.                           | T F        |
| 8. The average yearly rainfall in San Diego County is about 9½ inches.              | T F        |
| 9. The earth naturally recycles water faster than we can use it.                    | T F        |
| 10. Most plants do not die from over watering.                                      | T F        |

## Name each form of water



1. True, 2. False, 3. True, 4. True, 5. True, 6. False, 7. True, 8. True, 9. True, 10. False  
Forms of water: Solid, Liquid, Gas

# ***Water Quiz Answer Explanation Page***

1. **True.** The water on planet earth is constantly being recycled. That means that the same molecules in the water that the dinosaurs drank are still around today.
2. **False.** The amount of water on earth is constant. There is same amount of water on planet Earth at all times only the form changes.
3. **True.** Potable water is also known as “finished water” that is safe for drinking and cooking.
4. **True.** Water can be found in nature in three forms. It can be a solid like ice. It can be a liquid like water in rivers and streams. It can also be found as a gas such as water vapor.
5. **True.** Water makes up 67-75% of our total body weight. The brain is also 75% water.
6. **False.** Humans need water daily. The longest you could go without water is a few days. When you sweat you lose even more water.
7. **True.** A reservoir is a man-made body of water that is formed after a dam is built on a river. It is used for the collection and storage of water.
8. **True.** The most rainfall that San Diego ever received was in 1883-1884 when it rained 25.97 inches. Usually San Diego gets about 9 1/2 inches though.
9. **False.** Although the earth naturally recycles water through evaporation, condensation, and precipitation, it does not recycle the water as fast as we can use it.
10. **False.** You can over water plants by drowning them in too much water.

*(Page added by the Energy/Utility Management Section of SDCS)*



# H<sub>2</sub>O Questions

Do you know the answers?



Use a bucket and a shut off nozzle to wash your car.

1. Conserving water in the kitchen is simple. Choose the best ways to save water.

- A. Wash full loads of dishes in the dishwasher.
- B. Keep drinking water in the refrigerator.
- C. Wash vegetables in a bowl.
- D. All of the above.

2. If you leave the water running while brushing your teeth, how much water is wasted?

- A. 7 to 9 gallons
- B. 2 to 4 gallons
- C. 4 to 6 gallons
- D. 3 to 5 gallons



3. What activity in your home uses the most water?

- A. Toilet flushing.
- B. Taking a bath or shower.
- C. Washing laundry.
- D. Cooking and dishwashing.

4. How often should you water your lawn?

- A. Every day.
- B. Only when necessary.
- C. Three days per week.
- D. Four days per week.



Water your lawn only when necessary to save water

5. What Activity outside your home uses the most water?

- A. Washing the Car.
- B. Watering the lawn and garden.
- C. Washing the driveway.
- D. Answers A and C.

6. How many gallons per day does the City of San Diego use?

- A. 90 million gallons.
- B. 150 million gallons.
- C. 210 million gallons.
- D. 350 million gallons.

7. What are the steps of the water cycle.

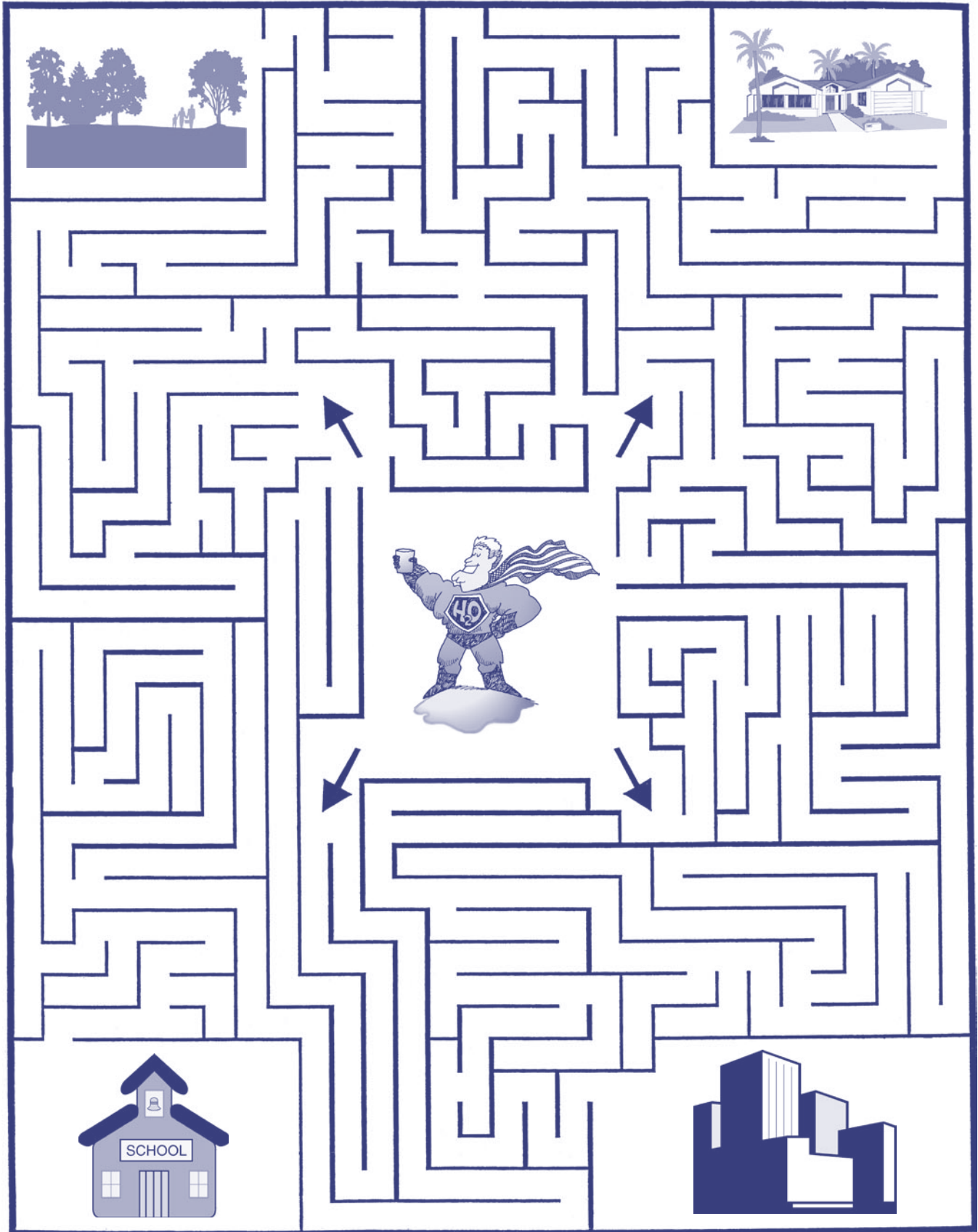
- A. Evaporation and condensation.
- B. Precipitation.
- C. Percolation and runoff.
- D. All of the above.

8. What percent of all water used in San Diego is imported?

- A. 90%
- B. 70%
- C. 50%
- D. 30%



# Water Conservation Maze



[www.sandiego.gov/water](http://www.sandiego.gov/water)



Report Water Waste or Water Theft  
(619) 515-3500

Free Water Use Survey  
(619) 570-1999

