

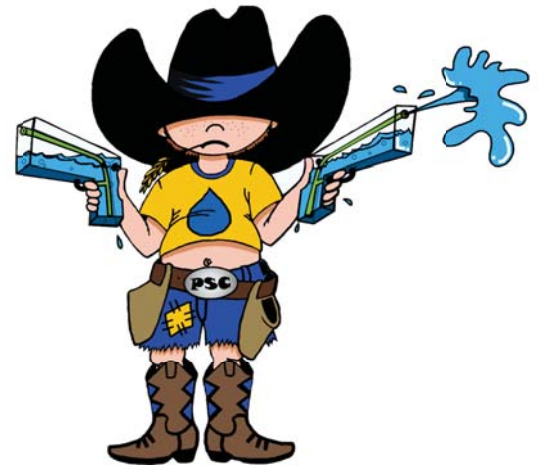
Get Wise and Conserve Florida!



TAMMY TALKALOT
Telecommunications



ELECTRA
Electric & Natural Gas



DEPUTY DRIP
Water

Student Resource Guide

A Publication of the Florida Public Service Commission

Get Wise and Conserve Florida!

A Student Resource Book

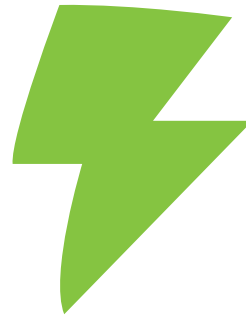
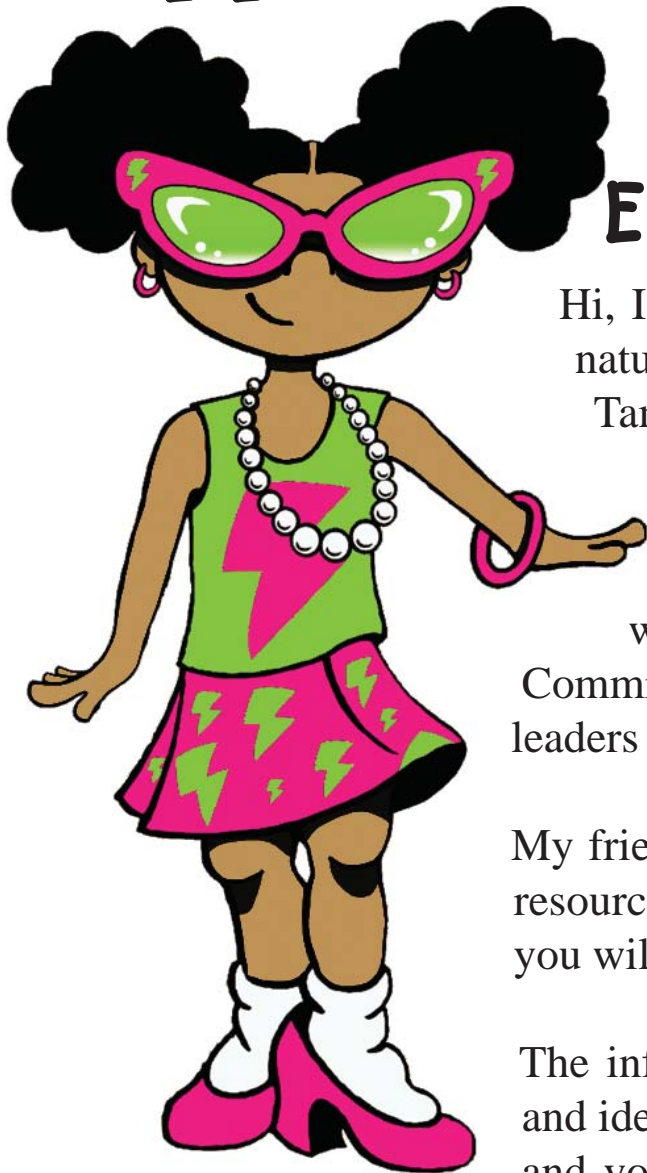
Table of Contents

Electra's Introduction	1
It's a Family Affair	2
Conservation House	3
Energy Riddles	4
Deputy Drip and Water Facts	5
Save Money By Conserving	6
Water House	7
Tammy Talkalot and Telecom Facts	8

Conservation Games Section

Color This	10
All About Conservation	11
Green Thinking	12
PSC Eye Chart	13
Conservation Makes Sense	14
Reuse, Recycle, and Reduce	15
Being Energy Efficient	16
Conserve Your World	17

ELECTRA

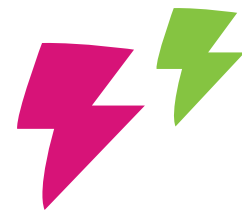
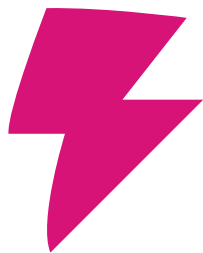


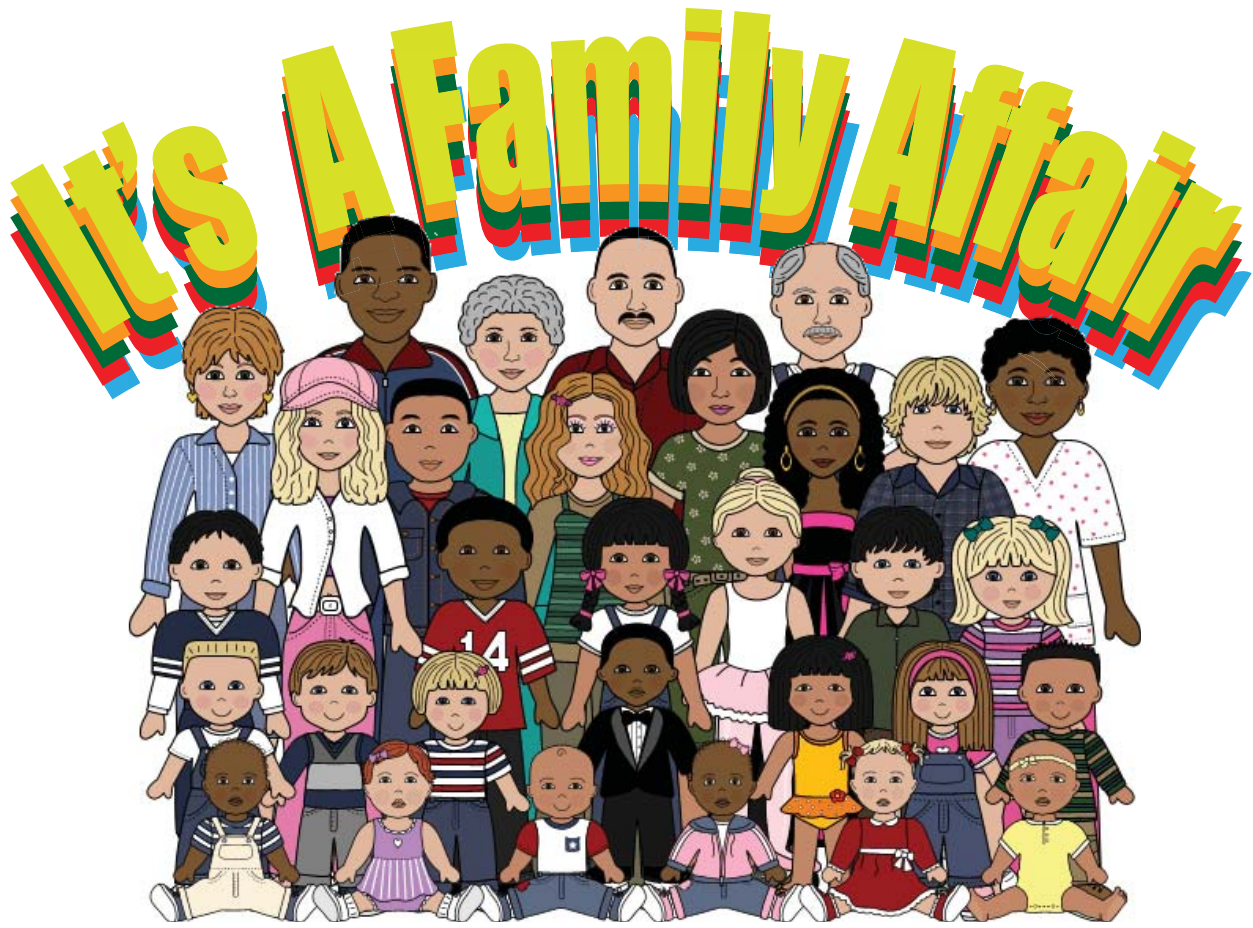
Electric & Natural Gas

Hi, I'm Electra! I am an expert on electric and natural gas. My friends, Deputy Drip and Tammy Talkalot, and I are here to help you understand the importance of conservation. Tammy Talkalot is the telecommunications expert, and Deputy Drip is the expert in water. We help the Florida Public Service Commission (PSC) by reaching out to you, our leaders or "movers and shakers" for the future.

My friends and I have developed this student resource book specifically for you. We hope that you will enjoy it!

The information, activities, and conservation tips and ideas included in this publication can help you and your family save money on energy bills and at the same time help protect the environment. We also have information on area codes and the history of telephone service.



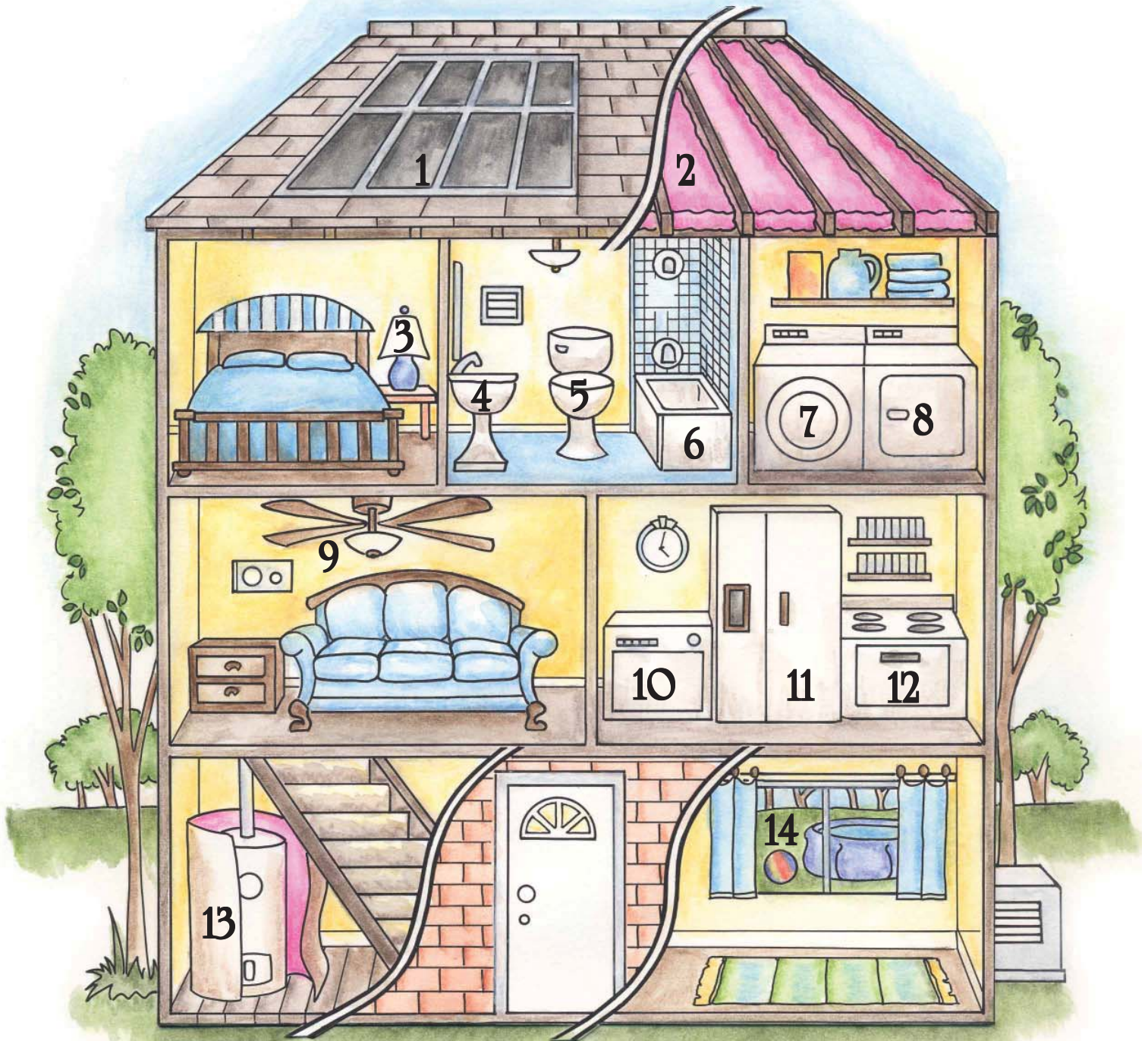


Cultivating habits that lower utility bills is a family affair. From the youngest to the eldest member of the home, everyone can learn to be energy efficient.

Lowering the utility bill can be fun! Make a game of it. Post an Energy Efficiency Chart on the refrigerator and keep track of the families' energy savings activities. The family member who accomplishes the most to conserve each week receives a treat. Use the money saved from lowering a utility bill each month to sponsor "Family Night" and rent a movie, buy a special dessert, or any other activity the family might enjoy doing together. You can also foster a closer relationship with loved ones when you make energy conservation a family affair. Look on the next page for energy conservation tips.

Conservation House

FLORIDA PUBLIC SERVICE COMMISSION



1. Solar Panel - Use solar energy.
2. Attic/Insulation - Make sure you have sufficient insulation.
3. Lamp - Use fluorescent light bulbs.
4. Faucet - Don't leave water running.
5. Toilet - Replace older toilets with low-flow toilets.
6. Shower - Showers use less water than baths.
7. Washer - Wash full loads

8. Dryer - Clean the lint from the filter after every load.
9. Ceiling Fan - Fans improve airflow.
10. Dishwasher - Be sure the dishwasher is full.
11. Refrigerator - Don't keep your refrigerator too cold.
12. Stove - Use tight-fitting covers on pots and pans.
13. Water Heater - Insulate your water heater.
14. Window - Weatherstrip your windows.



Can you guess the answers to these energy riddles? The answers are listed at the bottom of the page.



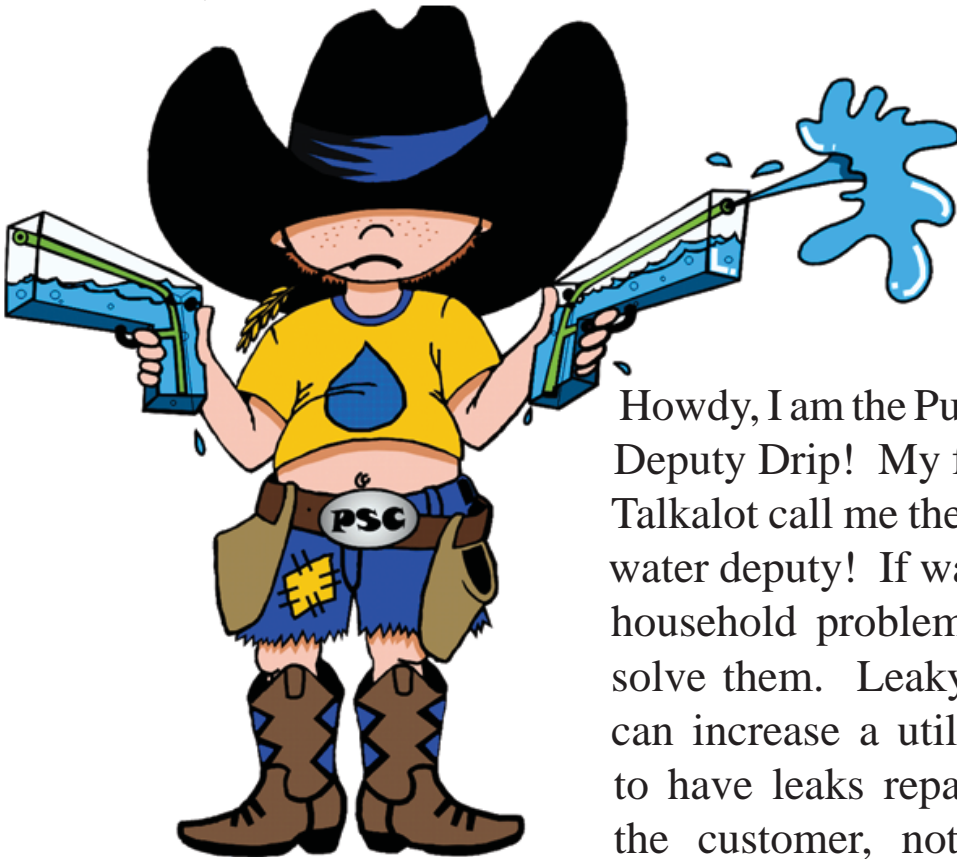
1. Why did the foolish Gardener plant a light bulb?
2. How do energy conscious people feel about wind power?
3. How do we know that wind power is so popular?
4. How did Benjamin Franklin feel when he discovered electricity?
5. What does the nuclear scientist do in his spare time?
6. How is energy conservation like a baseball team?
7. What is burned by cars driven late at night?
8. How are renewable power plants like people who enjoy going to the beach?
9. In which part of the jail are energy criminals kept?
10. What is a renewable energy source that is used every day at your school?
11. What did the solar cells say to their cloudy boss?
12. How many energy students does it take to change a light bulb?

Answers

1. He wanted to grow a power plant. 2. They're blown away. 3. Because it has so many fans. 4. He was shocked. 5. Goes fission. 6. They can both use a switch hitter. 7. Midnight oil. 8. They all like sun, wind, and water. 9. The fuel cells. 10. Brain power. 11. We need rays. 12. None! They're smart enough to use energy-efficient compact fluorescent bulbs which rarely need to be replaced.

Source: Energy Information Administration

DEPUTY DRIP



Water Watch out there now Partner !

Howdy, I am the Public Service Commission's Deputy Drip! My friends Electra and Tammy Talkalot call me the rough-ridin', no-nonsense water deputy! If water drips are a part of your household problems, I am here to help you solve them. Leaky faucets are common and can increase a utility bill, so it is important to have leaks repaired. Did you know that the customer, not the utility company, is responsible for any leaks on the customer's side of the water meter?

You can help conserve water by:.

- ◆ Not letting the water run unnecessarily while you brush your teeth.
- ◆ Installing low-flow aerators on all water faucets.
- ◆ Taking shorter showers and shallow baths.
- ◆ Repairing dripping faucets by replacing washers.
- ◆ Cleaning driveways and sidewalks with a broom; using a hose can waste hundreds of gallons of water!
- ◆ Washing only full loads in your automatic dishwashers and washing machines.
- ◆ Rinsing your dishes in a sink full of water or by pouring water over them all at once rather than leaving the faucet running.
- ◆ Watering your landscape only when needed.
- ◆ Installing a toilet dam or displacement device such as a bag, bottle, or brick to cut down on the amount of water needed for each flush.
- ◆ Using mulch in plant beds to control weeds and retain moisture.

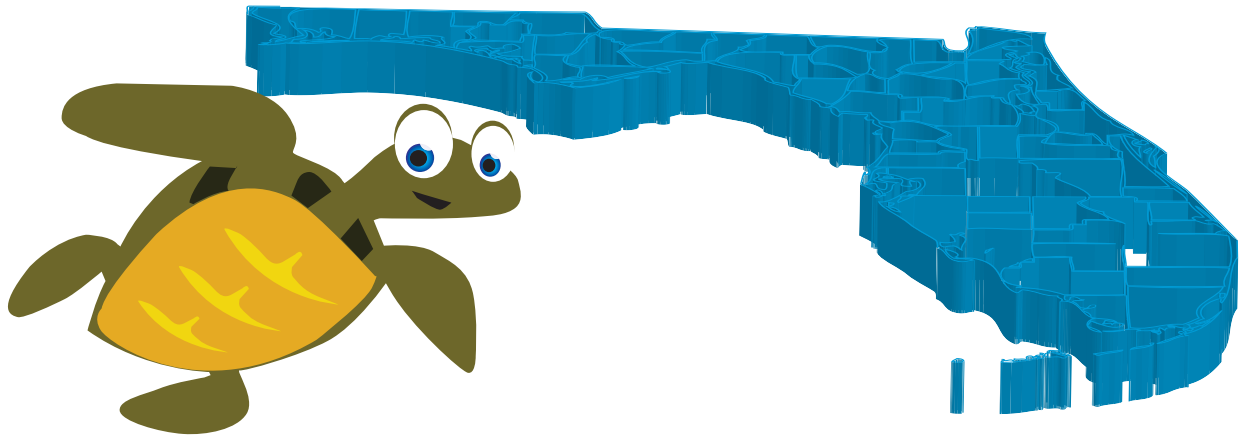


Save Money By Conserving Water



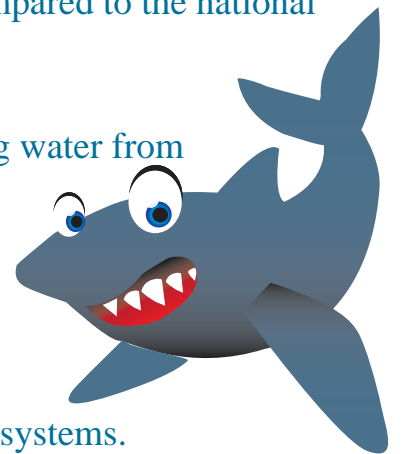
Only 2.5 percent of the world's water is fresh water, and less than 1 percent of the fresh water is usable. Florida's growing population is putting greater stress on this essential and limited resource.

Using water wisely means saving money on water bills and protecting the water supply for future generations.



Here are some Florida water facts – share them with your family and friends!

- 💧 The average Floridian uses about 175 gallons of water per day (compared to the national average of 110 gallons per day).
- 💧 About 90 percent of Florida's 18 million residents get their drinking water from public supplies.
- 💧 About 62 percent of the water used comes from the Florida aquifer system; 17 percent comes from the Biscayne aquifer.
- 💧 Surface water sources include lakes, rivers, and the managed canal systems.
- 💧 Florida has a total water area of 4,308 square miles.



Check out the colorful house and see how many water-saving tips you already use.

INDOOR TIPS

Take a shorter shower and install a low-flow shower-head with a 2.5 gpm (gallons per minute) rating.

When buying new appliances, consider energy efficient models.

Use less water for baths. A full tub uses 35-50 gallons.

When washing dishes by hand, use tubs of water instead of running water.

Store drinking water in the refrigerator to get it cold rather than letting the tap run.

Use the garbage disposal sparingly. Compost vegetable scraps.

Install an instant water heater on the sink so the water doesn't need to run while heating up.

Use the dishwasher with full loads.

If the handle sticks in the flush position, water runs constantly. Replace or adjust the handle.

Dispose of tissue, insects, and other waste in the trash.

Check tank for leaks.

Wash clothes with full loads and cold water to save water and energy.

Running the tap water for 2 minutes wastes 3-5 gallons of water.

Top loading washers use about three times as much water as front-loading washing machines.

Each toilet flush uses 5-7 gallons of water. Replace older models with high efficiency toilets that use less than 2 gallons per flush.

OUTDOOR TIPS

Know your local area weather patterns. A strong rain can eliminate watering needs up to two weeks.

Collect water from the roof into a rain barrel.

Use rainwater for watering landscape plants.

Landscaping with Florida-friendly, drought tolerant plants, trees, and grasses.

Turn water off at the spigot to reduce leaks. Place a shut-off nozzle on the hose to control flow.

Group plants together based on similar water needs.

Mulch to retain moisture and reduce weeds.

Use a sprinkler timer.

Buy a rain gauge.

Install soaker hoses or drip irrigation for flower beds and shrubs.

Watering with a hose uses 10 gallons per minute.

A pinhole-sized leak wastes 170 gallons a day.

Check sprinkler systems regularly to make sure they are operating correctly.

Make sure water from the sprinkler falls on grass and shrubs, not on paved areas.

TAMMY TALKALOT



Telecommunications

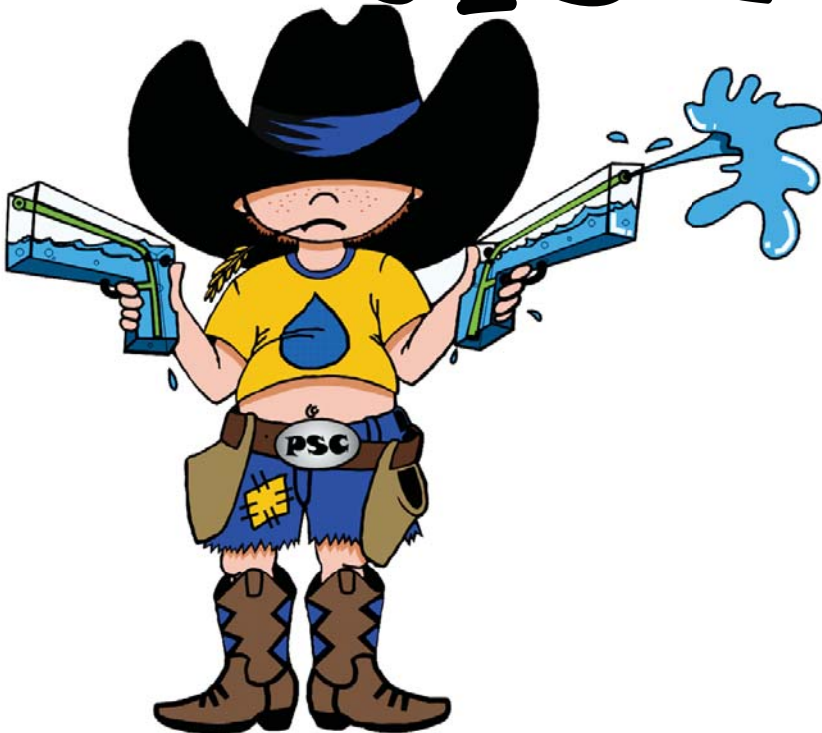
Hi, I'm Tammy Talkalot, and this is my dog, Bo. As Electra mentioned, I am the expert on telecommunications. My friends at the PSC wanted me to share a few ideas on telephone service. Some of you may already know that on March 10, 1876, Alexander Graham Bell invented the telephone. And, in 1877, Florida's first telephones became available in Pensacola and Jacksonville.

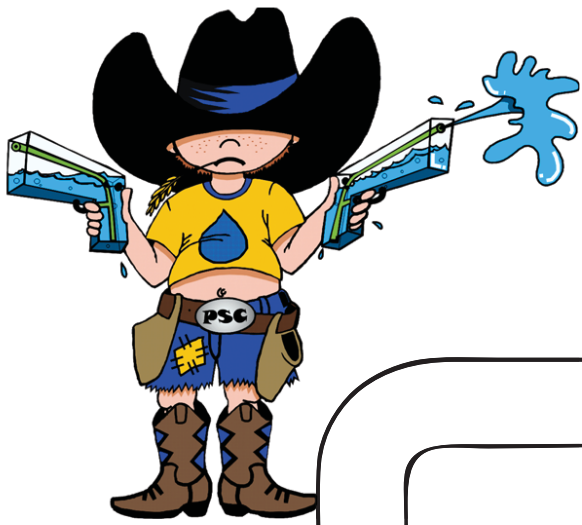
Did you know that Florida has 17 area codes? So, if you live in Tallahassee and your grandparents live in Tampa, you have to call a different area code to talk to them. Why do we have area codes? Area codes make it possible to create more telephone numbers. Because Florida has a growing population, and the use of cell phones, pagers, fax machines and computer modems has increased, area codes are being exhausted. Prior to 1995, our state had only four area codes: 305, 407, 813, and 904. Since then, another 14 area codes have been added. Can you list all of Florida's area codes? Try it out. The answers appear at the bottom of the page.

850	727	561	386	813	954	904
941	754	352	863	305	407	239
786	321	772				



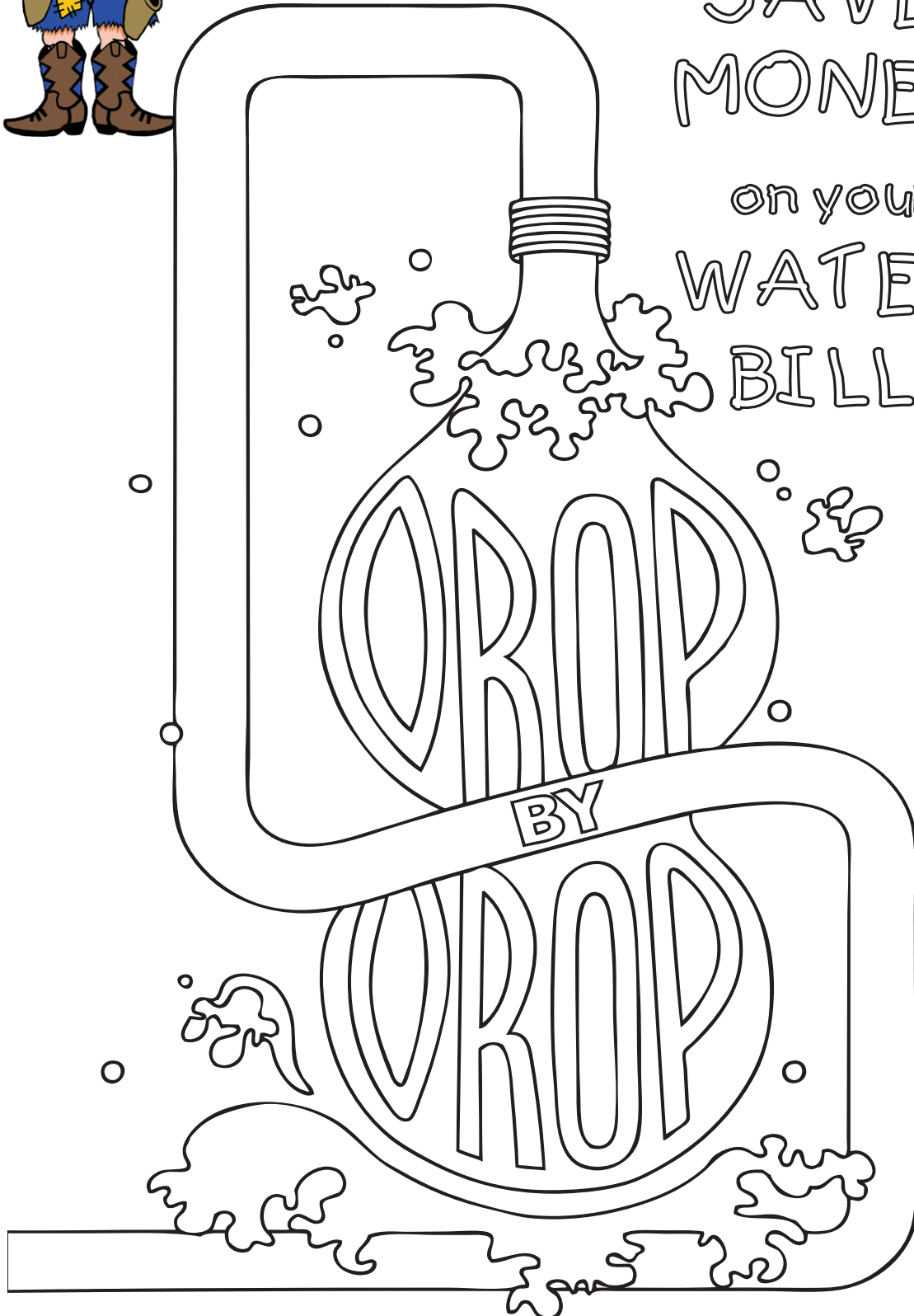
THE CONSERVATION GAMES SECTION





Deputy Drip would like you to help him color this picture

SAVE
MONEY
on your
WATER
BILL



All About Conservation

Directions: Fill in the correct letters to spell each word.

C_NS__VAT__N

COM_I_SION

W_T_R

EN__GY

INVES_OR-_WNED

E_E_TRIC

MET__

_OL_R

P_WER

OUTA_ES

REGU_ATI_N

N_TUR_L GAS

U__LI_Y

R_USE

WA_ER DRO_

RAT__AKING

INTE_RUPT_ONS

POW_R SURG_

G_L_ON

W_SH_R

TEM_ER__URE

HO__EH_LD

LEAK_ FAU_ET

CONS_MP_ION

VEN_ILA_ION

INS_LA_E

FIL_ER

W_A_HER-_TRI_PING

Answers from left to right: conservation, commission, water, energy, investor-owned, electric, meter, solar, power, outages, regulation, natural gas, utility, reuse, water drop, ratemaking, interruptions, power surge, gallon, washer, temperature, household, leaky faucet, consumption, ventilation, insulate, filter, weather-stripping



GREEN THINKING

W P L P A L R J W S S S K N I
B C C C O E U H Y T H L P O O
T U V G D L R D M L E Y C I M
L N C U E R L Z L S P S A T U
E L C R E S O U R C E S R A N
N E I P M C U E T C N A D V I
E Q A F K F P E M I E L B R M
R P P P D A T A R L O G O E U
G W A J P N G B C O I N A S L
Y C C S Y A A Y O S M N R N A
G J W I Z Z C L A T C V D O W
R E F I S E I R E T T A B C M
N E N E R E T A W U Z L N H D
E E T R E E S H N L J P E S C
S J C B P L A S T I C V C S J

Find the following words related to recycling and energy use:

**ALUMINUM
CANS
ENERGY
MAGAZINES
PLASTIC
REDUCE
TREES**

**BATTERIES
CARDBOARD
GLASS
NEWSPAPERS
POLLUTION
RESOURCES
WATER**

**BOTTLES
CONSERVATION
LANDFILL
PAPER
RECYCLE
REUSE**



Take a look at the eye chart.
Can you figure out the message?

E

NE

RGYR

ESOUR

CESARE

DWINDLIN

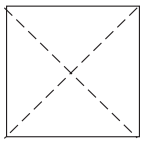
GQUICKLYPL

EASEHELPCONS

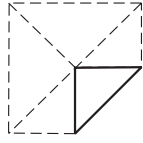
ERVEENERGYNOW

Message: Energy Resources Are Dwindling Quickly Please Help Conserve Energy Now

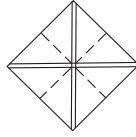
Conservation Makes Sense!



Start with picture side down.



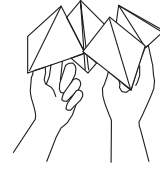
Fold each corner to the center.



Now, turn the paper over.



Again, fold each corner to the center.



Put a finger in each section and use.

How can I save electricity?

- Turn off the lights when leaving a room
- Set your thermostat to 68° in winter and 78° in summer
- Use ceiling fans
- Insulate your hot water heater
- Hang clothes outside to dry

How can I conserve water?

- Fix leaky faucets and toilets
- Wash only full loads in the dishwasher
- Use the proper load setting (and cold water) when you wash clothes
- Take shorter showers
- Water the lawn between 6 p.m. - 9 a.m.
- Plant shade trees
- Lower the water heater temperature to 120°
- Check and replace air filters regularly
- Use compact fluorescent light bulbs

How can I use resources more wisely?

- Buy products that use recycled materials
- Buy eco-friendly products

How can I save energy at home?

Why should I recycle?

- Recycling reduces landfill waste
- Recycle paper and cardboard
- Recycle glass and plastic


What should I recycle?

Practice the three R's – REUSE, RECYCLE, AND REDUCE

Make a 3-Rs pyramid.

Cut out the figure, fold on the lines, and glue the tabs.


REUSE




Informative Web Sites

- National Institute of Environmental Health Sciences
<http://kids.niehs.gov>
- Earth911.com Making Every Day Earth Day
<http://earth911.com>
- The Resourceful Schools Project
<http://www.resourcefulschools.org>
- The Container Recycling Institute
<http://www.container-recycling.org>
- Environmental Protection Agency
<http://www.epa.gov>
- All Free Crafts.com
<http://www.allfreecrafts.com>


RECYCLING FACTS



Recycling 1 aluminum saves enough energy to run a computer for 3 hours




Recycling 1 ton of paper saves 17 trees and 7,000 gallons of water



Recycling 5 plastic bottles makes enough fiberfill for a jacket

Glass can be recycled forever!

A computer disk takes 500 years to degrade



RECYCLE

Save energy and recycle almost everything!

- Aluminum and steel cans
- Paper, magazines, cardboard
- Glass bottles and jars
- Plastic bottles and bags
- Wood, branches, and yard waste
- Tires, appliances, electronics, paint, and oil









REDUCE

- Buy in bulk and bring your own bags
- Buy products with packaging that can be recycled or reused
- Buy only what you need (and use it all)
- Use resources wisely and reduce waste
- Say "no" to junk mail



Save Money By Being Energy Efficient

The following tips will help you save money while staying comfortable:

-  Keep the drapes closed in hot weather to block the sun.
-  During the summer, turn up your thermostat to 80 degrees or higher when away from the house. By adjusting your thermostat 10-15 degrees higher in the summer for eight hours, consumers can save about 10 percent on cooling costs each year.
-  Buy a programmable thermostat to pre-set the house temperature throughout the day.
-  Use dimmer controls, high/low switches, or three-way bulbs to adjust the level of lighting to exactly what is needed.
-  Wash clothes in cold or warm water whenever possible.
-  Keep the refrigerator between 36 and 38 degrees and the freezer between zero and five degrees.
-  Limit the number of times the refrigerator door is opened during the day.
-  Make sure that the refrigerator is kept at least partially full. Locate the refrigerator away from sources of heat, such as sunlight, ovens and dishwashers.





Conservation begins with you,
and the things that you do at home every day!

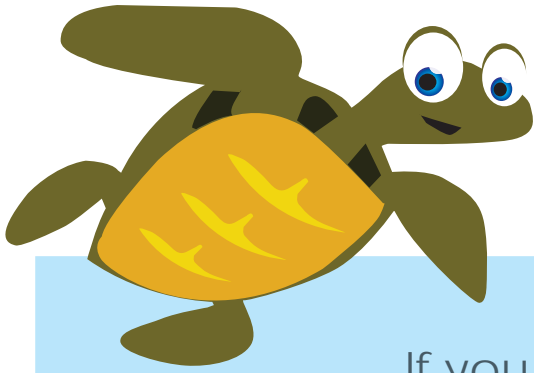
CONSERVE
YOUR
WORLD



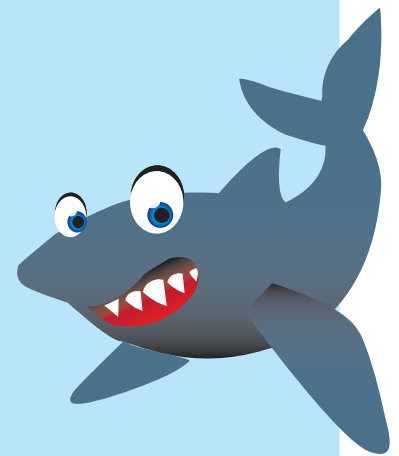
Water Conservation Helps You Save Money

The Florida Public Service Commission offers these water conservation tips to aid in saving money this summer:

-  When watering the lawn, water in the cooler times of the day, specifically in the evening, to avoid rapid evaporation. This is better for the lawn and allows a reduced amount of water to be used. Check the weather forecast before watering outside. If there is a chance of rain, hold off to see if mother nature will help out.
-  Using less water in the bathroom can also help conserve water. The simplest ways are to take shorter showers and turn off the water while brushing teeth. To find out whether a bath or shower saves more water try plugging the drain while taking a shower. If there is less water in the tub after the shower than is normally used for a bath, consider taking more showers.
-  If using a dishwasher, remember to always do full, instead of partial, loads. Using a dishwasher efficiently instead of doing dishes by hand will save water and money.
-  Be sure to check all household faucets for leaks annually.



If you have questions, call the
Florida Public Service Commission's
Office of Consumer Assistance & Outreach at
1-800-342-3552,
Fax questions to
1-800-511-0809,
or contact the FPSC via e-mail:
contact@psc.state.fl.us
See our Internet home page at
www.floridapsc.com



Or write:
Florida Public Service Commission
Office of Consumer Assistance & Outreach
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

