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August 31, 2007

VIA FEDERAL EXPRESS
Hon. Beth O'Donnell
Executive Director
Public Service Commission
211 Sower Blvd.
Frankfort, KY 40601

Re: ***Application of Kentucky-American Water Company, a/k/a Kentucky American Water for Certificate of Convenience and Public Necessity Authorizing Construction of Kentucky River Station II ("KRS II"), Associated Facilities, and Transmission Line*; Case No. 2007-00134.**

Dear Ms. O'Donnell:

We have enclosed, for filing, documents responsive to the data requests of the Citizens for Alternative Water Solutions.

Please file-stamp one copy and return it to us in the enclosed, self-addressed stamped envelope.

Thank you, and if you have any questions, please call us.

Sincerely,

Edward T. Depp

ETD/lb
Enclosures
cc: All Parties of Record (w/encl.)
Barbara K. Dickens (w/encl.)
John E. Selent, Esq. (w/o encl.)

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38306-1

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY-AMERICAN WATER COMPANY FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY AUTHORIZING THE CONSTRUCTION OF KENTUCKY RIVER STATION II, ASSOCIATED FACILITIES AND TRANSMISSION MAIN	))))))	CASE NO. 2007-00134

LOUISVILLE WATER COMPANY RESPONSES TO THE DATA REQUESTS OF THE CITIZENS FOR ALTERNATIVE WATER SOLUTIONS

Louisville Water Company ("LWC"), by counsel and consistently with its August 27, 2007 filing cover letter to the Public Service Commission of the Commonwealth of Kentucky (the "Commission"), hereby produces the responsive documents identified in its August 27, 2007 responses to the data requests of Citizens for Alternative Water Solutions ("CAWS"). For convenience of review, the attached documents are indexed to the particular data request to which they are responsive.

Respectfully submitted,

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-and-

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served by was served via first-class United States mail, sufficient postage prepaid, on the following individuals this 31st day of August, 2007:

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Counsel to Louisville Water Company

INDEX OF RESPONSIVE DOCUMENTS

Tab 5. Document(s) responsive to CAWS data request #5.

SECTION 2

PUT IT TO GOOD USE

OUTCOME: WHAT STUDENTS WILL LEARN

- How they use water every day.
- Identify what activities take the most water.
- Identify ways to use water wisely.

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Math

MA-E-1.1.2 Operations of addition, subtraction, multiplication and division.

Writing

WR-E-1.2 Personal Writing

WR-E-1.3 Literary Writing

Social Studies

SS-E-3.1.1 Scarcity requires people to make choices about using goods, services and limited resources.

SS-E-3.1.2 Consumers use goods and services to satisfy economic wants and needs.

SS-E-3.1.3 Every time a choice is made, an opportunity cost is incurred.

Science

SS-E-2.1.2 Earth materials provide many of the resources humans use. The varied materials have different physical and chemical properties, which make them useful in different ways, for example as building materials or growing the plants we use as food.

SS-E-3.1.2 Organisms have basic needs. For example, animals need air, water, and food; plants need air, water, nutrients, and light. Organisms can survive only in environments in which their needs can be met.

Practical Living

PL-E-3.3.1 There are community organizations that provide health and safety services.

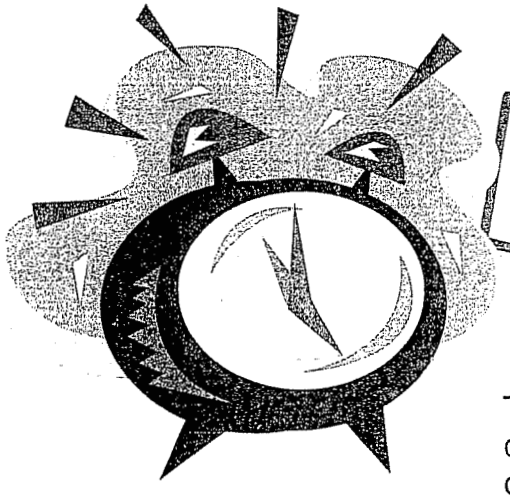
PL-M-3.3.1 A range or resources and services are provided by community agencies.

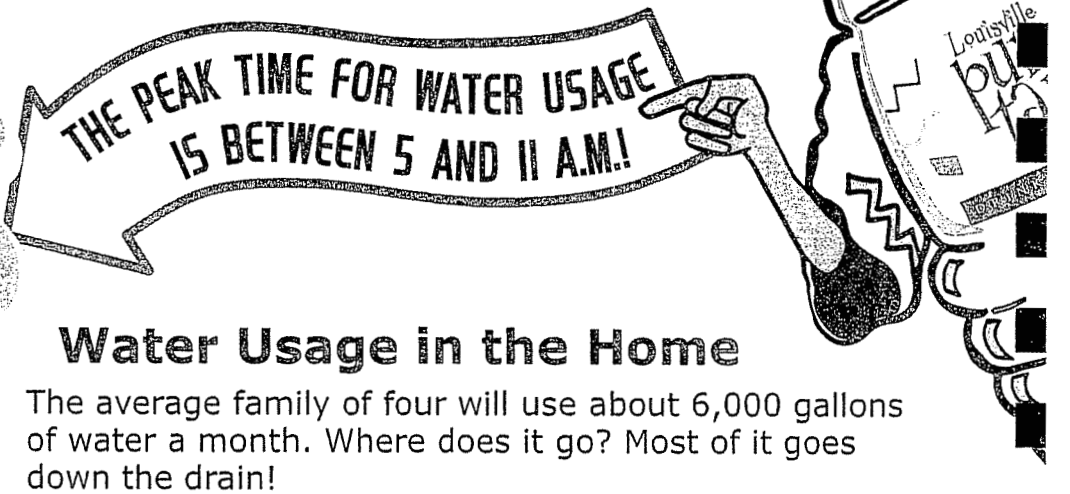
PUT IT TO GOOD USE

Just How Much?

We all need 2/3 of a gallon of water every day for good health. But throughout the day, each person uses about 1,668 gallons of water! (That's over 13,000 cups!) How? Water impacts just about everything you do. It helps produce the food you eat, the car you drive, the clothes you wear and the fun stuff you do!

In the United States, we use over 39 billion gallons of water a day. It's no wonder the supply in many communities is tight! Some areas, especially southern California, have water conservation laws to limit water usage.





Water Usage in the Home

The average family of four will use about 6,000 gallons of water a month. Where does it go? Most of it goes down the drain!

Household water usage (average figures)

Drinking and cooking.....15 gallons
Dishwasher (1 load daily).....5-10 gallons
Dishwashing by hand.....20 gallons*
Toilet.....5-7 gallons per flush
Bath.....20 gallons for a full tub
Shower.....30 gallons for a 5-minute shower
Washing machine.....30-40 gallons for a full load
Garbage disposal.....3 gallons (daily)
Outdoor watering.....5-10 gallons per minute
Handwashing.....2 gallons every time*
Tooth brushing.....2 gallons with tap running
Shaving.....3-5 gallons*

* with tap running

NOTE: Sections 1 and 2 complement each other. Section 1 deals with a global understanding of water. Section 2 focuses on how students and their families use water every day.

Water Usage Outside the Home

The majority of water usage happens outside the home. Agriculture is the biggest user of water. It takes millions of gallons of water to grow the food we eat and the products we use for clothing. For example, it takes about 115 gallons of water to grow enough wheat to make one loaf of bread. Farmers irrigate water for their crops, and that accounts for a big part of water usage.

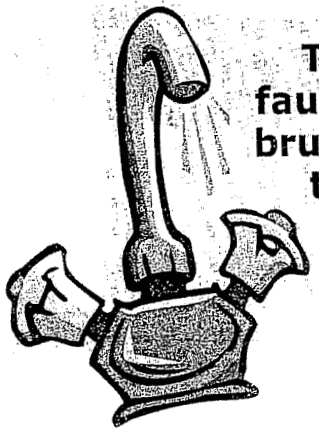
Water is an important part of our energy supply. Power plants often burn coal to turn water into steam. The steam supplies the energy to run the machines that produce electricity.

Industry uses water more than any other material. For example, it takes about 32,000 gallons of water just to make a car. Most of that goes to make the rubber tires.

Recreation is also an important use of water. Swimming, boating and skiing all depend on water!

Using Water Wisely

In Louisville, we're lucky to have an abundant supply of water with the Ohio River as our source. But in many parts of the country, where the supply is not as plentiful, water utilities will put conservation rules in effect. Even though our supply is abundant, it's important to teach children to use water wisely.



Turn off the faucet while you brush your teeth to save 2-3 gallons of water.

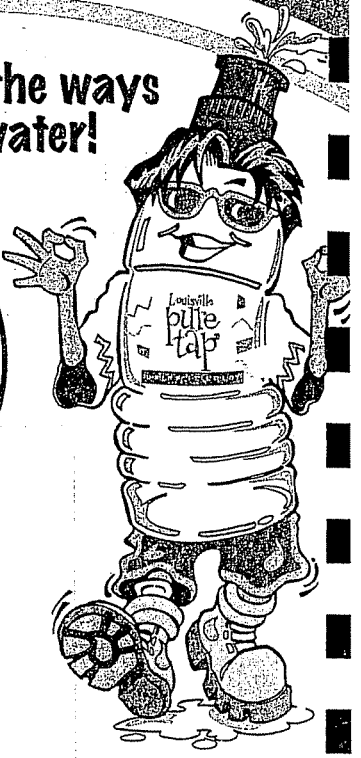
Keep a container of cold drinking water in the refrigerator instead of running the faucet.

Take a shorter shower.

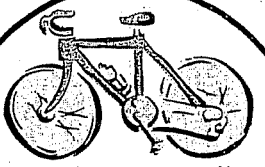
Sweep off the driveway instead of using a water hose.

WATER WOWS!

Look at all the ways we use water!



Growing a day's food for one adult takes about **1,700 gallons** of water.



Steel in a 30 lb. bicycle requires **480 gallons** of water!

It takes...

9 gallons of water to make a can of fruit or vegetables.

10 gallons of water to make one can of soda.

13 gallons of water to make a gallon of paint.

24 gallons of water to make a pound of plastic.

115 gallons of water to grow enough wheat for one loaf of bread.

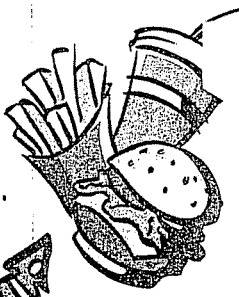
400 gallons of water to grow enough cotton for a shirt.

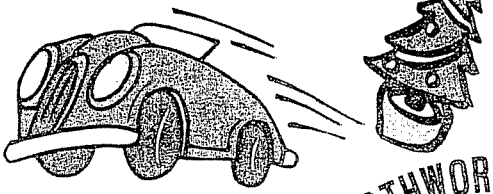
1,500 gallons of water to make a cheeseburger, fries and soda.

1,800 gallons of water to grow enough cotton for a pair of blue jeans.

4,776 gallons of water to grow a holiday tree.

32,000 gallons of water to make a car.





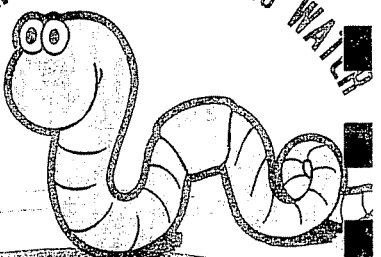
Americans drink more than **1 billion** glasses of tap water every day.

Cows must drink **4 gallons** of water to make 1 gallon of of milk.

A TOMATO IS 95% WATER

YOUR BODY IS 70% WATER

AN EARTHWORM IS 80% WATER



Louisville pure tap®

Activity #1: In Your House

Objective:

Students will become aware of how they use water in the home and where they use the most water.

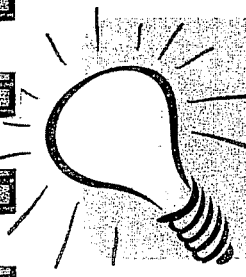
Time: A week of recording information at home. Thirty minutes to discuss results.

You'll need:

- Copies of the water usage chart
- Copies of the Pure Tap Manor illustration

Here's what to do...

1. Give each student a copy of the Pure Tap Manor sheet on page 2-6 and the water usage chart.
2. Have students chart their water usage for a week.
3. Calculate the water usage for each day then a total for the week.



Think about it!

What activity took the most water?

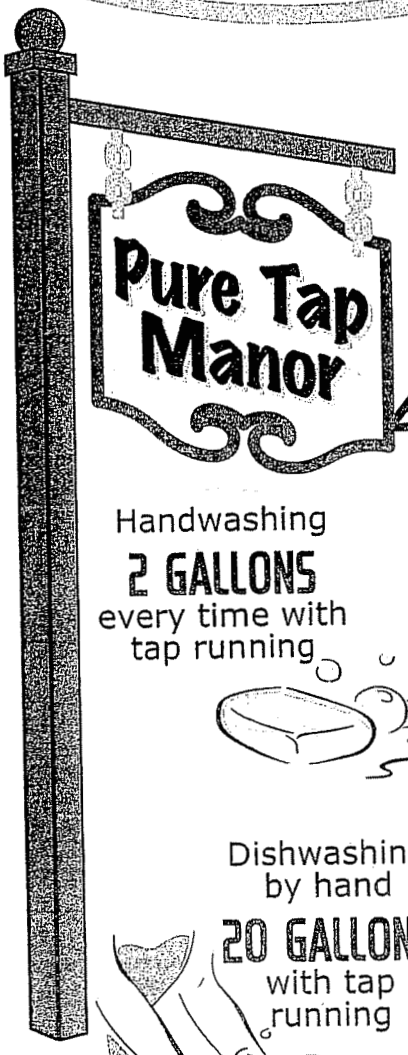
On which day of the week did you use the most water?

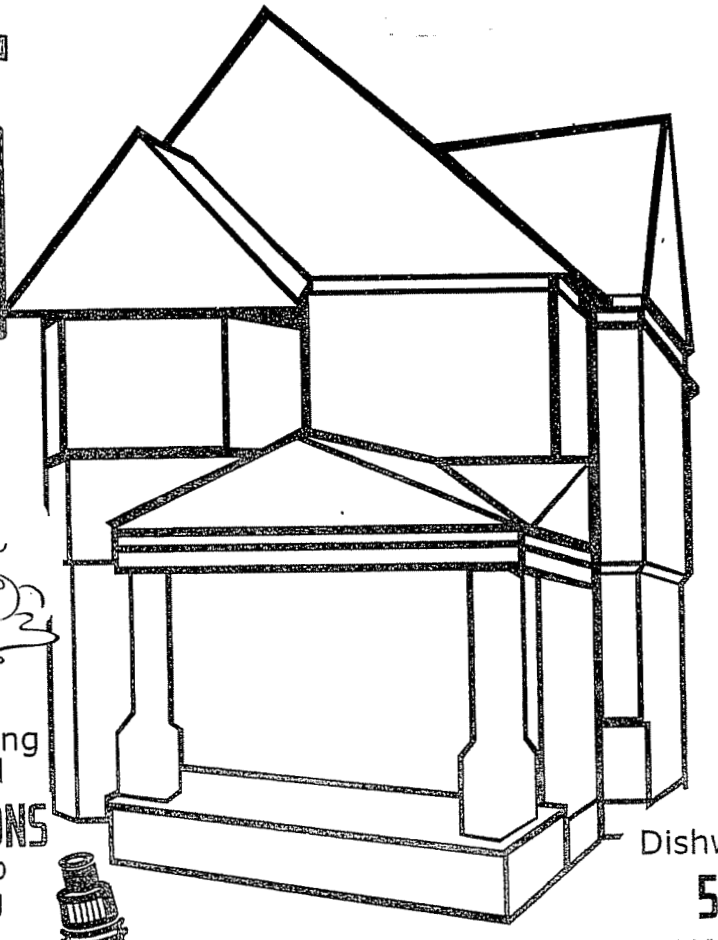
What could you do to reduce the amount of water used?

ONE STEP FURTHER...

Visualizing a cup of water might be easier to students to grasp how much water they use. To add another math portion to this exercise, have students determine how many cups of water were involved in each activity for the week. Assuming a cup is 8-ounces, there are 8 cups of water in one gallon.

HERE'S HOW MUCH WATER A FAMILY CAN USE EVERY DAY!



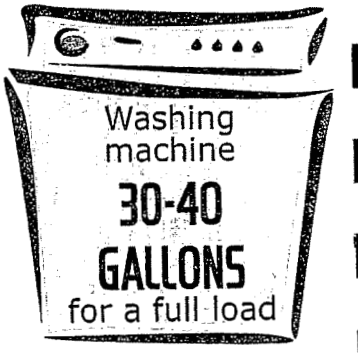


Shaving
3-5 GALLONS
with tap running

Shower
30 GALLONS
for a 5 minute shower

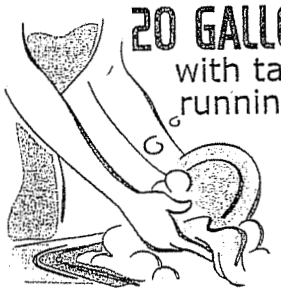
Tooth brushing
2 GALLONS
every time with tap running

Handwashing
2 GALLONS
every time with tap running



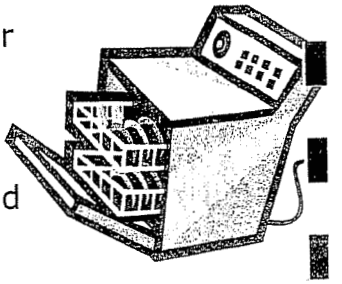
Washing machine
30-40 GALLONS
for a full load

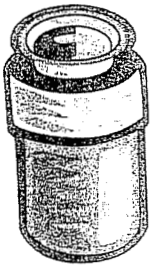
Dishwashing by hand
20 GALLONS
with tap running



Drinking and cooking
15 GALLONS

Dishwasher
5-10 GALLONS
for one load

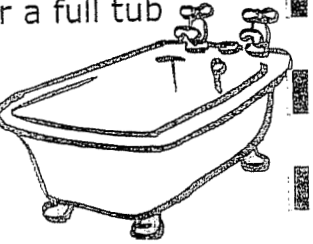


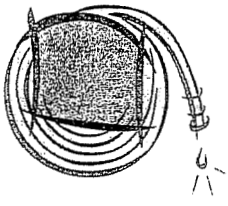


Garbage disposal
3 GALLONS
daily

Toilet
5-7 GALLONS
per flush

Bath
20 GALLONS
for a full tub





Outdoor watering
5-10 GALLONS
per minute

Activity #1: MY Water Usage Chart

Student Name

_____

Instructions:

For each day mark the number of times you do the activity. For example, if you brush your teeth twice on Sunday put a "2" under Sunday. If you help your parents cook or do laundry, count that.

Add together the total number of times you do each activity in the week. Then figure the water you used for each activity and the total amount of water you used that week.

Activity	SUN	MON	TUE	WED	THU	FRI	SAT	Total number of times for the week	Average water used	Total gallons used for the activity
Brushing teeth									2 gallons with water running	___ X 2 = ____
Washing hands									2 gallons with water running	
Taking a shower									30 gallons for a 5-minute shower	
Taking a bath									20 gallons for a full tub	
Flushing the toilet									5 gallons	
Getting a drink									1 cup (it takes 8 cups for a gallon)	
Running a dishwasher									10 gallons	
Washing dishes by hand									20 gallons	
Laundry									30 gallons per load	
Cooking a meal									4 gallons per meal	
Watering the lawn									300 gallons a day	
Total Weekly Water Use										

Activity #2: "Pure Tapville"

Objective:

Students will design a town and learn how water usage is distributed throughout the town.

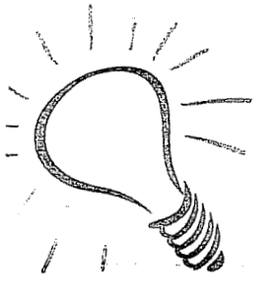
Time: One hour

You'll need:

- Big sheets of paper
- Crayons/markers/ cut-outs of homes,logos for businesses, etc.
- Copy of "Pure Tapville Water Usage"

Here's what to do...

1. Divide students into groups of three or four. Give each group paper, crayons/markers/logos and a copy of "Pure Tapville Water Usage."
2. Relay the challenge: Each group will design a town called Pure Tapville. You can put anything you want in the town! The challenge is to design a town that only uses 50,000 gallons of water every day. Students should draw the places on their paper and mark how much water each will use every day. Remind students to think of services that are essential to the town.
3. Compare the drawings to find out the decisions the children made.
4. Now – give each group a new piece of paper. Have them design Pure Tapville with everything they need or want in a town. How much water does the town really need every day?



Think about it!

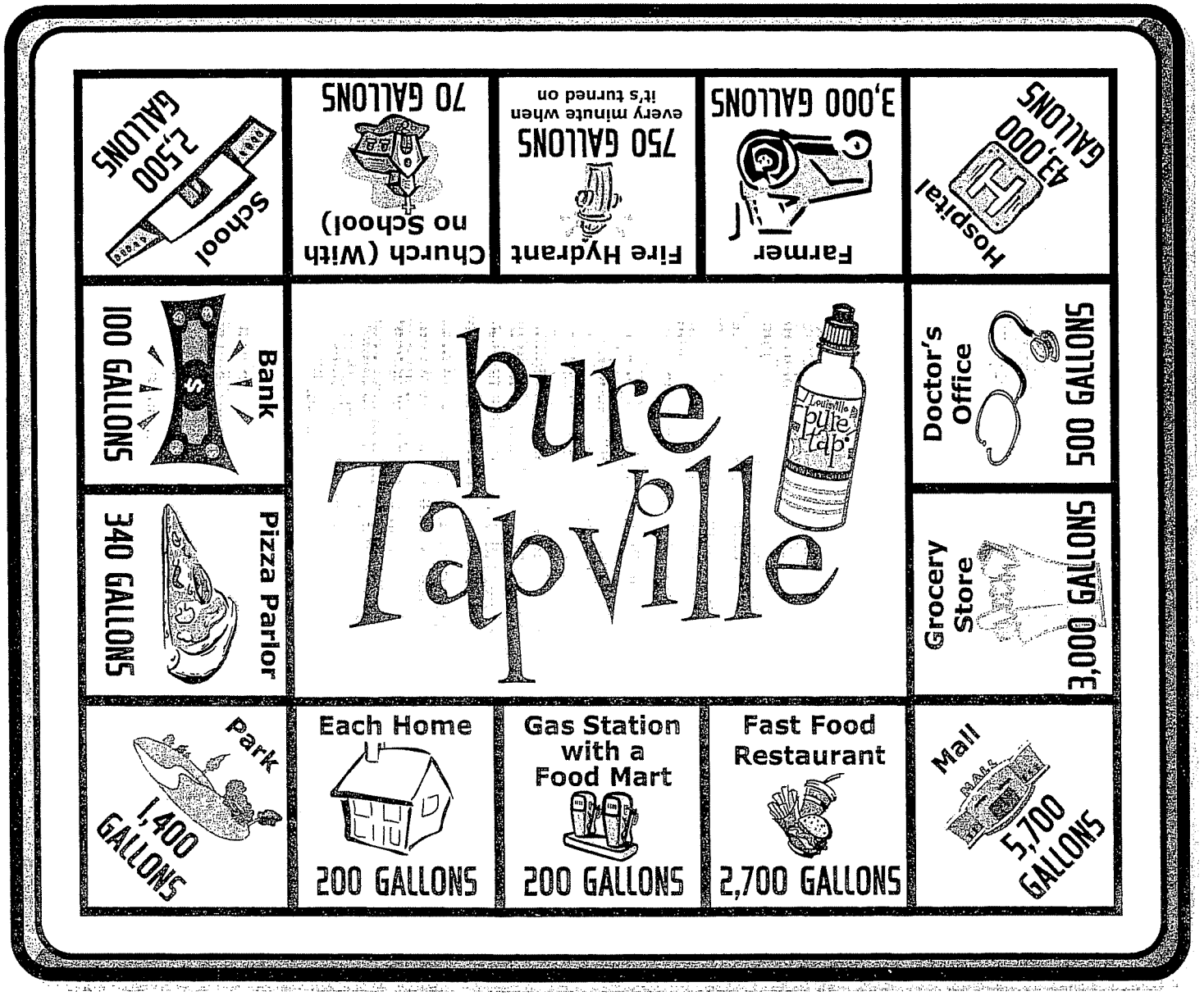
What decisions did you make to limit water usage?
Who were the biggest water users in their town?
Who used the least amount of water?
Are there things you could do to conserve water in the town?

"Pure Tapville Water Usage"

WELCOME TO **Pure Tapville**

You live in the lovely town of Pure Tapville – a place where water impacts just about everything you do!

Remember – the numbers show the average water usage for **ONE DAY!**



Activity #3: The Day the Water Stopped

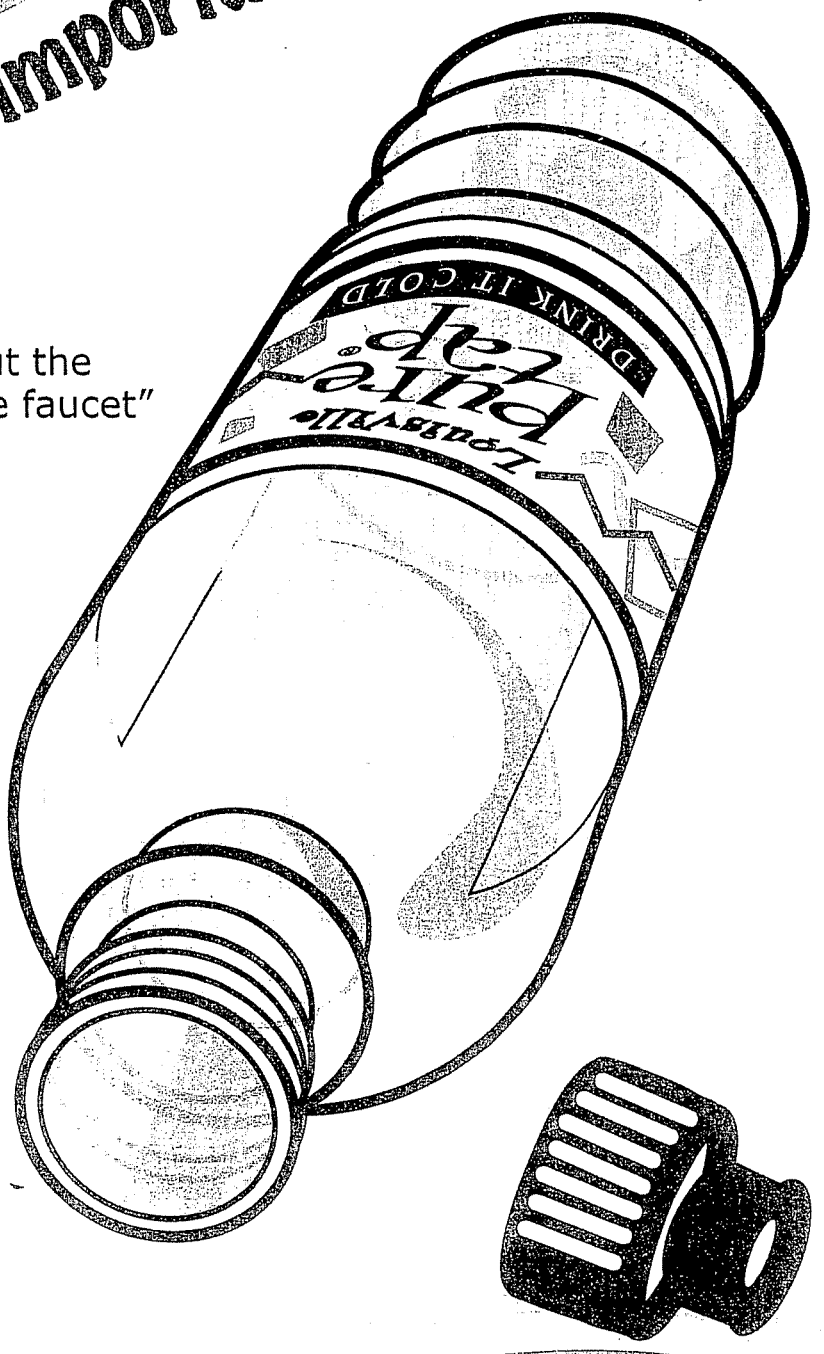
Write about the importance of water.

Objective:

Students think and write about the implications of "turning off the faucet" for good!

Here's what to do...

This is a writing assignment. By now the children should understand the importance of water in nearly everything they do. What would happen if the water just stopped? What if someone turned off all the faucets for good? How would your life change? How could you get water?



How would you survive?

Louisville pure tap®

Open Response Question

Water is an important part of our life. Water is part of most things we do throughout the day.

A. Select two types of water usage.

B. Give examples of how water is used in each type.

Open Response Question

Water is an important part of our life. Water is part of most things we do throughout the day.

A. Select two types of water usage.

B. Give examples of how water is used in each type.

Scoring Guide

4–Student correctly identifies two types of water usage (health, at home, industrial, recreation, agriculture) and has an in-depth understanding of water's impact. Response includes more than one example for how water is used in each category. (Example: for industrial student understands water is used to make power, build cars, produce clothing, etc.)

3–Student correctly identifies two types of water usage and has a general understanding of how water is used in each category.

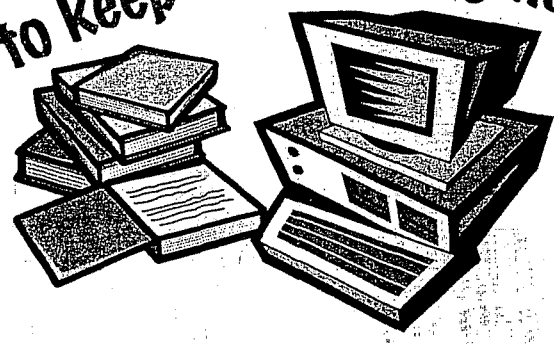
2–Student only identifies one type of water usage and has a limited understanding of how water is used.

1–Attempts to explain water usage, but answer is incorrect.

0–No attempt or relevant answer.

PUT IT TO GOOD USE

Check out these opportunities to keep the learning flowing!



Extra, Extra!!

Books:

Johnston, T. (1985) *Water, water.* New York, NY: Gareth Stevens Publishing. *Good resource for additional experiments.*

Cossi, O. (1993) *Water wars.* New York, NY: Green Willow Books. *Case studies on water supply issues in California and the Middle East.*

Web sites:

http://www.eduplace.com/activity/power.html *Students research how water is important to their community. Includes lesson plans.*

www.eduplace.com/activity/wasters.html *Lesson incorporates math and teaches students about wasting water.*

http://ga.water.usgs.gov/edu/ *Good information on different types of water usage. Includes activity center for children.*

http://water.nr.state.ky.us/wsp/wsp2.htm *Water conservation tips.*

http://www.epa.gov/kids/ *Loaded with information, projects and games.*

www.projectwet.org *Good activities for children; good resource for teachers.*

Louisville Water Company Opportunities:

www.tappersfunzone.com *Click on "H20 IQ" for an interactive quiz. Click on "Where's the water?" for more water trivia*