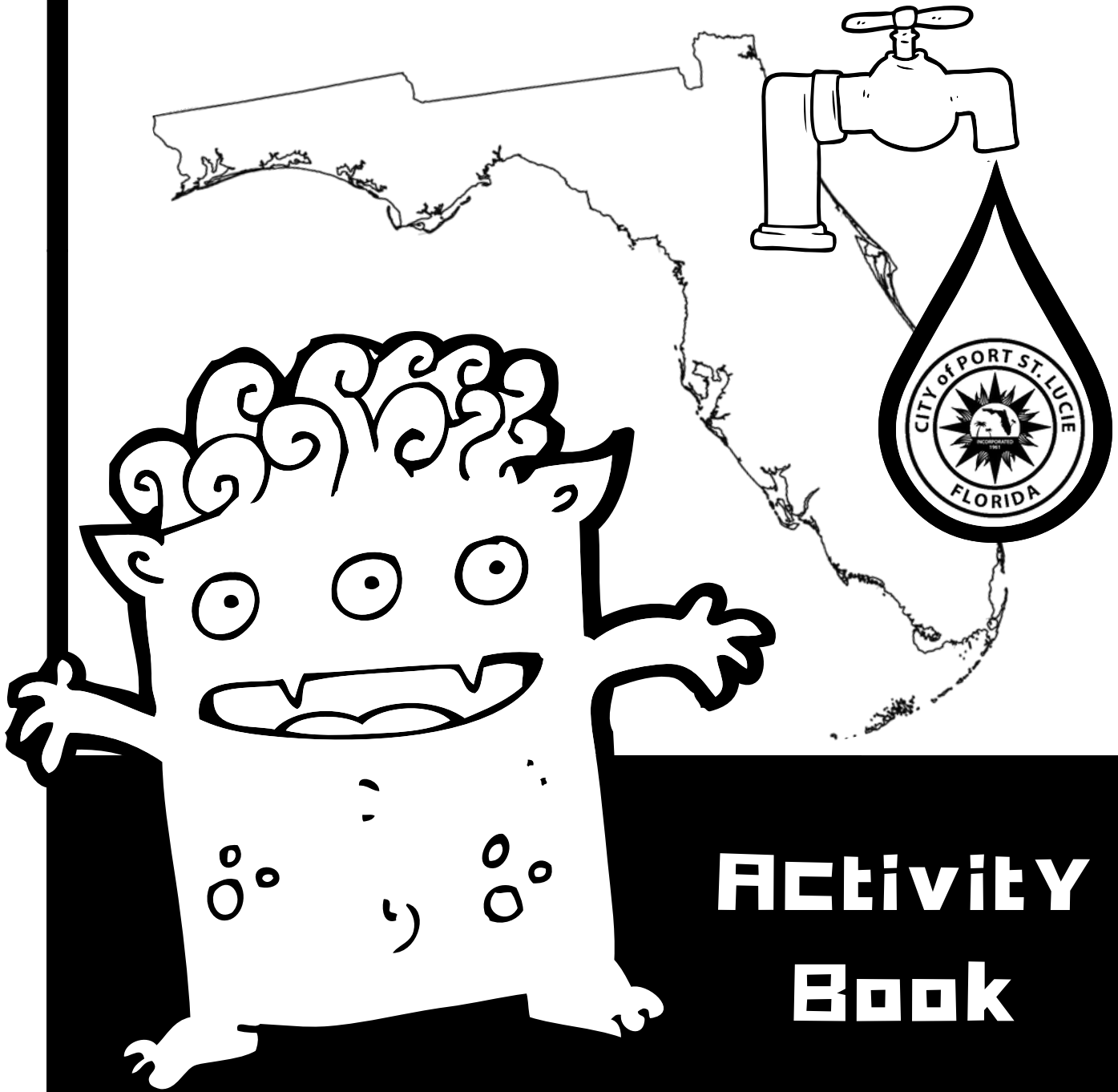


Water and Wastewater Wonders



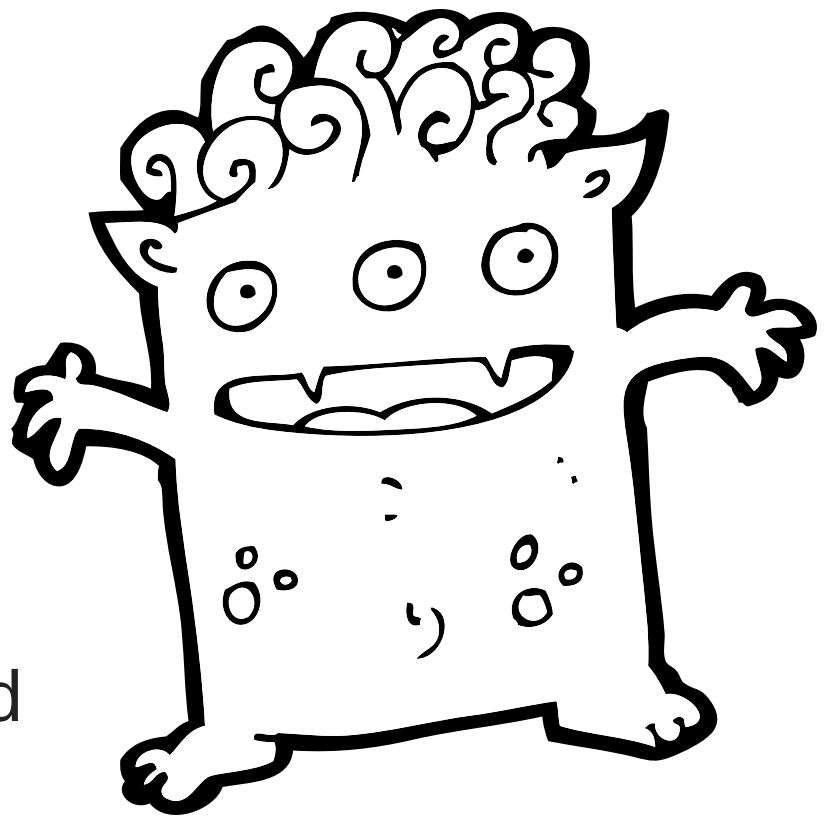
**Activity
Book**

Port St. Lucie Utility Systems

Meet Mikey, Friendly bacteria

Welcome to Mikey's wonderful world of water and wastewater! He is one of the friendly bacteria, or microorganisms, who lives in our wastewater treatment plant and feasts on things he finds in the water! Yum!

Explore
Port St. Lucie
Utility Systems
with Mikey
to learn about
our water and
wastewater and
how we treat it.

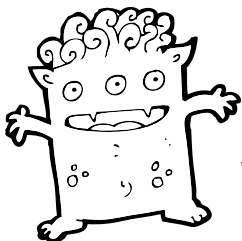


Water, water everyWhere

Use green to color the land and blue to color the water.

Is there more land or more water?

70% of the Earth's surface is covered with water,
but only 1% can be used by people.

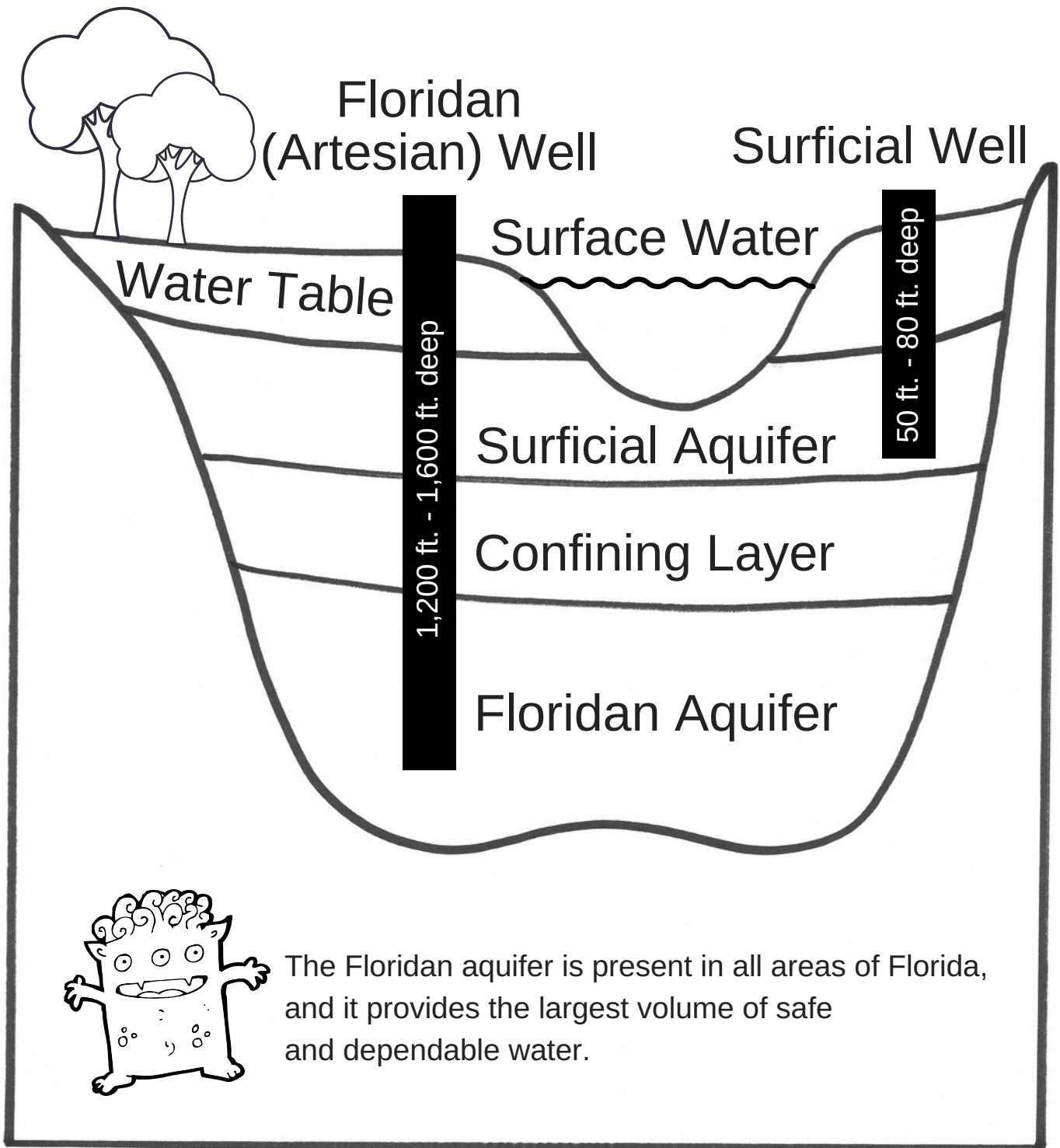


We can't use the salty ocean water, we need freshwater, which can be found in aquifers, ponds, lakes, rivers, streams, and springs.

The water below

Our freshwater comes from an "aquifer," which is an underground layer of rock or sand that can hold and absorb water.

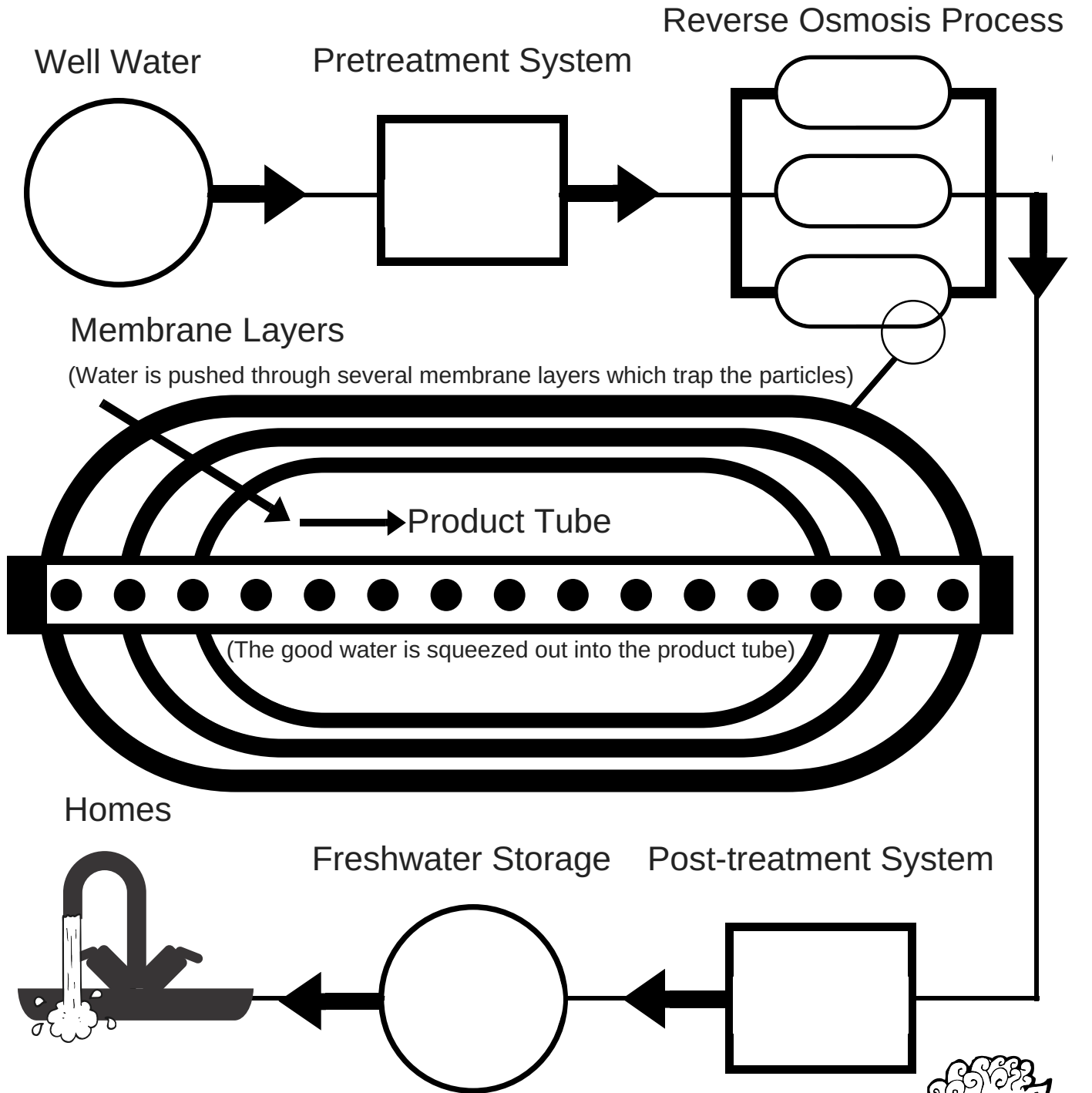
Our water treatment plants use reverse osmosis to clean and treat the water before we send it to your home. We draw from two sources: the surficial aquifer and the Floridan aquifer.



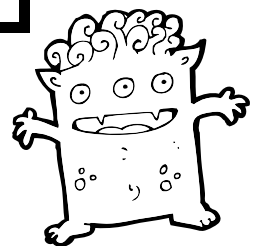
The Floridan aquifer is present in all areas of Florida, and it provides the largest volume of safe and dependable water.

Reverse Osmosis

Our water is treated through reverse osmosis. This process uses pressure to push well water through membranes to remove the bad particles. The treated water is then ready to use and sent to your home.



Our 2 plants combined have the capacity to produce more than 41 million gallons of water per day.

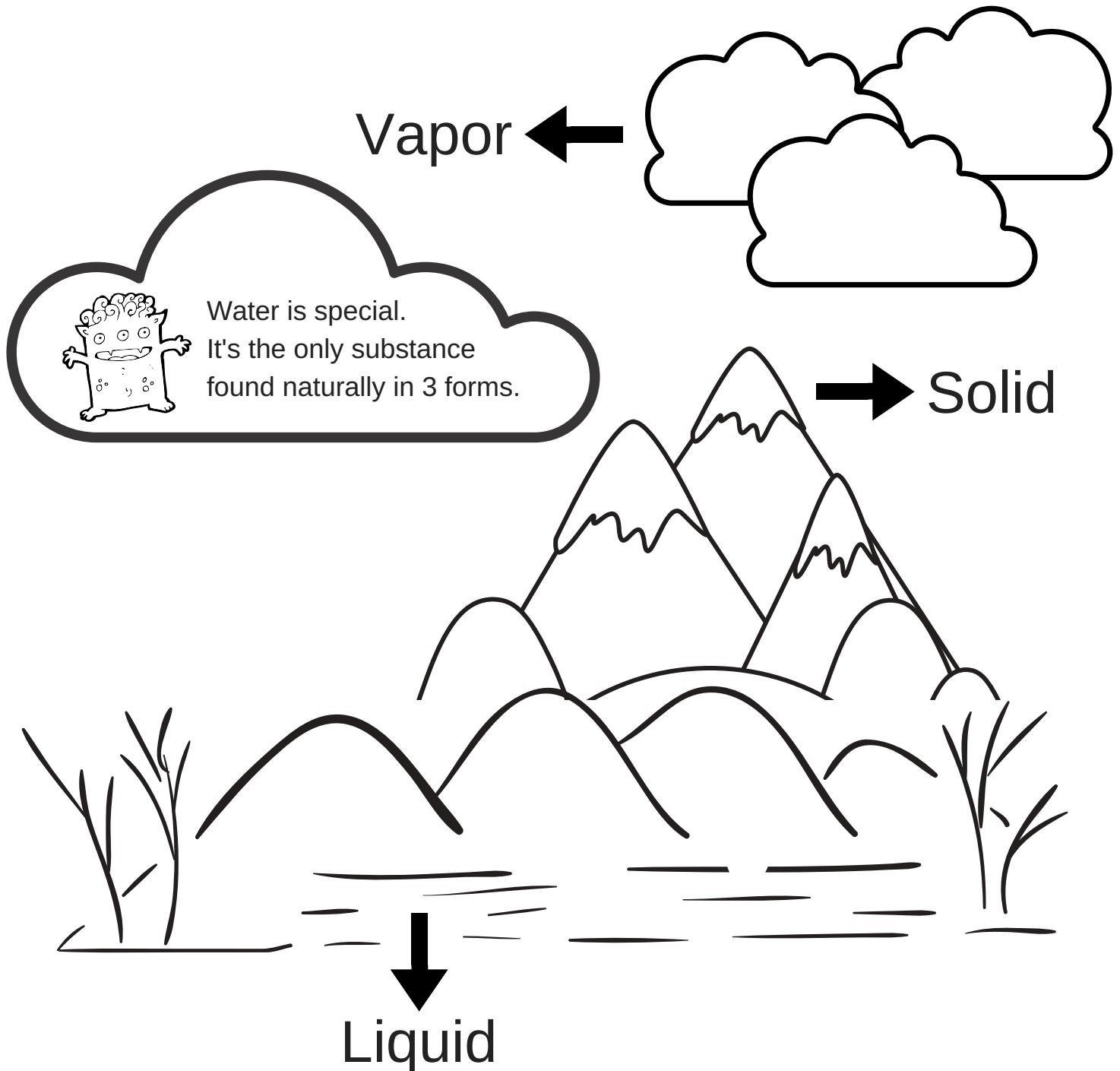


Types of Water

The **solid** form of water—ice, is found at the poles of the earth, snow covered mountains, and glaciers.

The **liquid** form of water is present in rivers, lakes, and oceans.

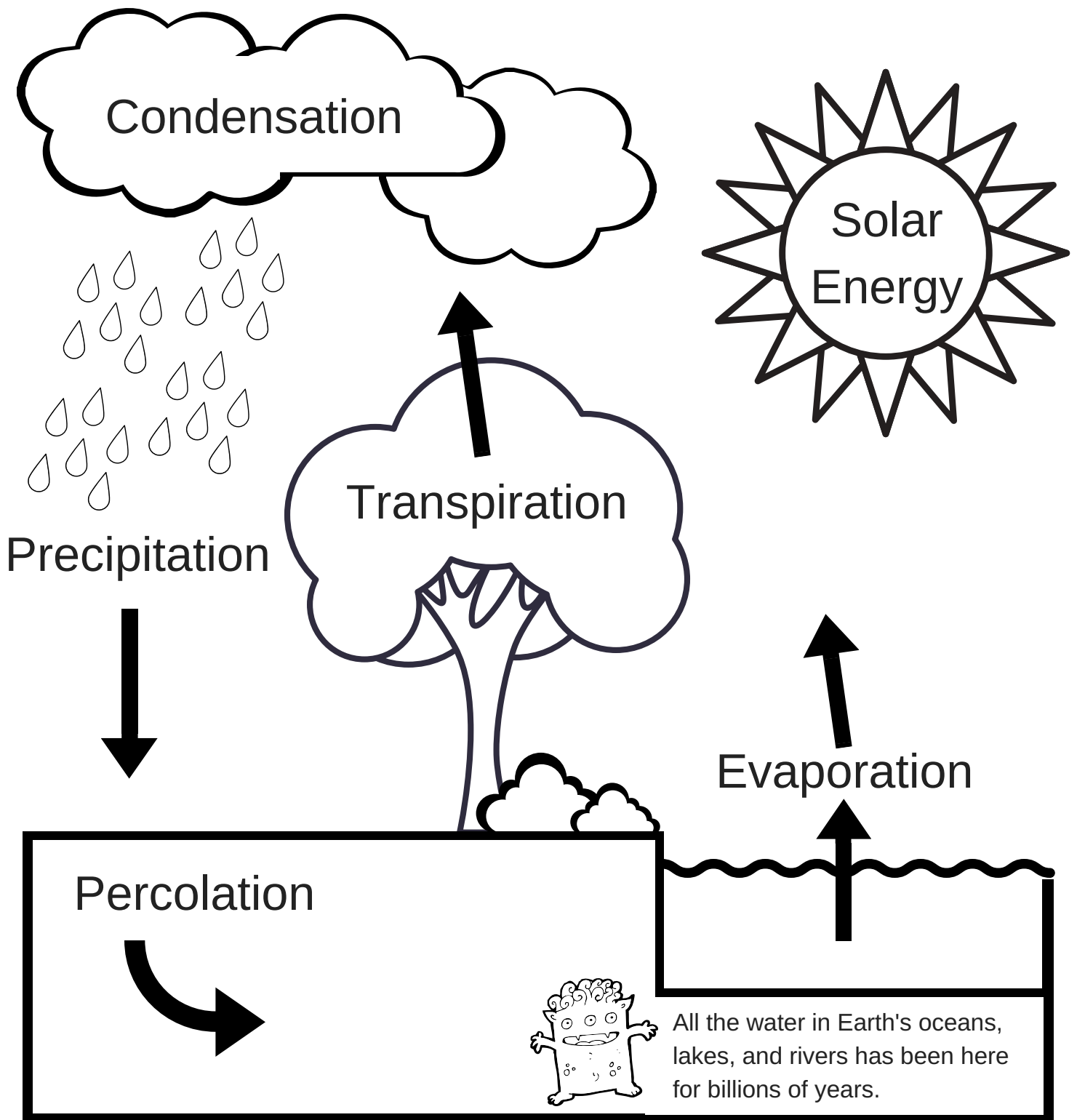
The gaseous form of water—water **vapor**, is all around us, sometimes visible as clouds or steam.



The Water Cycle

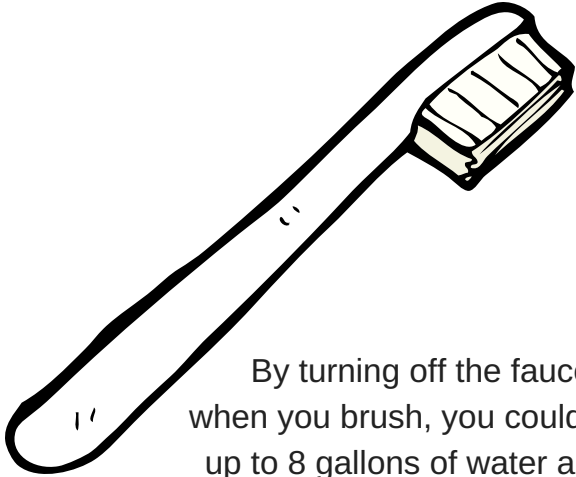
All of the Earth's water is part of an endless "water cycle."

Through this cycle, nature cleans and moves water from the ocean to the air, then to the land and back again.



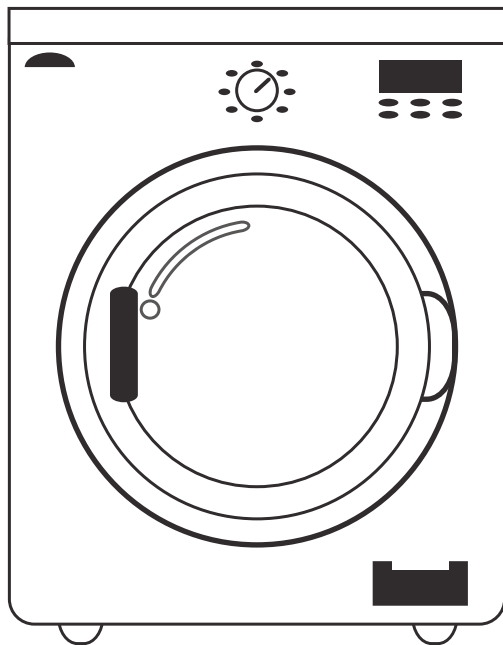
Water Conservation

By making a few simple changes at home to save water, you can become a Water Saver Super Hero!

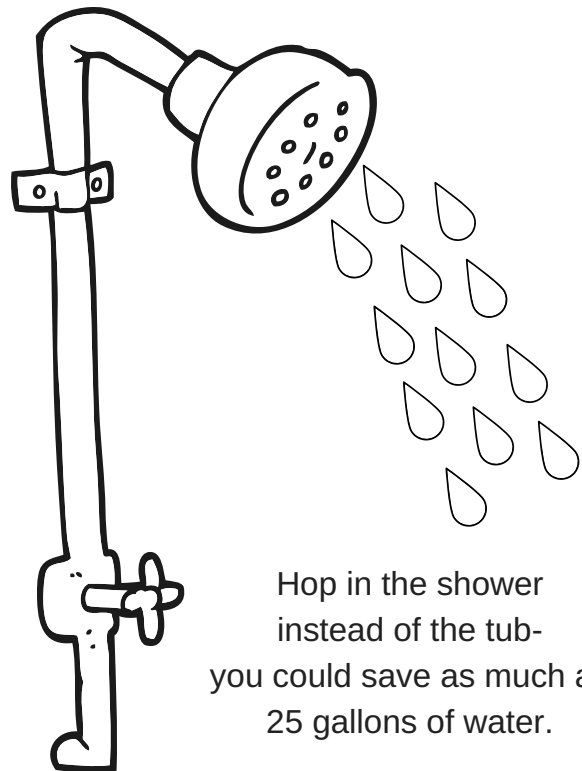


By turning off the faucet when you brush, you could save up to 8 gallons of water a day.

Don't waste a flush on trash-only flush toilet paper and your number 1's and 2's.

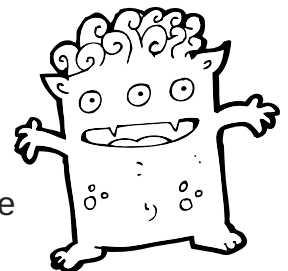


Only run the washing machine or dishwasher when there's a full load to get the most out of the water you use.



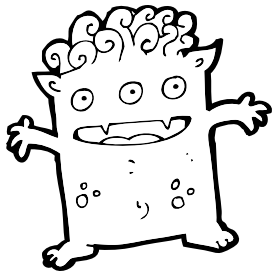
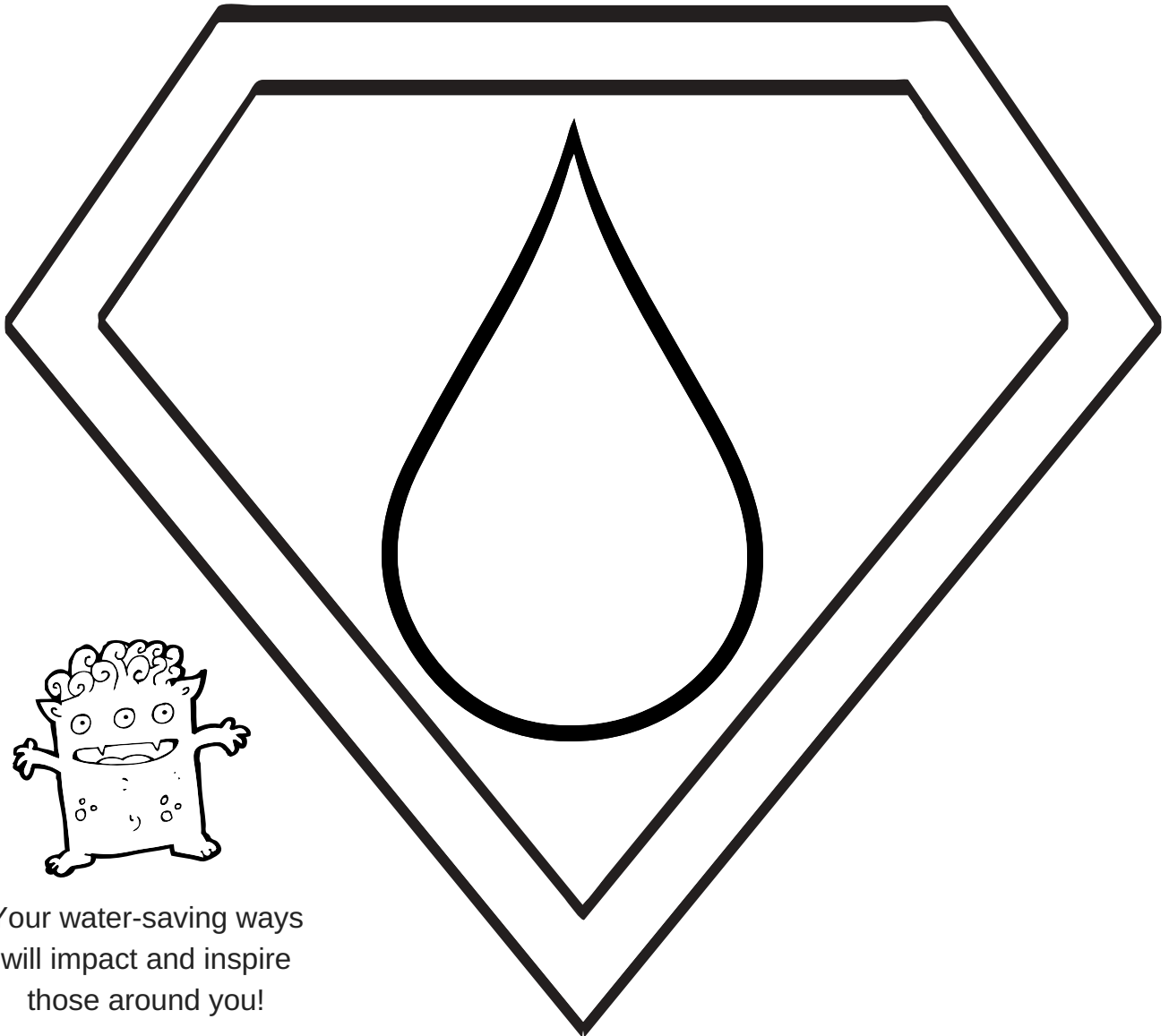
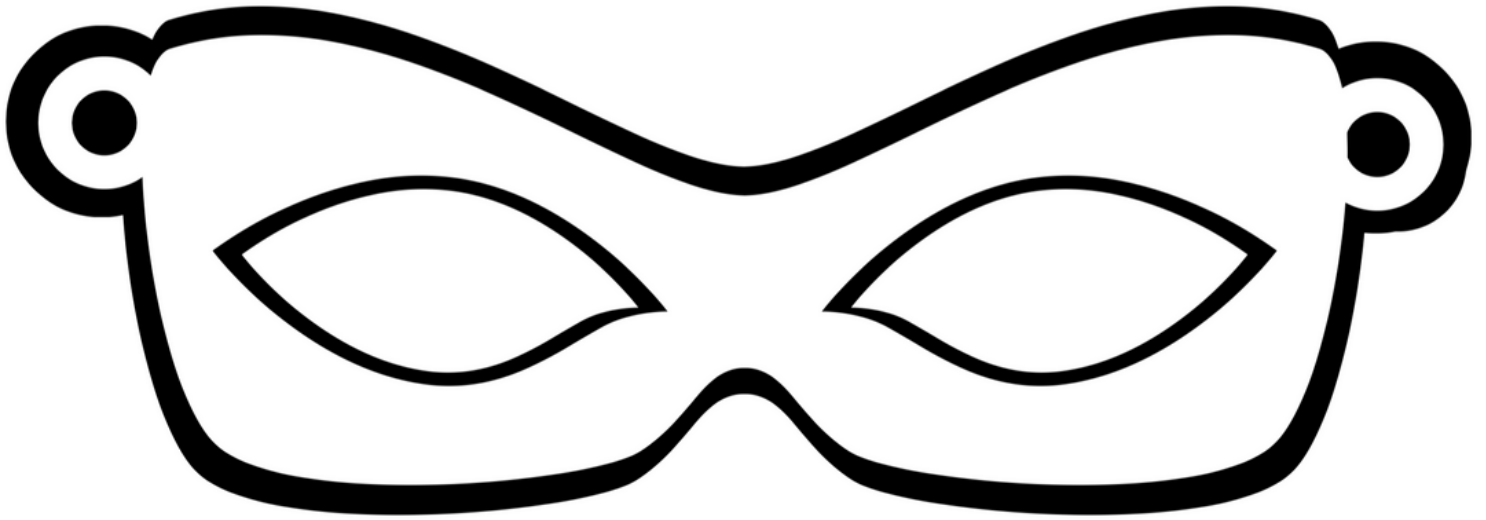
Hop in the shower instead of the tub- you could save as much as 25 gallons of water.

To conserve means to save and avoid waste.



Water Savers Unite!

By using less water, you've become a Water Saver Super Hero!
Color your mask and crest to show off your water-saving super powers.



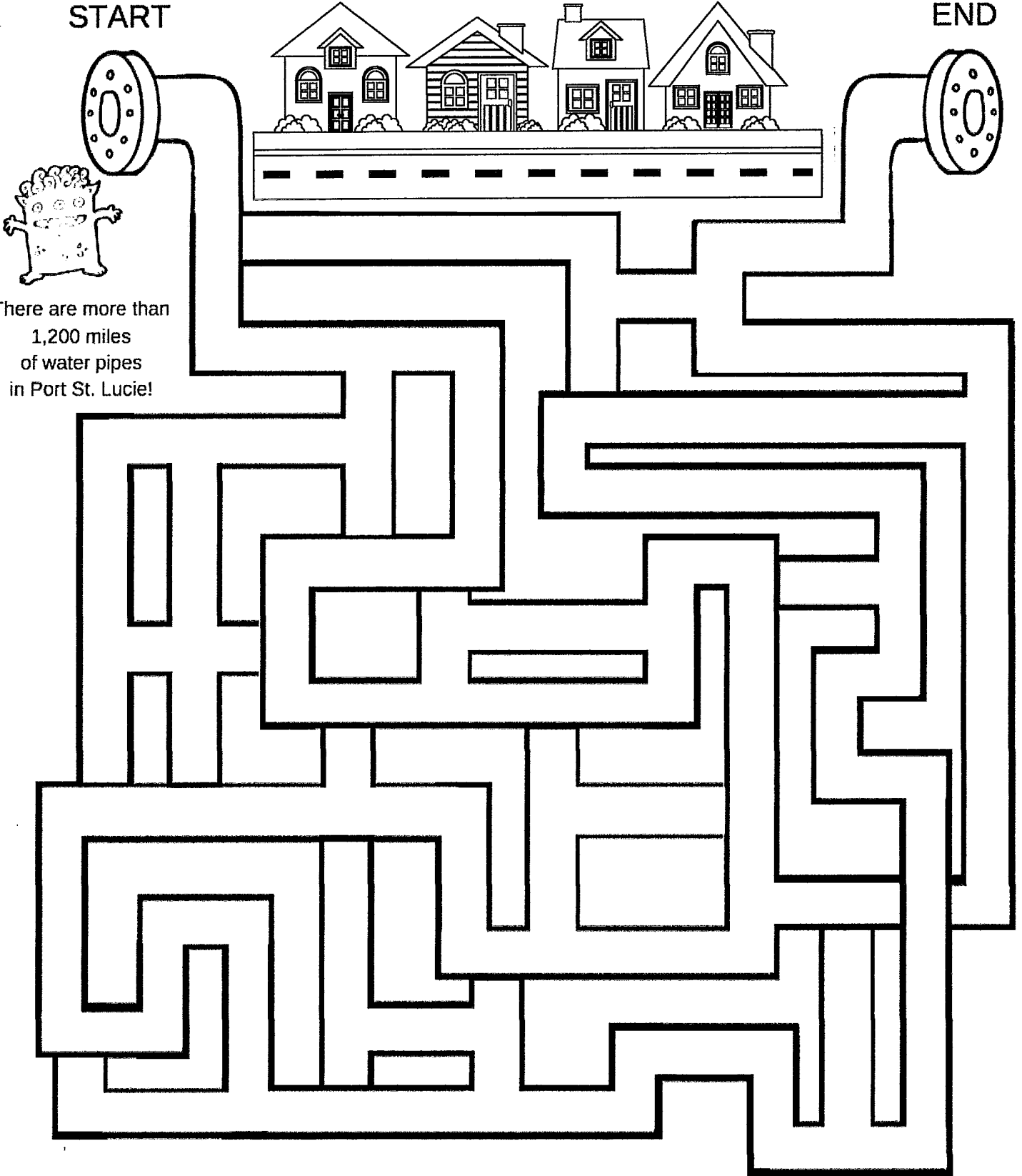
Your water-saving ways
will impact and inspire
those around you!

Water Pipe Maze

Make the water flow through the maze of pipes without hitting a clog in the system.

START

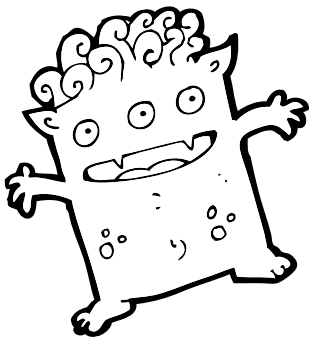
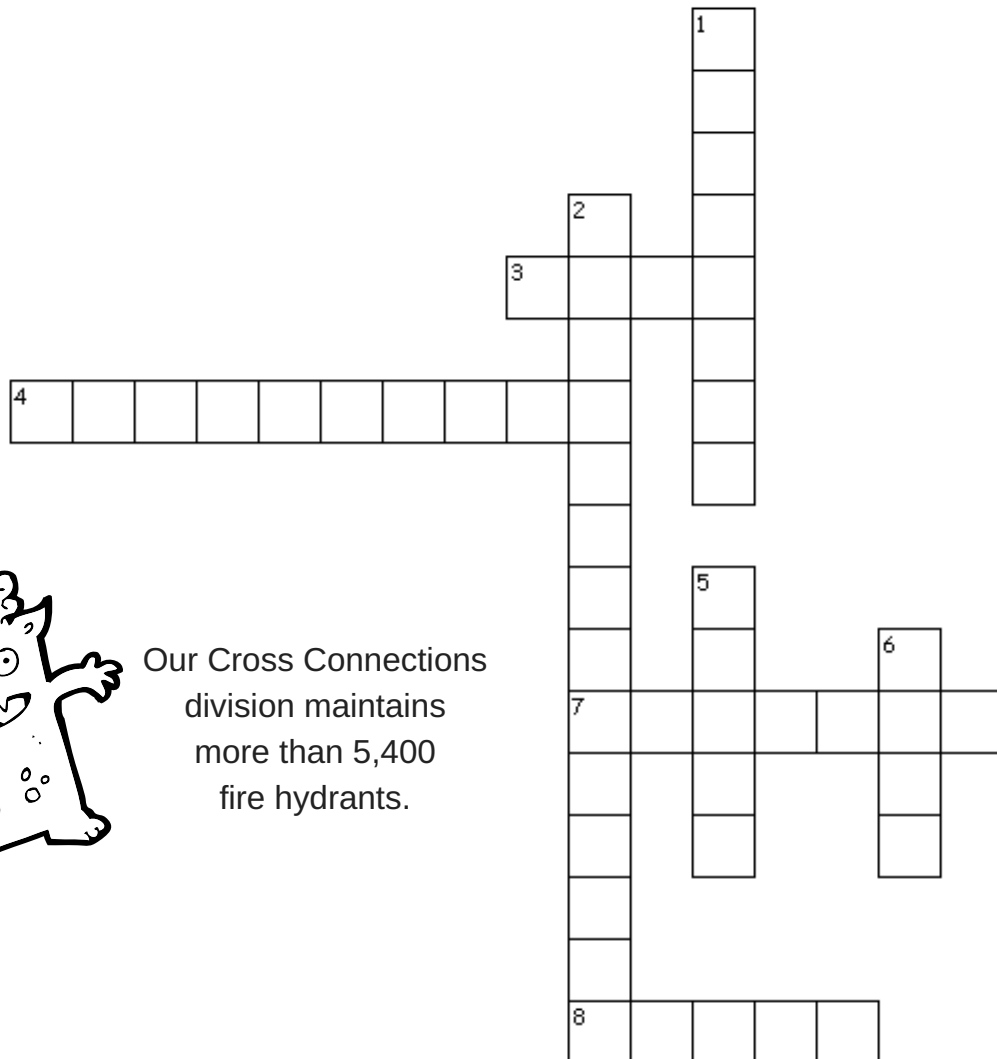
END



There are more than
1,200 miles
of water pipes
in Port St. Lucie!

Crossword Connections

Use the clues to fill in and connect the Utility Systems words.



Our Cross Connections division maintains more than 5,400 fire hydrants.

ACROSS

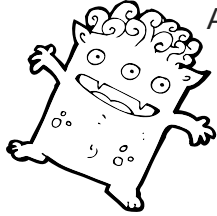
3. A tube used to move water
4. Water that has been used in washing or flushing
7. A layer of rock or sand that can absorb and hold water
8. Acronym for Supervisory Control And Data Acquisition

DOWN

1. To save and avoid waste
2. Friendly bacteria who eat things in wastewater
5. Reclaimed water
6. A deep hole in the ground from which you can get water

Manhole Cover Word Search

Inspect the manhole cover closely to find the words from the list.
Just like our pipes, the words move in different directions.



A "manhole" is a small covered hole in the street which allows us to enter an opening leading to a sewer pipe.

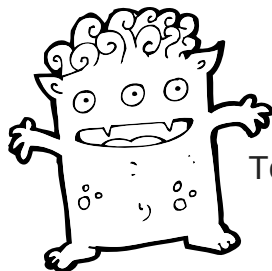


- | | | |
|-------------|---------------|------------|
| AQUIFER | LAB | SLUDGE |
| CONNECTION | MANHOLE | SYSTEMS |
| CONSERVE | MAP | TAP |
| CUSTOMER | MICROORGANISM | TREATMENT |
| ENGINEERING | PIPE | UTILITY |
| FAUCET | PUMP | WAREHOUSE |
| FLUSH | RECHARGE | WASTEWATER |
| GROUNDWATER | REUSE | WATER |
| HYDRANT | SCADA | WELL |

Don't Flush that!

A toilet is not a trashcan, so don't flush things that can be thrown away instead. Trash could cause clogs or harm to the system.

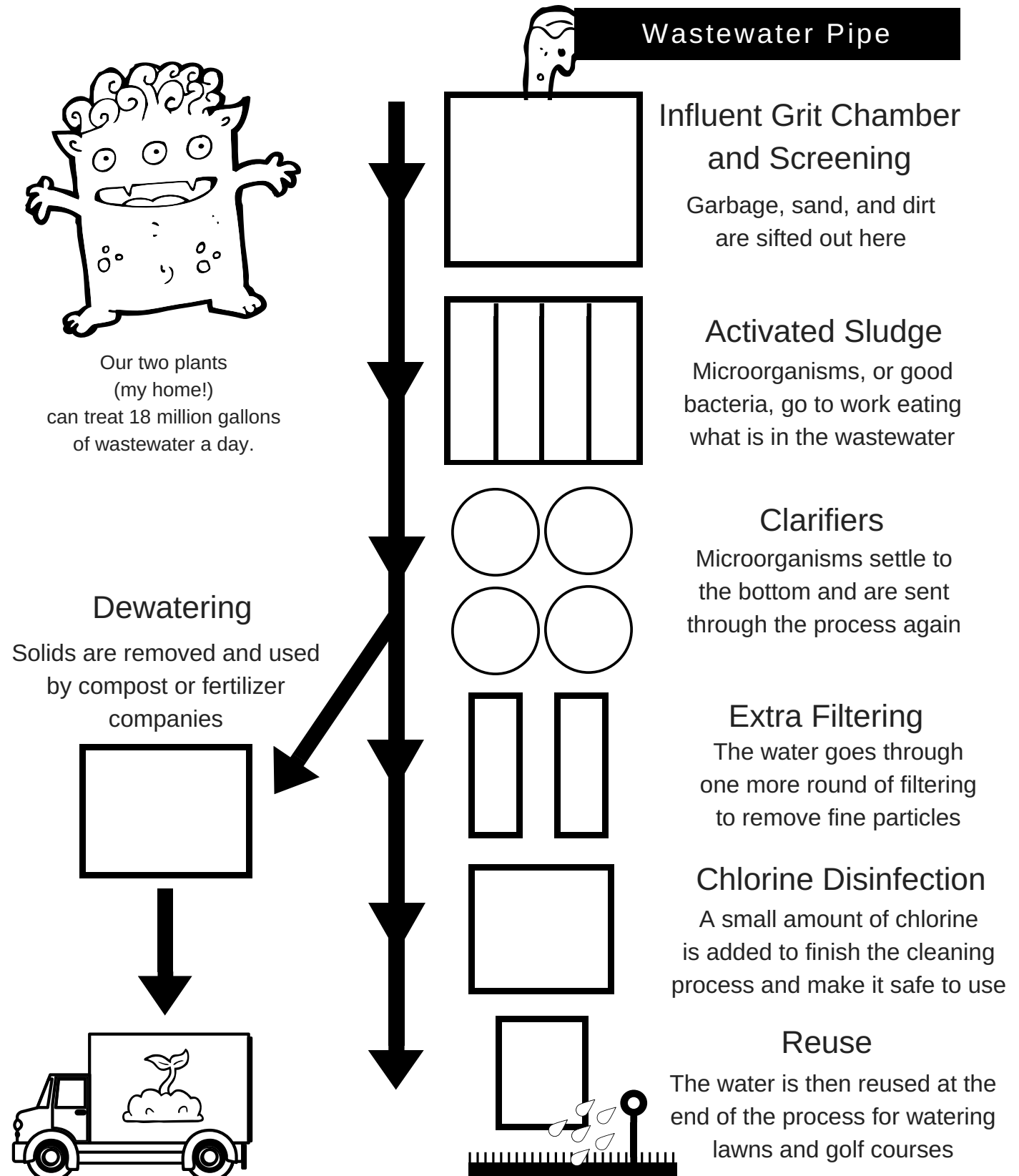
Draw a line from the items that should be thrown away to the trashcan, not flushed down the toilet.



Toilet paper and your number 1's and 2's are the only things that should be flushed down the toilet.

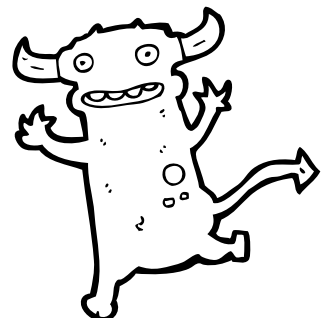
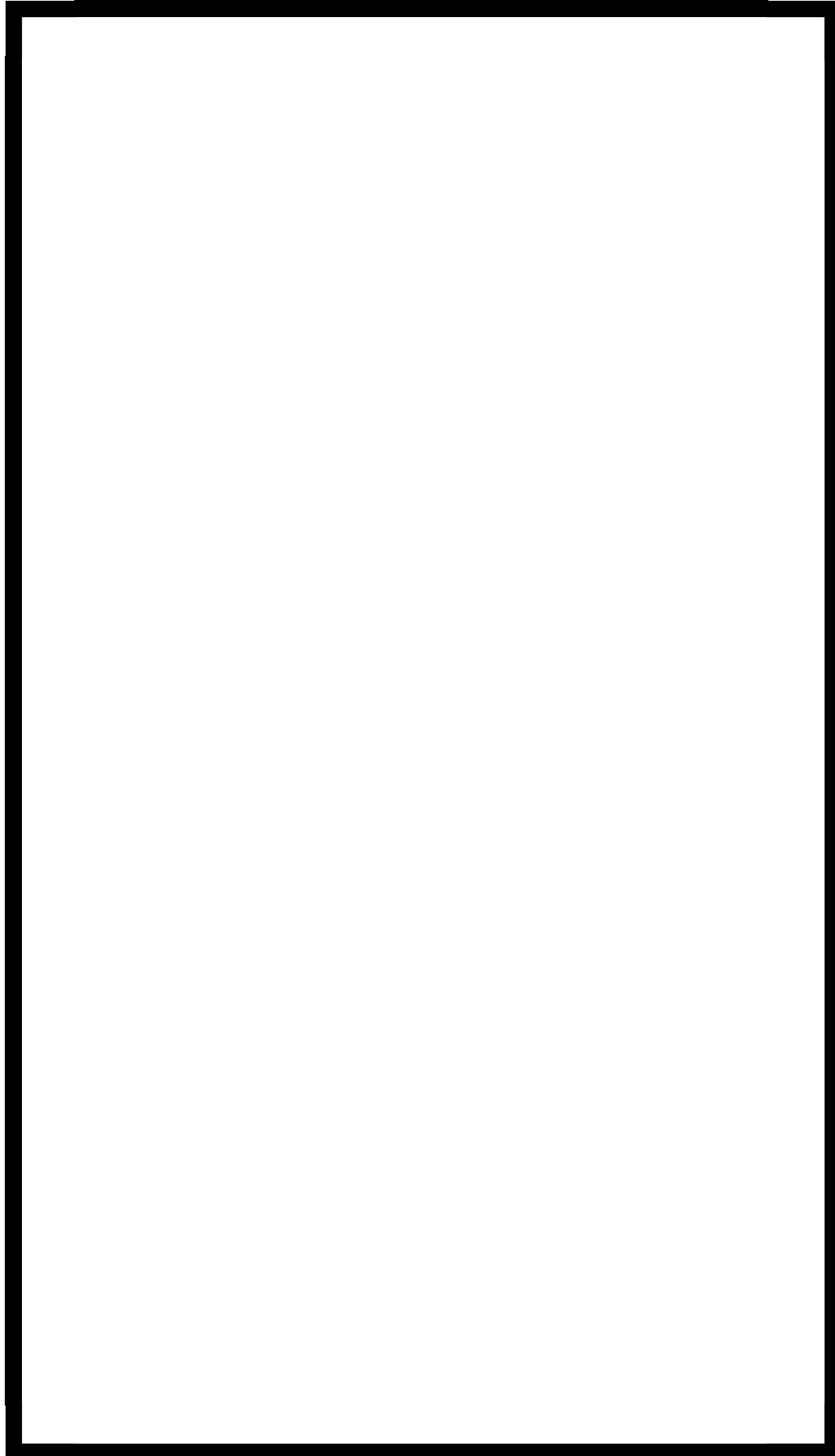
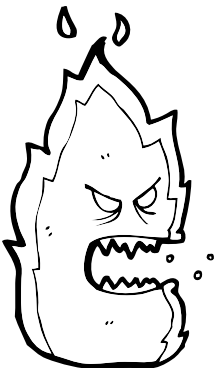
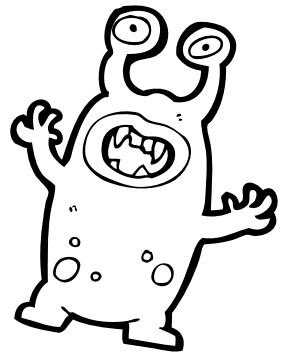
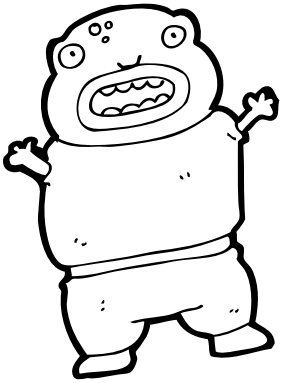
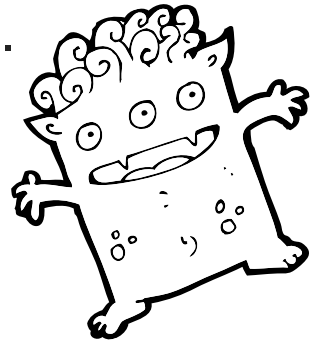
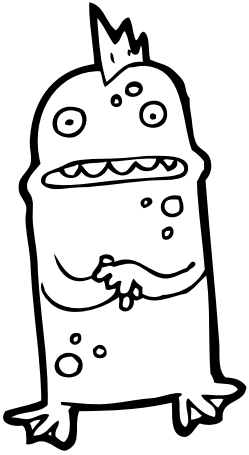
Cleaning wastewater

Wastewater from your home goes to the Wastewater Treatment Facility. It goes through several steps to be cleaned so it can be used again.



Create Your own Microorganism

Draw your version of a friendly bacteria, like Mikey, who feasts on wastewater.



**Connected to the Community
since 1994**



Utility Systems Customer Service

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