



**Saving Water
in Progress**

World of Water Calendar 2026-2027

October 2026

Shower Better Month
Shorter Showers Save Water

November 2026

H₂O 4 Ever Run/Walk at Sunwest Park in Hudson
November 7

February 2027

Sprinkler Spruce Up
Efficient Irrigation Saves Water

March 2027

Fix A Leak Week
March 15-21

April 2027

Water Conservation Month
Reduce Use to Save Water
Water Wise Award Nominations
Open through July 31

May 2027

Drinking Water Week
May 2-8

Water Reuse Week
May 11-17

Water Poster Contest Winners Announced May 15
Get info at WaterContest.org

June 2027

Water Quality Report Publishes
PascoCountyUtilities.com

Cover Photo: AI-generated Drippy invites everyone in Pasco County to save water.

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Inside the World of Water

Welcome to the World of Water, where our goal is to learn about our valuable resource — water — and discover ways to protect and save it. Water is a finite resource. As you explore, you'll learn about how to use water more efficiently and how to share your water knowledge with family and friends.

Banking Water for Another Day

One way to understand how our water supply is managed is to think of it like a bank account. Our region only has a certain amount of water we can use, just like a bank has limits on how much money you can take out each day.

We make deposits into our water “bank” account when it rains. We also make deposits when we save water. Every time we use water carefully — like turning off the faucet while brushing our teeth — we are adding “savings” to our water account. The water we don’t use, because we are being careful, goes right back into our water “bank” account.

When we use water for drinking, showering, watering landscapes or filling a pool, those are withdrawals from our water bank account. We take water out every single day, so it’s important to use it wisely.

The Tampa Bay region is growing fast. That’s why saving water is more important than ever. Even small choices — like shorter showers or fixing leaky faucets — can help keep our water bank account strong. Everyone has a part to play in protecting our water supply. What are some ways YOU can make a water “bank” account deposit today?



Water Bank Account Daily Balance Sheet Account Holder: Drippy

Water Bank Balance Sheet		
Water Activity	+ and -	Balance
Turn off water brushing teeth	+ 2 gallons	2 gallons
Take a shorter shower	+11 gallons	13 gallons
Left outdoor hose running	- 4 gallons	9 gallons
Reused water for plants	+ 6 gallons	15 gallons
Filled bathtub full	- 13 gallons	2 gallons

Even though Drippy forgot and left the hose running, he saved enough water during other activities to meet his water needs and ‘bank’ some.

GOING BEYOND THE TEXT Water, a precious resource

Did you know that less than 1 percent of all the water on Earth can be used by people? Think about the importance of water and how water affects all Earth’s inhabitants, including people, animals, insects and plants. With your classmates, make a list of all the ways you can think of that water is used.

Next, working in small groups, look for images in the Tampa Bay Times and Beacon newspapers showing water being used. Using the print or e-Editions of the newspapers, be sure to examine all sections of the Times, including advertisements and cartoons. Select several of the photos to create a poster. On the poster, indicate how water is represented in the images.

Finally, write a summary of what you have discovered about water use in your community and whether water is being used responsibly or not.

Florida Standards: SC.35.N.1.1; SC.35.N.1.2; SC.35.N.1.3; SC.35.N.1.4; SC.35.N.3.1; SC.68.N.1.1; SC.7.E.6.6; ELA.38.EE.1.1; ELA.38.EE.2.1; ELA.38.EE.3.1; ELA.38.EE.4.1; ELA.38.EE.5.1; ELA.38.EE.6.1; ELA.38.C.1.3; ELA.38.C.1.4; ELA.38.C.1.5; ELA.38.C.2.1; ELA.38.C.3.1; ELA.38.C.4.1; ELA.38.C.5.1; ELA.38.F.1.3; ELA.38.F.1.4; ELA.38.R.2.2; ELA.38.R.2.3; ELA.38.R.2.4; ELA.38.V.1.1; ELA.38.V.1.3; ELA.38.F.2.1; ELA.38.F.2.2; ELA.38.F.2.3; ELA.38.F.2.4

Looking Ahead to the Water Needs for 2045

The Tampa Bay region, including Pasco County, can have enough water in the future, but only if we use our water efficiently. Because we are growing with more homes, schools and businesses, our need for water also is growing.

Tampa Bay Water, Pasco County Utilities’ regional water provider, will meet this demand using a diverse supply mix of river water, sea water and groundwater. The Tampa Bay region is projected to need an addition 25 million gallons per day (mgd) by 2045.

In addition to increasing needs for water, variations in the weather make managing our water supplies

more challenging every year. Some years, like this past year, have very little rain, which results in extreme dry periods called droughts. Some years we have lots of rain. That can result in flooding. Experts say that we are likely to see extreme dry periods happen more often in the future.

Here are three things to help make a difference at home:

1. Turn off the faucet while brushing
2. Take shorter showers
3. Collect shower water to reuse for plants



It Rains, but it Doesn't Always Pour



In the Tampa Bay area, we receive an average of 52 inches of rainfall every year. But we don't receive that rain in equal amounts across the year. Our rainfall is seasonal.

Our rainy season is a four-month period from June through September. Nearly 60 percent of our annual rainfall — about 7.5 inches a month — is received during the rainy season. As a result, the rainy season can result in rising water levels in wells, lakes, rivers and springs.

Our dry season runs October through May. During the dry season, our average rainfall is about 3 inches per month. Water levels may decline in wells, lakes, rivers and springs during the dry season.

When the expected levels of annual rainfall do not arrive, these dry season conditions can increase, resulting in the need for additional water conservation measures to help us make sure we have adequate drinking water until the next rainy season.

World of Water Word Search

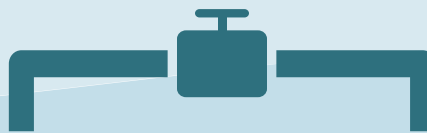


Aquifer Conservation Irrigation Leaks Pipes
Reclaimed Utilities Wastewater Water Watershed

See the answers on page 15

GOING BEYOND THE TEXT

It's all connected



It takes thousands of miles of water mains and pipes to deliver water to Pasco County homes, offices, schools and recreational facilities. Before that water gets to those pipes, it is constantly moving. You can learn more about this intricate journey at: noaa.gov/education/resourcecollections/freshwater/water-cycle.

Just like Pasco County's water system, everything in the natural world is connected, from the rivers and lakes to agricultural lands to school water fountains and your kitchen sink. Safe drinking water may start with a raindrop, but its journey to the tap is extensive. As inhabitants of Earth, it is our job to not only realize that, but also to try to protect the parts that contribute to the whole.

Florida Standards: SC.5.E.7.2; SC.4.E.6.3; SC.38.N.1.1; SC.7.E.6.6; SC.7.L.17.3; SC.8.N.4.1; ELA.38.EE.1.1; ELA.38.EE.2.1; ELA.38.EE.3.1; ELA.38.EE.4.1; ELA.38.EE.5.1; ELA.38.EE.6.1; ELA.38.C.1.3; ELA.38.C.1.4; ELA.38.C.1.5; ELA.38.C.2.1; ELA.38.C.3.1; ELA.38.C.4.1; ELA.38.C.5.1; ELA.38.F.1.3; ELA.38.F.1.4; ELA.38.R.2.2; ELA.38.R.2.3; ELA.38.R.2.4; ELA.38.V.1.1; ELA.38.V.1.3; ELA.38.F.2.1; ELA.38.F.2.2; ELA.38.F.2.3; ELA.38.F.2.4

An ecosystem is a biological community of interacting organisms and their physical environment. In other words, an ecosystem is a community of living and non-living things that work together, including your classroom, school, bedroom, home, county, state and country. Think about all the different parts of your ecosystems and how they interact. Look for articles and photos in the Tampa Bay Times and Beacon newspapers about your community ecosystem. Make a list of all the parts of your ecosystem. Next, think about the ways these parts interconnect and write a blog post about what you have learned.

How to Read Your Water Meter

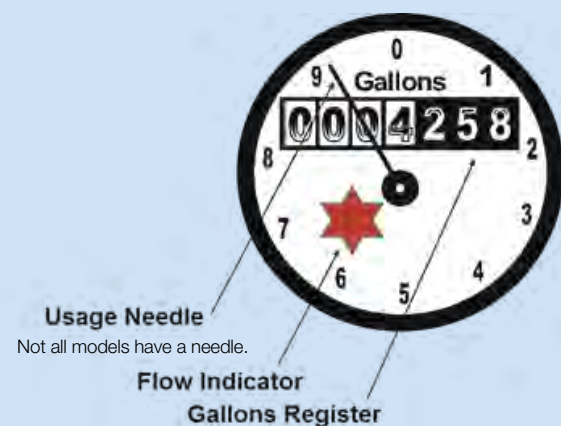
A water meter register sits on top of a water meter to display water use information. Gears located inside the water meter's chamber are turned when water flows through the meter. The turning gears cause the dials on the register to advance to account for water use.

Pasco County Utilities measures water by the gallon and bills for water in 1,000 gallon units. In the illustration, the register is showing 4,258 gallons of water have moved through the meter. For billing, the number is rounded down to 4,000 gallons. The remaining 258 gallons will stay on the meter for billing when enough water is used to move the read to 5,000 or more gallons.

Water used since the last time a meter is read is the amount of water billed. For billing on this register, 4,258 will be subtracted from the next billing read. Once the difference between the two reads is calculated, that number will be rounded down to thousand gallons only for billing.

The last time this meter was read, **4,258 gallons** were showing on the register. Thirty days later, the meter read is **10,854**. How much water will be billed to the customer?

See calculations below.



SOLUTION:

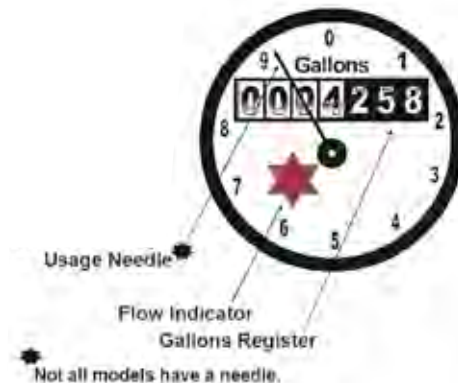
New Read: 10,854

Prior Read: 4,258

Difference: 6,596

Water billed to the customer =
6,000 gallons

Gallons are rounded down for billing.



Miles of Mains Bring Water to Your Faucets

We use water every day — usually without thinking about how that drinking water is delivered to our water faucets. In reality, it takes miles of pipes to make it happen!

About half of those mains deliver potable water, or drinking water, to homes and businesses for daily use. Other mains send used water back from homes and businesses to clean it before returning it to nature or piping the cleaned water, or reclaimed water, back to homes and businesses to be used for irrigation.

Pasco County Utilities maintains more than
4,650 miles of mains within its service area. If you line up all the mains, it would reach from Pasco County all the way to the Grand Canyon and back.

The average household served by Pasco County Utilities uses
6,000 gallons of water each month.

Check the table below to learn how much water Pasco County Utilities treats daily and how many people rely on their services, as of July 31, 2026.

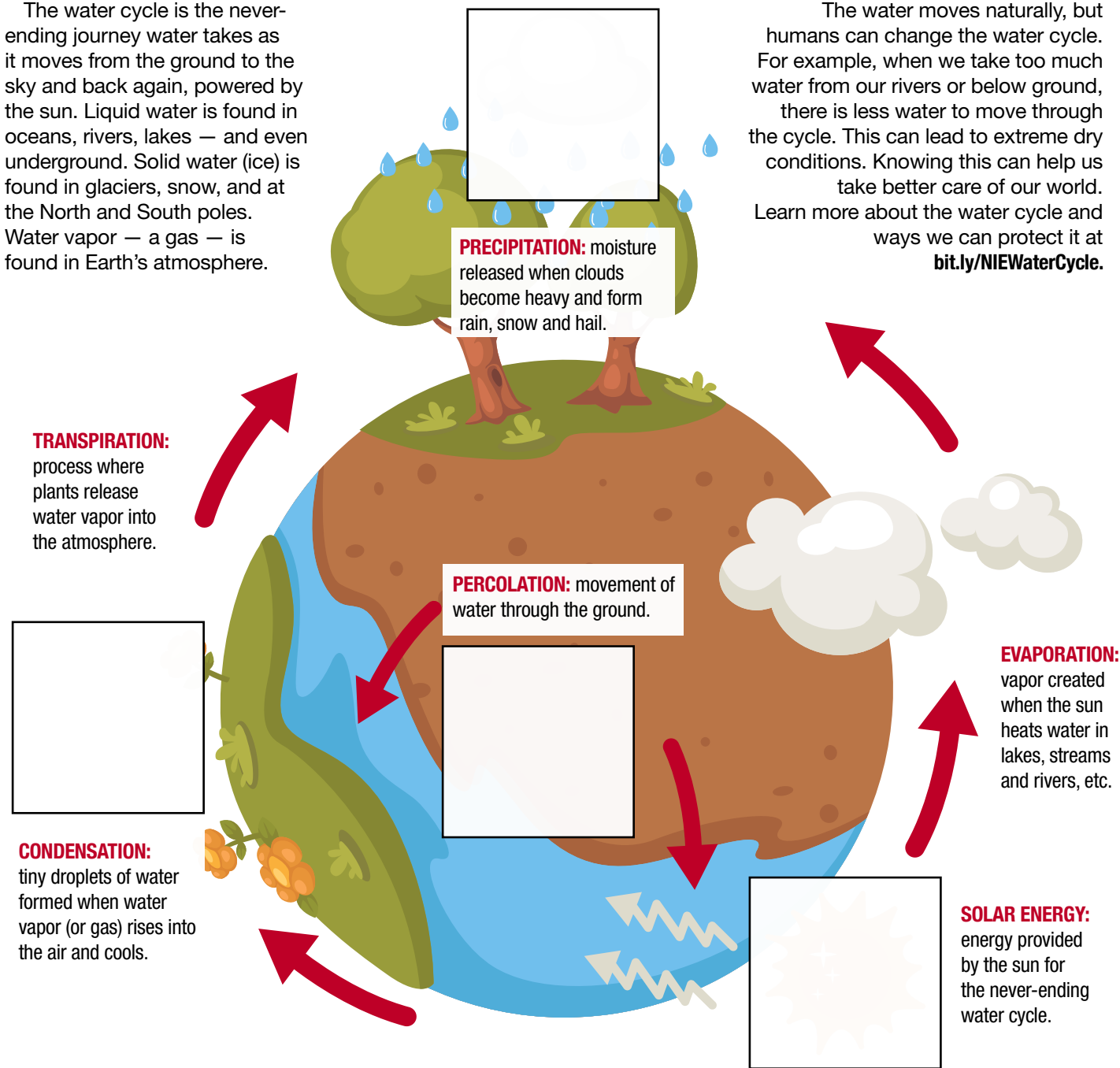
Utility Service	Potable Water	Wastewater	Reclaimed Water
Total Metered Connections	157,625	142,637	43,504
Miles of Mains and Pipes	2,138	1,857	759
Water Treated Daily (mgd)	40	36	31

Follow @PascoWater on X, formerly known as Twitter, for water and water-related information.

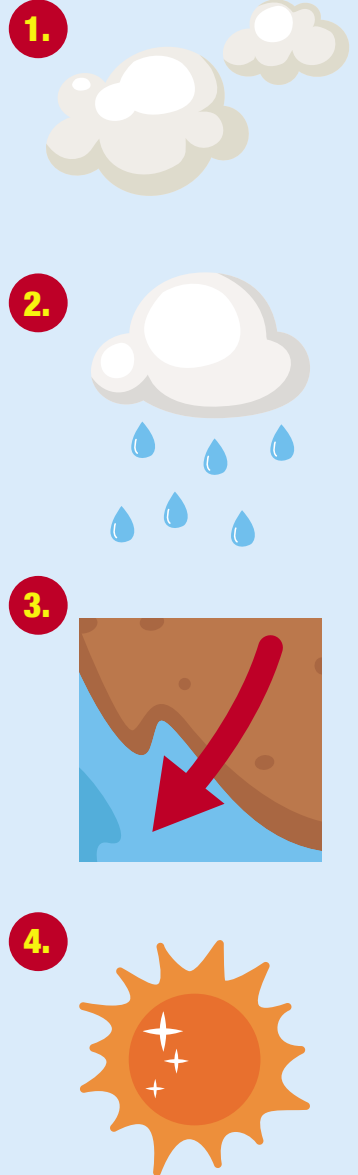
Water Cycle is the Core of Water World

The water cycle is the never-ending journey water takes as it moves from the ground to the sky and back again, powered by the sun. Liquid water is found in oceans, rivers, lakes — and even underground. Solid water (ice) is found in glaciers, snow, and at the North and South poles. Water vapor — a gas — is found in Earth's atmosphere.

The water moves naturally, but humans can change the water cycle. For example, when we take too much water from our rivers or below ground, there is less water to move through the cycle. This can lead to extreme dry conditions. Knowing this can help us take better care of our world. Learn more about the water cycle and ways we can protect it at bit.ly/NIEWaterCycle.



Read the descriptions of the parts of the water cycle, then decide which of the graphics below fit into the boxes in the water cycle illustration.



Share Your Thoughts About this NIE Issue.

Thanks for reading this special Newspaper in Education issue about the World of Water. We enjoyed sharing where water comes from, how we use it, and how you can help save it. We'd like to know what you think. Your ideas will help make future issues even better. Please scan the QR code or log on to bit.ly/PascoWorldofWater to answer 5 short questions.

SCAN ME





The Pros Who Keep Water Flowing to You

It takes lots of people doing many different jobs to provide drinking water. Many teams work together to make sure clean drinking water can reach every home, school, business and park in the community. Each group has an important job that requires teamwork, problem-solving and helping people.

Here is a sample of some of the types of work done daily to provide clean drinking water to the nearly 200,000 households and businesses that rely on Pasco County Utilities.

Operations and maintenance

The operations and maintenance crews start their days by checking the giant pumps that clean and move water. They walk through the water production plant making sure pumps and pipes are working. This crew also repairs breaks, tracks and fixes leaks, and keeps our fire hydrants in good working order, ready in case they are needed.

Water utility work never stops. Water utility team members work 24/7 to keep clean water flowing to your house and your community.

The laboratory

In the lab, scientists test water samples to make sure the water produced is clean and healthy before it goes into the pipes. They use beakers, droppers, and special machines to check for things we can't see with our eyes. Their work helps protect everyone who drinks the water.

Engineering

Engineers spend their day planning and designing the systems that carry water in Pasco County. They look at maps, study data, and figure out how to build new pipes, tanks, and equipment. When something needs to be improved, they come up with smart solutions to make the system stronger.

Call center and billing

The call center team helps customers who have questions about their water service or their bill. They help people start or stop service and report problems like leaks. And a billing team checks data to ensure the bills sent to customers are accurate.

Field services

The field services team gathers meter reading for more than 200,000 meters monthly. This same group also completes a variety of other work related to ensuring that the water meters are working properly to help ensure that utility customers billing is timely and accurate.

Specialists

Some specialists at the utility spend their day looking at numbers, graphs and charts to understand how much water people use, where people may be using too much water, where leaks might be happening, and other data to see where improvements can be made. Others are working to ensure that county code requirements are being met or to develop materials to help everyone save water.

Utility administrators

Administrators help the utility run smoothly. They plan budgets, organize projects, and make sure every team has what they need to do their jobs. They also help set goals for the future.

GOING BEYOND THE TEXT

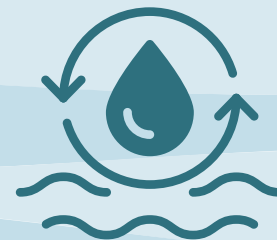
A day in the life of a water drop

The world's water moves among lakes, rivers, oceans, the atmosphere and the land in an ongoing cycle called the water cycle. The sun rises, and begins to heat the oceans, lakes and rivers. This heat provides energy for plants to give off water vapor through a process known as transpiration.

That vapor rises into the atmosphere to form clouds, which can be moved by the wind over long distances. This eventually results in rain or snow. That precipitation infiltrates into the ground or runs off the land to return to the ocean.

Visit gpm.nasa.gov/education/videos/water-cycle-animation to watch an animation of Earth's water cycle. As a class, list the steps of the water cycle using this video and the graphic of the water cycle on page 7. On a piece of paper, write down the steps of the water cycle. Describe each scientific term in the process.

Next, using the cartoons in the Tampa Bay Times as models, create a cartoon strip depicting each step in the water cycle. This can be created on paper or digitally. Share your cartoon with your class.



Standards: SSC.38.N.1.1; SC.34.N.1.2; SC.3.N.1.6; SC.3.N.3.2; SC.3.P.9.1; SC.4.P.8.2; SC.5.E.7.2; SC.6.E.7.2; ELA.38.EE.1.1; ELA.38.EE.2.1; ELA.38.EE.3.1; ELA.38.EE.4.1; ELA.38.EE.5.1; ELA.38.EE.6.1; ELA.38.C.1.3; ELA.38.C.1.4; ELA.38.C.1.5; ELA.38.C.2.1; ELA.38.C.3.1; ELA.38.C.4.1; ELA.38.C.5.1; ELA.38.F.1.3; ELA.38.F.1.4; ELA.38.R.2.2; ELA.38.R.2.3; ELA.38.R.2.4; ELA.38.V.1.1; ELA.38.V.1.3; ELA.38.F.2.1; ELA.38.F.2.2; ELA.38.F.2.3; ELA.38.F.2.4

World of Water Art Gallery

Students in Pasco County have been using art to teach their families, friends, and neighbors about saving water since 2010. They do this through the Water Poster Contest. This contest is part of a STEAM program, which includes science, technology, engineering, art, and math. Pasco County Utilities and the Florida Governmental Utility Authority (FGUA) work together to run the program, with help from the Pasco County School District.

More than 20,000 students have learned why water is important and how to protect it by using the lessons and materials provided. Then they create artwork to share what they learned.

In 2026, the contest received 1,003 posters from 12 schools. The theme for the 2026 contest was the same as the theme of this publication: World of Water

Displayed here are the 1st place winners for grades K–5. To see the 1st, 2nd, and 3rd place winners in grades K–5, along with sponsor-selected Honorable Mentions, go to WaterContest.org.



Aadrika Subramanian
Fifth Grade, Wesley



Harper Matthews
Kindergarten, Athenian Academy



Hunter Hipps
First Grade, Sanders Memorial
Elementary



Patricia Grainger
Third Grade, Ode



Audhi
 y Chapel Elementary



1ST PLACE



ce Wells
 ssa Elementary



1ST PLACE



Emma Chirinos
 Second Grade, Odessa Elementary



1ST PLACE



Ezaan Rabbi
 Fourth Grade, Odessa Elementary



1ST PLACE



Honorable Mention
Gianna Weyandt
 Centennial Elementary



Honorable Mention
Sharanya Gangwar
 Odessa Elementary

Registration for the 18th Annual Water Poster Contest is open now. Find details at WaterContest.org.

Cleaned-Up Water Gets Recycled

Reclaimed water is water that has been used once, cleaned very carefully, and then used again for things that don't need drinking-water quality.

Think of it like this: If you spill a little water on your desk and wipe it up with a towel, the towel gets wet. If you squeeze the towel out into a bucket, that water isn't good to drink — but you could use it to water a plant. That's the idea behind reclaimed water!

Reclaimed water usually comes from:

- Water that goes down sinks
- Water from showers and bathtubs
- Water from washing machines
- Water that gets flushed down toilets

All of this water goes to a water treatment plant, where it gets cleaned. Big stuff is removed. Tiny bits are filtered out. Germs are killed using special processes. After all that, the water is clean enough to use again — but not for drinking. More treatment would be needed to clean the already used water to drinking water quality.

Reclaimed water is great for things such as:

- Watering lawns, parks, and schoolyards
- Filling ponds or lakes
- Cooling equipment at factories and other businesses
- Flushing toilets in some buildings

Reclaimed water helps save our fresh drinking water for things we really need, like drinking, cooking, and brushing our teeth. In that way, reclaimed water helps save drinking water.

Reclaimed Water Facts

- About 50,000 Pasco homes and businesses use reclaimed water for irrigation.
- It can take from three to seven homes to produce enough wastewater to irrigate a single home landscape with reclaimed water.
- Pasco County's reclaimed water is stored in two reservoirs and 11 storage tanks.
- Pasco County's 4G Wetlands, one of the largest man-made wetlands in the world, is recharged with reclaimed water.

Mine for New Water



Help Miner Drippy find all the water drops without going to the same spot more than once. Making sure he has water will help him stay healthy.

How a Water Meter Measures Water Flow

Let's look at what happens inside a nutating disc water meter, one step at a time, to understand how a water utility can measure a customer's water use.

NUTATING DISC: A nutating disc is a round, flat piece on a pivot point that tilts and wobbles in a circle rather than spin. Picture a coin dropped on a table and the way it rocks from side to side.

PIVOT POINT: A pivot point is the place where an object is held in one spot so it can tilt, swing or rotate around.

CHAMBER: A chamber is an enclosed area that holds water.

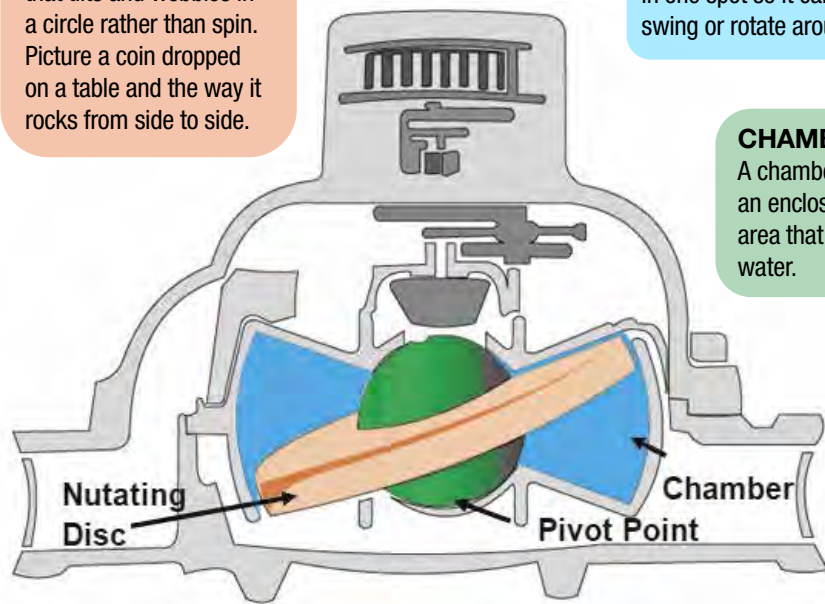


Diagram of a nutating disc water meter.

STEP 1

Water is used or a leak occurs on customer side of the meter.

STEP 2

When the opening occurs on the customer side, water flows from the utility's water pipes into the water meter's chamber. Water can only move through by pushing on the nutating disc inside. The disc is mounted on a pivot point.

STEP 3

As water flows past the nutating disc, the disc rocks and traces a wobbling circular path inside the chamber.

STEP 4

Each full rotation of the disc represents a known, fixed amount of water passing through.

STEP 5

When the disc wobbles, a small pin or rod linked to a shaft moves in the circular motion of the disc. The shaft connects to a set of gears that are sized so that a certain number of disc wobbles equals one full turn of a gear.

STEP 6

On top of the meter is the register that displays numbers that look like the odometer in many cars. The gears turned by the disc turn the numbers on the register. The numbers on the register count how many gallons of water passed through the meter.

After passing through the meter to be counted, the water continues out of the meter to the customer's plumbing. Pasco County Utilities uses nutating disc water meters at many of its locations but is transitioning to ultrasonic meters. Ultrasonic meters use high-frequency sound waves to measure flow. When water enters the measuring tube, ultrasonic signals are sent consecutively, with and against the flow of water. Velocity is then determined by measuring the time difference between the measurement in the forward and reverse directions. Total volume is calculated from the measured flow velocity using temperature and pipe diameter. Because the ultrasonic meters have no moving parts, they are easier to maintain.

The utility also is updating the way it captures meter reads at individual service locations. A little more than half of the meters in the utility's service area are AMR meters. AMR stands for Automatic Meter Reading. To read the meter, someone drives by in a vehicle with a special computer. The meter sends out a signal, and the computer picks it up. To collect all the meter reads in a community, the driver has to drive near every house.

When meters need to be replaced, they are being replaced with AMI meters. AMI stands for Advanced Metering Infrastructure. AMI meters are "smart" meters. They send water use information directly to the utility several times a day, almost like a text message. No one has to drive around, which saves fuel.

AMI meters can help with early leak detection and better water use efficiency for customers.

GOING BEYOND THE TEXT

Reclaimed, recycled, potable

The U.S. Environmental Protection Agency defines potable water as water that is safe and satisfactory for drinking and cooking. Reclaimed water is highly treated wastewater and can be used for irrigation and other uses to extend our water supplies. Research the process of how reclaimed water is treated and used. Learn more information about reclaimed, potable, and recycled water at these sources:

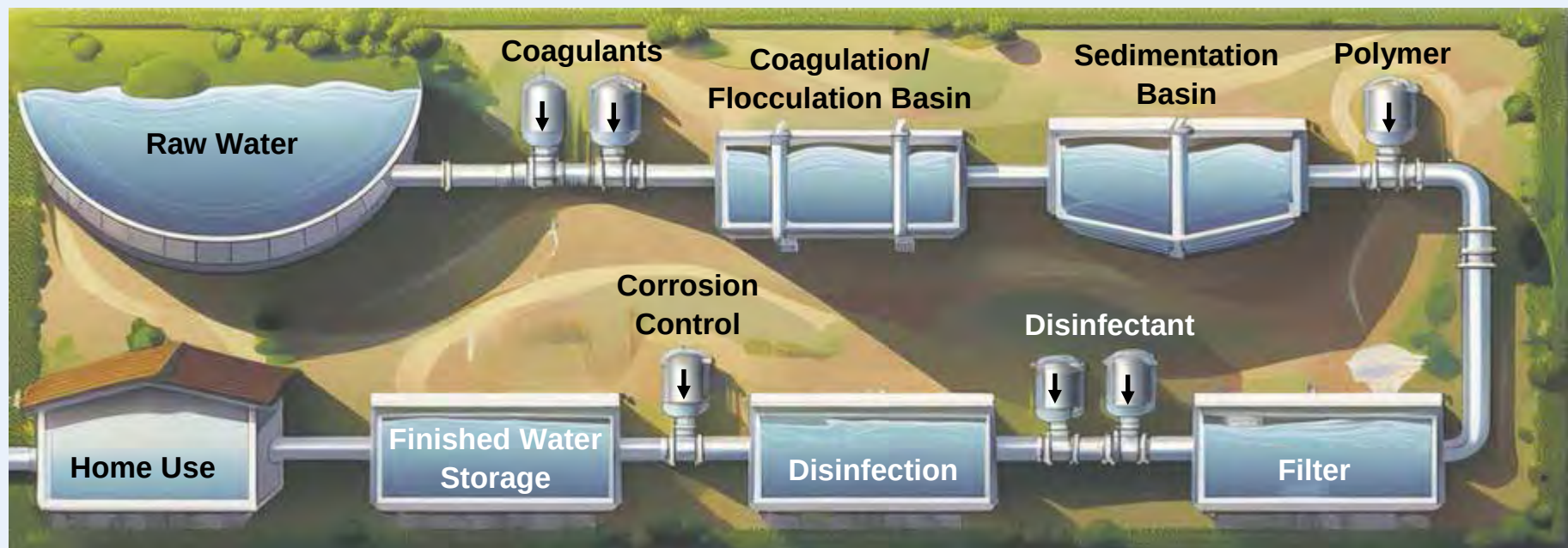


- pascocountyfl.gov/services/utilities/water_resources/reclaimed_water_resources.php
- www.swfwmd.state.fl.us/projects/reclaimed-water
- tampabay.wateratlas.usf.edu/upload/documents/WhatIsReclaimedWater.pdf
- youtube.com/watch?v=tt3_oDCDzUE
- epa.gov/waterreuse/basic-information-about-water-reuse
- floridadep.gov/southwest/sw-permitting/content/recycled-water-facts

Standards: SC.38.N.1.1; SC.3.N.1.2; SC.3.N.1.3; SC.3.N.1.6; SC.3.P.9.1; SC.4.L.17.4; SC.4.N.1.2; SC.4.N.1.6; SC.7.E.6.6; ELA.38.EE.1.1; ELA.38.EE.2.1; ELA.38.EE.3.1; ELA.38.EE.4.1; ELA.38.EE.5.1; ELA.38.EE.6.1; ELA.38.C.1.3; ELA.38.C.1.4; ELA.38.C.1.5; ELA.38.C.2.1; ELA.38.C.3.1; ELA.38.C.4.1; ELA.38.C.5.1; ELA.38.F.1.3; ELA.38.F.1.4; ELA.38.R.2.2; ELA.38.R.2.3; ELA.38.R.2.4; ELA.38.V.1.1; ELA.38.V.1.3; ELA.38.F.2.1; ELA.38.F.2.2; ELA.38.F.2.3; ELA.38.F.2.4

Take notes while you are reading and/or viewing these sources. Using the news articles in the Tampa Bay Times and Beacon newspapers, write a news article explaining the different types of water and how they are used. Be sure to include the benefits and dangers. Share the main points of your article and what you learned with your class.

Making Drinking Water for Pasco



Coagulation	Coagulation is the chemical process of removing suspended solids from source water. The process causes the solids to bind together to form small particles called floc.
Flocculation	During the flocculation process, polymers are added to the water inside another large tank. The polymers help the smaller clumps of floc bond together to form larger clumps.
Sedimentation	Water moves up a series of closely spaced plates allowing heavier floc particles to settle to the bottom.
Filtration	Water enters near the top of a filter bed and flows down through the filter medium.
Disinfection	Disinfectants are added to the water in the final stage to kill any disease-causing organisms that may be in the water.
Corrosion Control	The pH level of drinking water reflects how acidic it is. Acidity (pH) is measured on a scale of 0 to 14, with 7 considered neutral.

Water Conservation Challenge

Take this water conservation challenge home and complete as many activities as you can with your family in one week. Earn points for completing activities to earn your rank and badge!



RANKS:

WATER ROOKIE	WATER SAVER	WATER GUARDIAN	WATER CHAMPION
5 Water Points	10 Water Points	15 Water Points	20 Water Points

ACTIVITY TYPE

Each completed activity earns **one** water point.

Smart Home Habits

- Perform an indoor leak check with an adult.
- Turn off the faucet during tooth brushing in the morning.
- Turn the faucet off during tooth brushing in the evening.
- Take a shorter shower or bath.
- Turn off tap while soaping hands.
- Use one cup or refillable bottle for water all day.
- Review the water cycle.

Learn and Share

- Tell a friend about the small percentage of water available for use.
- Share five facts about water with your friends or family.
- Explain the difference between reclaimed water and drinking water.
- Share three water saving tips with a friend.
- Find the name of the water drop character within this publication.

Outdoor Water Use

- Perform an outdoor leak check with an adult.
- Water plants in the morning or evening.
- Ask an adult family member what water source, if any, is being used, for irrigation at your home.



Teamwork and Leadership

- Start a family water saver pledge.
- Remind family members to run full laundry loads.
- Tell your family about the importance of water conservation.
- Help run a full dishwasher load.
- Make a water bank deposit.

GOING BEYOND THE TEXT

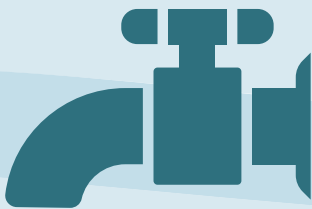
Examining cause and effect

Waste can result in a shortage of resources, especially natural resources such as water. Wasting resources is increasing at an alarming rate not only in the world, but also in our state, county and neighborhoods. Waste can be the result of carelessness or convenience.

Think about the resources used in your home and if they are being conserved or wasted. For example, do you turn off the faucet while brushing your teeth or washing your hands? Do your parents only run the dishwasher or washing machine for full loads? Does your family adhere to Pasco County's water usage suggestions?

Look for an article in the Tampa Bay Times and Beacon newspapers that focuses on wasting resources. Discuss the article with your class. Write down the main points presented in the article. Discuss the ways you can offset this problem. As a class, write down the steps you can take to offset the problem. Then break into small groups and create an infographic or poster outlining those steps to share with others.

Standards: SC.38.N.1.1; ELA.38.EE.1.1; ELA.38.EE.2.1; ELA.38.EE.3.1; ELA.38.EE.4.1; ELA.38.EE.5.1; ELA.38.EE.6.1; ELA.38.C.1.3; ELA.38.C.1.4; ELA.38.C.1.5; ELA.38.C.2.1; ELA.38.C.3.1; ELA.38.C.4.1; ELA.38.C.5.1; ELA.38.F.1.3; ELA.38.F.1.4; ELA.38.R.2.2; ELA.38.R.2.3; ELA.38.R.2.4; ELA.38.V.1.1; ELA.38.V.1.3; ELA.38.F.2.1; ELA.38.F.2.2; ELA.38.F.2.3; ELA.38.F.2.4



Water conservation

Water plays an important role in our lives. Because we live in a state surrounded by so much water, we often forget about the importance of conservation.

Here is how you can help:



Take the Classroom Challenge at:

swfwmd.state.fl.us/residents/education/take-the-classroom-challenge.



Calculate how much water you are using at home and share the data with the rest of the class.



Then, make a list of the ways you and your families can conserve water. Some ideas include the following suggestions:

- using water-saving appliances
- using a broom instead of the hose outside on our porches and driveways
- shutting off the water while you brush your teeth
- running a full load of laundry
- using rain barrels in gardens
- taking shorter showers

Next, using articles from the Tampa Bay Times and Beacon newspapers, research water conservation throughout this month. Look for articles focusing on water use or water waste.

Compile the information you learn and discover into a PowerPoint or Canva presentation to share with your class. Be sure to include key things you have learned as well as how you conserved water.

Standards: SC.35.N.1.1; SC.35.N.1.2;

SC.3.N.1.3; SC.3.N.1.4; SC.3.N.1.5;
SC.3.N.1.6; SC.3.N.1.7; SC.3.N.1.8;
SC.3.E.6.6; SC.4.E.6.3; SC.4.L.17.4;
SC.4.N.1.6; SC.7.E.6.6; ELA.38.EE.1.1;
ELA.38.EE.2.1; ELA.38.EE.3.1; ELA.38.
EE.4.1; ELA.38.EE.5.1; ELA.38.EE.6.1;
ELA.38.C.1.3; ELA.38.C.1.4; ELA.38.C.1.5;
ELA.38.C.2.1; ELA.38.C.3.1; ELA.38.C.4.1;
ELA.38.C.5.1; ELA.38.F.1.3; ELA.38.F.1.4;
ELA.38.R.2.2; ELA.38.R.2.3; ELA.38.R.2.4;
ELA.38.V.1.1; ELA.38.V.1.3; ELA.38.F.2.1;
ELA.38.F.2.2; ELA.38.F.2.3; ELA.38.F.2.4

Cleaning Dirty Water 101

Water can look dirty, but we can filter it to clean it — a bit like water treatment plants do. Here's an at-home or in-classroom experiment to see how utilities start to produce drinking water.

Set-Up

- 1 Put a coffee filter on top of the bottle and secure it with a rubber band.
- 2 Put the top half of the plastic bottle upside down on top of a clear cup.
- 3 Inside the plastic bottle, add layers in this order:
 - **Bottom:** cotton balls
 - **Middle:** sand
 - **Top:** gravel

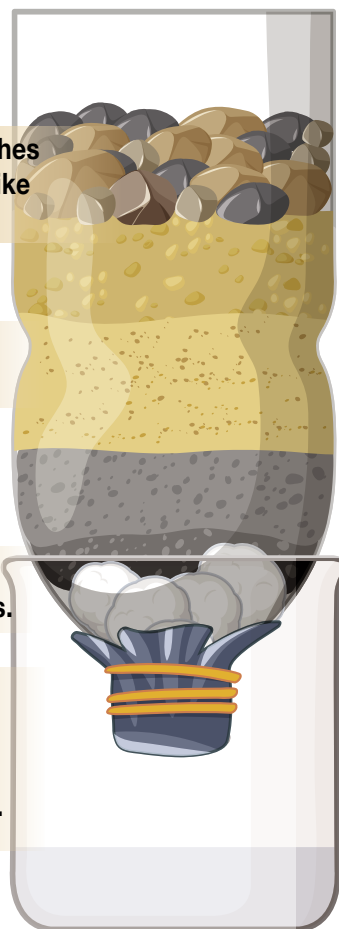
Here's how it works:

1. Gravel catches big pieces like leaves.

2. Sand traps smaller dirt.

3. Cotton balls catch tiny bits.

4. Coffee filter slows the water for the layers to work.



Your water is filtered but not OK for drinking. Water utilities use many more steps, including special steps to remove germs to make sure your tap water is ready to drink. Learn about the utility treatment process on page 12.



1. Don't drink the dirty or filtered water.
2. Only adults handle anything sharp.
3. Wash hands afterward.

Materials

- 1 cup of dirty water (tap water + a little soil + leaf bits)
- 1 clear cup
- 1 plastic water bottle cut in half (adult job)
- Coffee filter or paper towel
- Cotton balls
- Sand
- Small gravel or pebbles
- Rubber band or tape

Steps:

- 1 Slowly pour the dirty water onto the gravel.
- 2 Watch the water drip through the layers into the cup below.
- 3 Compare the filtered water to the original dirty water.

SOLUTION: Mine for New Water

Maze puzzle on page 10.



Every Fresh Water Drop Matters

Water covers much of our planet, but only a small portion is freshwater — the kind people, plants, and animals can safely use. Freshwater is water with very little dissolved salt. Much of it is frozen in glaciers and ice caps, so we can't use it for drinking, cooking, bathing or farming. That's why every drop of clean freshwater matters.

This activity for home or classroom shows how little water is available for use.

You will need:

- 💧 A clean 1-gallon jug
- 💧 A large, graduated liquid measuring cup
- 💧 Two clear drinking glasses
- 💧 A tablespoon measure
- 💧 Eyedropper or drinking straw

Safety tip:

Pour carefully and slowly. Wipe spills right away.



1. Fill the gallon jug with water to represent all the water on Earth.
2. Pour about ½ cup of water from the jug into the measuring cup. This represents Earth's total freshwater (both frozen in glaciers and ice caps and in liquid form).
3. From the measuring cup, scoop 1½ tablespoons of water into a drinking glass. This represents the amount of total freshwater that is available for use. The remainder in the measuring cup represents freshwater frozen in glaciers and ice caps.
4. From that drinking glass, use an eyedropper or a straw to place one drop of water into the second drinking glass. This drop represents the small amount of freshwater available for use.
5. Be sure to recycle all remaining water for watering plants.

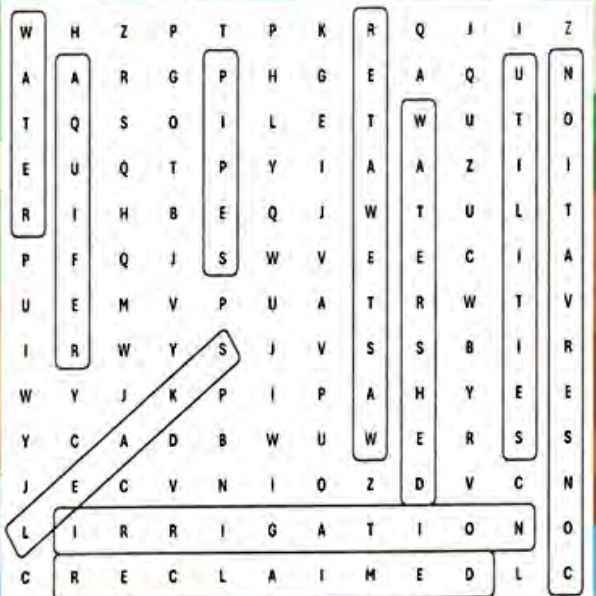


Questions:

- 1 Based on this visualization, are you surprised to see how little water there is available for use?
- 2 Can you see why saving water is important?

SOLUTION: Water World Word Search

Word search puzzle on page 4.



About Pasco County Utilities

Pasco County Utilities' constant goal is to provide our customers with a dependable supply of high-quality drinking water. To meet that goal, we own and operate a water system consisting of groundwater supply wells, potable water storage and a distribution system with about 250,000 connections in unincorporated Pasco County.

Pasco County Utilities also treats about 36 million gallons of wastewater to near drinking water quality daily. The treated wastewater is reinvested

in the community for irrigation, commercial applications and wetlands augmentation.

Water conservation programming is an integral part of the utility's commitment to provide a dependable water supply today and ensure a resilient, affordable water supply into the future.

For more information about Pasco County Utilities Services and water conservation, visit **PascoCountyUtilities.net**.



Tampa Bay Times Newspaper in Education

The Pulitzer Prize-winning Tampa Bay Times is the largest daily newspaper in Florida. Locally owned and independent, the Times has long been celebrated for its outstanding and credible journalism, practiced with integrity in the public interest. The Times has been part of the Tampa Bay community for more than 140 years.

Since the 1970s, the Tampa Bay Times Newspaper in Education program (NIE) has served educators, students, families and community members in the Tampa Bay area by providing classroom access to the Tampa Bay Times plus award-winning original educational publications, teacher guides, lesson plans and educator professional development resources – all at no cost to schools, teachers or families. In 2025-2026, NIE provided more than 11 million digital newspaper licenses and nearly 200,000 print copies of the Tampa Bay Times to area classrooms.

A living textbook, the newspaper, a primary and secondary source, is an optimal tool to engage students and expose them to multiple perspectives on significant issues of the past and present. The use of newspapers in classrooms supports instruction and helps students succeed in all levels of academic programs, from elementary schools through college.

To learn more about the Times NIE program, visit **tampabay.com/nie**, call 727-893-8138 or email ordernie@tampabay.com. Contact NIE Manager Jodi Pushkin at jpushkin@tampabay.com. Follow us on Facebook and Instagram @TBTNIE. Teacher webinars can be viewed on our YouTube Channel @TampaBayTimesNIE.



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Florida Standards

This publication and its activities incorporate the following Florida Standards for elementary and middle school students. ELA.38.EE.1.1; ELA.38.EE.2.1; ELA.38.EE.3.1; ELA.38.EE.4.1; ELA.38.EE.5.1; ELA.38.EE.6.1; ELA.38.C.1.3; ELA.38.C.1.4; ELA.38.C.1.5; ELA.38.C.2.1; ELA.38.C.3.1; ELA.38.C.4.1; ELA.38.C.5.1; ELA.38.F.1.3; ELA.38.F.1.4; ELA.38.R.2.2; ELA.38.R.2.3; ELA.38.R.2.4; ELA.38.V.1.1; ELA.38.V.1.3; ELA.38.F.2.1; ELA.38.F.2.2; ELA.38.F.2.3; ELA.38.F.2.4; SC.3.N.1.1; SC.3.N.1.2; SC.3.N.1.3; SC.3.N.1.6; SC.3.N.3.2; SC.3.P.9.1; SC.4.E.6.3; SC.4.L.17.4; SC.4.N.1.1; SC.4.N.1.2; SC.4.N.1.6; SC.4.P.8.2; SC.5.E.7.2; SC.5.N.1.1; SC.5.N.1.6; SC.6.E.7.2; SC.6.N.1.1; SC.6.N.1.4; SC.6.N.1.5; SC.7.E.6.6; SC.7.L.17.3; SC.7.N.1.1; SC.8.N.1.1; SC.8.N.1.6; SC.8.N.4.1