The Water Conservation Office is currently restructuring our programs to better serve our educators and students. This year we started with 3<sup>rd</sup> and 4<sup>th</sup> grade, with the goal of adding other grades in the future. Most of our programs are adaptable for several grade levels, so if you see a program that interests you, please contact us even if it's listed under 3<sup>rd</sup> or 4<sup>th</sup> grade.



## **Contents:**

3<sup>rd</sup> Grade Program Menu – Programs and activities specifically target 3<sup>rd</sup> grade GPS

4<sup>th</sup> Grade Program Menu – Programs and activities specifically target 4<sup>th</sup> grade GPS

**Additional Programs** – Programs for a wide range of ages

On Site Programs – Programs available when you visit our drinking water or water reclamation facilities

<u>Special Occasion Activities</u> – Perfect activities for festivals, carnivals, events, or science nights

## Program Menu – 3<sup>rd</sup> Grade

#### Flow to Us:

## Drinking Water Treatment Plant Tour

## **Grades 3-Adult, Target 3**

Take a guided tour of Athens-Clarke County's Drinking Water Treatment Plant. Students see firsthand how ACC provides clean and safe water for the citizens of Athens. Learn about the daily demands put on our water supply and how we can conserve our valuable resource.

Target Grade GPS: S3E1a

Additional GPS: S4CS1, S4CS4, S4CS8, S5CS1, S7CS2, S7CS5, SCSh1, SCSh2, SEV5

#### We Flow to You:

# Drop in the Bucket/Water Conservation Concentration Grades Pre-K – 5, Target 3

Uses great visuals to demonstrate how less than 1% of the water on Earth is available for drinking. Learn ways to conserve this precious resource through an oversized, interactive conservation concentration game.

Target Grade GPS: S3E1b, M3N1, M3N2, M3N3, M3N4, M3N5, M3D1, M3P1, M3P2, M3P3, M3P4

Additional GPS: ELAKR1, ELAKR3, ELAKR4, ELAKR6, ELAKLSV1, ELA1R2, ELA1R4, ELA1R6, ELA1LSV1, ELA2R1, ELA2R2, ELA2R3, ELA2R4, ELA2W1, ELA2LSV1, M4N4, M4N6, M4P1, M4P2, M4P3, M4P4, M4P5, S5E1C, M5N1, M5N2, M5N3, M5N4, M5N5, M5D2, M5P1, M5P2, M5P3, M5P4, M5P5, S6E3a, S6E5i, S6E6b, M6N1, M6M1, M6M2, MS6E6, SB4, SPS2, SPS5, SSEF1?

## Don't "Frog"-et About Us!

## Grades Pre-K -5, Target 3

Frogs are disappearing at an alarming rate. These amphibians are thought to be indicative of the health of the biosphere as a whole. Discover an appreciation of frogs and learn how your actions with water impacts frogs' futures.

Target Grade GPS: S3E1a, S3E1b, ELA3LSV1

Additional GPS: ELAKLSV1, SKCS4, SKL2, ELA1LSV1, S1CS4, S1L1, SS1G3, ELA2LSV1, S2CS4, S2L1, ELA4LSV1, S4L1, S4L2, ELA5LSV1, S5L1, S5L4

#### **Sum of the Parts**

#### **Grades 3-12, Target 3**

Students learn how they positively and negatively contribute to water quality and how land use and natural factors impact the health of our rivers and streams. Learn how to reduce you pollution contribution.

Target Grade GPS: S3L2a, S3L2b

Additional GPS: ELA4W1, ELA4W2, ELA4W3, S4L1C, ELA5W1, ELA5W2, ELA5W3, S5L4a, S5L4b



## Money Down the Drain

### **Grades 3-8, Target 3**

Why pour money down the drain when every drop counts? Simple calculations illustrate the losses associated with a dripping faucet and emphasize the need to adopt water conservation habits. Target Grade GPS: S3L2b, ELA3R1, ELA3R2, 3LA3R3, ELA3W1, ELA3C1, M3N3, M3N4, M3M1, M3P1, M3P2, M3P3, M3P4, M3P5

Additional GPS: ELA4W2, ELA4W3, ELA4LSV1, ELA4LSV2, M4N2, M4N3, M4P1, M4P2, M4P3, M4P4, M4P5, ELA5W2, ELA5W3, ELA5LSV1, ELA5LSV2, S5P1a, S5P2b, M5M1, M5D2, M5P1, M5P2, M5P3, M5P4, M5P5

#### **Reaching Your Limits**

#### Grade 3-8, Target 3

Through a game of "water limbo," students experience the effort involved in meeting drinking-water quality standards and are introduced to the concept of the ratio one to a million.

Target Grade GPS: S3L2a, S3L2b,

Additional GPS: S4L1c, S5L4b, M5N1, M5N5, M5M3, M5D2, M5P1, M5P2, M5P3, M5P4, M5P5

#### **Water Works**

#### Grade 3-8, Target 3

Students will recognize our dependence on water for survival. They next create a "water web" to illustrate the interdependence among water users and producers.

Target Grade GPS: S3L2a, S3L2b,

Additional GPS: S4L1b, S4L1c, S4L1d

#### **Common Water**

#### **Grades K-8, Target 3**

Take a step through time as we compare water usage in Athens over the past two centuries. Students represent various Athens' water users and discover the effects different user types have on our supply. Target Grade GPS: S3E1a, S3L2a

Additional GPS: SS1E2, SS2E1



## Program Menu – 4<sup>th</sup> Grade

#### Flow to Us:

#### **Tour Cedar Creek**

#### **Grade 4-Adult, Target Grade 4**

Come visit the microorganisms that clean the wastewater at Athens-Clarke County's Cedar Creek Water Reclamation Facility. These indispensable consumers are a part of the biological treatment our wastewater receives before being returned to the Oconee River.

Target Grade GPS: S4L1a, ELA4R3, ELA4LSV1

Additional GPS: S5L4, ELA5LSV1

#### We Flow to You:

#### **Incredible Journey**

#### Grades 3-8, Target Grade 4

Students become water droplets and simulate the movement of water within the water cycle. Some will get stuck in clouds and glaciers while others are passed through an animal!

Target Grade GPS: S4E3a, S4E3b, S4E3c, S4E3d

Additional GPS: ELA3R1, ELA3R2, ELA3R3, ELA3W1, ELA3LSV1 ELA3C1,

#### **Molecules in Motion**

#### **Grades 2-6, Target Grade 4**

This activity brings water molecules up to size (student-size!) by physically involving students in simulating molecular movement in each of water's physical states (solid, liquid, gas).

Target Grade GPS: S4E3a, S4E3b, S4E3c, S4E3d

Additional GPS: S1E2a, S1E2b, S1E2c, S2P1a, S2P1b, ELA3R3, ELA3W1, ELA3LSV1 ELA3C1, S3P1c, S3P1d

#### **Imagine**

#### **Grades 3-8, Target Grade 4**

Take an imaginary journey with water in its solid, liquid, and gaseous forms as it travels around the world. Students are read a descriptive narrative to stimulate the imagination and then they create illustrations representing the path taken by their water molecule.

Target Grade GPS: S4E3a, S4E3b, S4E3c, S4E3d, ELA4W1, ELA4W2, ELA4LSV1, ELA4LSV2

Additional GPS: ELA5W1, ELA5W2, ELA5LSV1, ELA5LSV2,

#### **Poetic Precipitation**

#### **Grade 3-8, Target Grade 4**

While learning about the conditions that produce condensation, students create poems that express thoughts and feelings about rain, snow, and other forms of precipitation.

Target Grade GPS: S4E3a, S4E3b, S4E3c, S4E3d, ELA4R1, ELA4R3, ELA4W1, ELA4LSV2

Additional GPS: ELA5R1, ELA5R3, ELA5W1, ELA5LSV1, S5P2b



# Parachute into a State of Matter Grade 2-8, Target Grade 4

H2O Yeah! How do water molecules do that? Explore the H2O molecule. Use a parachute to create energy and see how water molecules change from solid, to liquid, to gas based on the level of energy. Target Grade GPS: S4E3a, S4E3c, S4E3d, S4E3e, ELA4R3

Additional GPS: S1E2a, S1E2d, S2P1a, S2P1b, ELA3LSV1 ELA3C1, S3P1c

#### **Water Match**

#### **Grade K-5, Target Grade 4**

Students match up pairs of water picture cards and in the process learn to distinguish the three states of water – solid, liquid, and gas.

Target Grade GPS: S4E3a

Additional GPS: ELAKR1, ELAKR3, ELAKR6, ELAKW1, ELAKLSV1, ELA1R1, ELA1R3, ELA1R4, ELA1R6, ELA1LSV1, S1E2a, S1E2b, S1E2c, S1E2d, ELA2R1, ELA2R2, ELA2R3, ELA2R4, ELA2LSV1, S2P1a, S2P1b



### **Additional Programs**

#### **Enviroscape**

#### **Grades K-Adult**

Using a tabletop model, students explore the man-made water cycle. Discover where our water comes from, how it becomes potable, how it's transported to their homes, how it's treated after use, and where it is discharged.

GPS: S4CS1, S4CS8, S5E1

#### **H2O Olympics**

#### Grade 3-8

Compete in a Water Olympics to investigate two properties of water, adhesion and cohesion. Can you make water defy gravity?

GPS: ELA3R1, ELA3R2, ELA3R3, ELA3W1, ELA3LSV1, ELA3C1, M3D1, M3P1, M3P2, M3P3, M3P4, S4E3a, S4E3b, S4E3c, S4E3d, S4E3e, M4P1, M4P2, M4P3, M4P4, M4P5, M5M3, M5D2, M5P1, M5P2, M5P3, M5P4, M5P5

#### **Water Concentration Games**

#### **Grades Pre-K-5**

Play an oversized game of Memory! Themes include:

Don't "Frog" et the Frogs of Georgia – Match the frogs who reside in our area

Water Conservation Concentration – Learn about ways to conserve water and improve your memory Who Needs Water? – All living organisms need water! In a twist, you must match the baby to the adult.

#### The FOG

#### **Grades Pre-K-5**

Stop FOG from going down the drain! Discover how Fats, Oils, and Grease change from liquids to solids, leading to costly and unpleasant sewage backups. Participate in a relay and learn how to fight FOG! GPS: S1L1, S2E3, S2P1, S3L2a, S3L1b, S5E1c

#### **Edible Aquifers**

#### **Grades Pre-K-8**

An aqui-what? Learn what an aquifer is, how it plays a role in our water supply, and why we should conserve water. Participants create an aquifer they can consume using ice cream and other goodies.

#### **Water Charades**

#### **Grade Pre-K-3**

Students explore the ways we use water in our everyday lives through a game of charades. Afterwards, we share a few water conservation tips to teach students simple ways to protect this precious resource. GPS: ELAKLSV1, ELA1LSV1, S1L1b, ELA2LSV1, ELA3LSV1, S3L2b

#### **Water Conservation Puppet Show**

#### **Grade Pre-K-3**

Coming soon!



#### **On Site Programs**

#### **Programs at Water Treatment Plant**

#### The Long Haul

#### **Grades K-12**

We turn on our faucet and water appears. Not everyone in the world has this luxury. Students work in teams to compete in a water-hauling game and develop an appreciation for our readily available water supplies. Things can get a little wet, so this activity is best for outdoors.

GPS: MKM1b, MKP1, M1M2a, M1M2c, M3M1, M3P1, M3P2, M3P3, M3P4, M3P5, M4P1, M4P2, M4P3, M4P4, M4P5

#### Just Pipe Up!

#### Grades 3-8

Students build a pipeline in a puzzle activity using tubes for pipes to make a delivery and collection system that mimics the journey water takes from river to river in the man-made water cycle. GPS: S4E3, ELA4LSV1, ELA4W1, ELA5LSV1, ELA5W1, S6E3, ELA6LSV1, ELA6W1

#### **Wet-Work Shuffle**

#### **Grades K-12**

Who is responsible for treating our drinking and wastewater in Athens-Clarke County? Learn about different water resource occupations and place them in a sequence – from water's source, to its delivery into homes, to its return to the source. Perhaps a participant will choose to enter into a career in water, which always will be in demand.

GPS: SS3E1a, SS3E2, SS5E2a

#### Journey of a Raindrop

#### **Grades K-4**

Participants are transformed into water droplets. After falling from the sky, the droplets collect pollution on their way to the stream. The lucky drops then get cleaned and turned into tap water.

#### The Blue Traveler

#### Grade 3-8

With the roll of a die, students simulate the movement of water within and between the natural and constructed water cycles. An understanding of the water cycle in natural and constructed systems supports water conservation measures.

GPS: S4E3d, ELA4LSV1, ELA4W1, S5E1c, ELA5LSV1, ELA5W1, S6E3, ELA6LSV1, ELA6W1,

#### **Sparkling Water**

#### **Grade 3-12**

Students develop strategies to remove contaminants from "wastewater." Learn about nontoxic household cleaning alternatives.

GPS: S3L1a, S3L1d, S4E3d



#### **Special Occasion Activities**

#### Lily the Mascot

Lily Anne Phibian is the coolest frog in Athens! She loves to meet new people and cheer on water conservation efforts. Lily is available to visit your pad for photos, festivals, or friendship.

#### Lily's Pad Game

#### **Grades K-5**

Ready, set, Hop! Children will use basic math and strategy skills to make it to the finish line of a life-size board game. Along the way, they will learn the dos and don'ts of water conservation.

GPS: ELAKLSV1, MKN1, MKN2, PEK.1, PEK5.1, ELA1LSV1, M1N3, PE1.1, PE1.5, ELA3LSV1, M3N2, S3L2,

PE3.5, ELA4LSV1, S4L1, PE4.5

#### **Toilet Toss Trivia**

#### **Grades Pre-K-6**

You bring the people, we bring the toilet! Participants answer water trivia questions before tossing a ball into the toilet (Don't try this at home!) and winning a prize. Great for festivals and carnivals. GPS: Random questions for child's grade level cover S1E2a&b, S2P1, S2L1, S3P1d, S3L2a&b, S4E3a,b,c,d,e, S5L1a, S6E3a,b S6E6b

#### Water Cycle in a Bottle

#### **Grade Pre-K-Adult**

Students get their hands a little dirty building their very own terrarium to see the water cycle in action. See the entire natural cycle right before your eyes!

GPS: S2CS7, S3P1, S4CS1, S4E3, S5CS1, S6CS5, S6E3, S7L4, S8CS5

#### **Water Conservation Fortune Teller**

#### **Grade Pre-K-6**

Enter into the Water Conservation Fortune Teller's tent, look into the plasma ball, and discover how you will be conserving water in your near future.

GPS: S3L2b

#### **Edible Aquifers**

#### **Grades Pre-K-8**

An aqui-what? Learn what an aquifer is, how it plays a role in our water supply, and why we should conserve water. Participants create an aquifer they can consume using ice cream and other goodies.

