## LEARNING ABOUT WATER AT HOME



A COMPILATION OF LESSON PLANS AND RESOURCES ABOUT WATER FOR PARENTS AND CHILDREN LEARNING TOGETHER



## We are here to help!

Fort Worth Water has water conservation staff doing education and outreach for residents all year. We typically do live lessons, demonstrations, seminars, presentations and events to get the message out.

The COVID-19 Emergency means we cannot come to you right now. So, to help parents (now teachers) and their children (still students) engage together, we have compiled a list of activities and lesson plans from a variety of local, state, and national resources to help you teach about engaging topics in an organized, creative and structured way.

If you have questions about lesson plans or need some information to make a lesson work for you, we have a certified teacher on staff to help you - just an email away at <u>WaterConservation@fortworthtexas.gov</u>.

Thank you for your dedication to continuing to educate the future leaders of Fort Worth.



## **Resources for Teaching about Water Conservation** Ready to Use, Downloadable Lesson Plans

Suggested grade levels (EL: K-5) (MS: 6-8) (HS: 9-12)

The EPA's <u>WaterSense for Kids</u> webpage contains resources for educators that include water conservation lesson plans:

- Showering Better (Grades 3-8)
- Fix a Leak (Grades 3-5)
- A Day in the Life of a Drop (Grades 3-5)

The EPA also has a webpage devoted to activities about drinking water. (EL, MS, HS)

Download free lesson plans and handouts from the TCEQ's <u>Take Care of Texas</u> publications for educators. These plans, which cover water conservation and other conservation topics, are for use by instructors with students of all ages.

The <u>Texas Water Development Board</u> has a 16-page downloadable Water for Texas coloring book and downloadable TWDB Kids resources guide with more lesson ideas. TWDB also has an 8lesson unit called <u>Major Rivers: A Texas Water Education Program</u> for grades 4-5.

The Environmental Science Institute at the University of Texas at Austin has created a hands-on lesson plan on <u>water conservation for early elementary school</u>. (EL) They also have a <u>saving</u> <u>water lesson plan</u> for grades 6-8 on saving water. (MS)

Individual student handouts and lesson plans (with TEKS references) provided below in pdf. <u>Project Wet</u> offers several downloadable resources:

- Clean and Conserve Your Water activity book, with accompanying teacher resource guide. (EL, MS)
- Clean and Conserve Water Science Project (HS)
- Water for You and Me children's storybook (EL)
- Activity Guide featuring five single-lesson activities (Adaptable for age)

<u>The Water Project</u> offers downloadable Water Crisis Lesson Plans, for grades K-12, packed with engaging lesson for students. Written by a certified teacher with a busy professional in mind, we're sure you'll find the activities useful out-of-the-box or as a great head start. (K-12)

The Alliance for Water Efficiency offers an interactive <u>Home Water Use Calculator</u>. Take the tour with your kids to calculate the savings from a few simple conservation behavior changes. (All ages)

Use the Water Education Foundation <u>Food Facts</u> page have kids plan and plant a virtual garden on paper using the water usage guide to group plants in appropriate parts of the garden for watering purposes. Locate your county on the <u>TexasCounties.net</u> website to see what plants would be suited for growing based on 50 years of precipitation data by county. (Grades 3-8) As part of the <u>Irrigation Association's</u> education initiative, they have created an elementary school curriculum. Focusing on grades three through five, the curriculum's activities take the student on a journey through the benefits of irrigation, including agriculture, landscape and its history. The IA collaborated with Young Minds Inspired to develop and distribute the curriculum. During the initial roll-out, the curriculum was distributed to more than 10,000 schools in four states: California, Florida, Nebraska and Texas. (EL)

NASA has 10 lessons plans focusing on water conservation on their <u>Survivor: Earth</u> education page. (EL, MS)

<u>Penn State University</u> has created 23 water lesson plans for grades K-5. They range from basic watershed lessons to art projects to data collection and manipulation. (EL)

In a <u>PBS Learning Media</u> water conservation lesson plan, students study the availability of fresh water on Earth and the methods that can be used to purify and conserve it. They also assess how much water they and their families typically use and think about ways to reduce water usage. The lesson plan features 6 videos for better understanding. (MS)

While the US Geological Service does not offer specific lesson plans, the <u>USGS Water Science</u> <u>School</u> is a great source of information for students involved in doing research, writing reports, or just interested in learning more about water as a resource. (MS, HS)

Lesson Planet is the leading online curriculum search solution for PreK-12 educators. The award-winning search engine enables teachers to easily search more than 350,000+ teacher-reviewed curriculum resources within an online, professional community. Teachers can invigorate their curriculum and save valuable planning time by using search criteria to narrow by subject, grade, 21st Century Skills, Common Core and state standards, and more. Founded by educators in 1999, the company is committed to helping teachers be great teachers. Every resource is reviewed and rated by Lesson Planet's team of credentialed teachers, providing quality members can trust. **It is a PAID curriculum but you can access it free for a 10-day trial.** Use that time to try out some of their <u>water conservation lesson plans and activities</u>. (EL, MS, HS)

<u>Water Footprint Calculator</u> has a page dedicated to teacher and student resources, including a video for elementary students and 6 lesson plans geared to middle and high school students. (EL, MS, HS). The website has links to other water websites for kids and has a water footprint calculator tool.

<u>National Geographic Kids</u> has several interactive lesson plans, videos, and hundreds of animal life profiles available. Lessons include How to Make Bottle Music, All Charged Up: Wiggly Water, and How to Make a Water Filter. (EL, MS)

## Links:

- <u>https://www.epa.gov/watersense/watersense-kids</u>
- <u>https://www.epa.gov/ground-water-and-drinking-water/drinking-water-activities-</u> <u>students-and-teachers</u>
- <u>http://takecareoftexas.org/teachers/lesson-plans-educators</u>
- http://www.twdb.texas.gov/publications/brochures/conservation/
- https://www.twdb.texas.gov/conservation/education/kids/MajorRivers/MajorRiversO
  bj.asp
- <u>http://www.esi.utexas.edu/files/080-Lesson-Plan-Saving-Water-Now.pdf</u>
- <u>http://www.esi.utexas.edu/files/waterconservation\_grades678.pdf</u>
- <u>https://www.projectwet.org/cleanandconserve</u>
- <u>https://thewaterproject.org/resources/</u>
- <u>https://www.home-water-works.org/calculator</u>
- <u>https://www.watereducation.org/post/food-facts-how-much-water-does-it-take-produce</u>
- http://www.texascounties.net/statistics/precipitation.htm
- https://gpm.nasa.gov/education/lesson-plans/water-conservation
- <u>https://ecosystems.psu.edu/youth/sftrc/lesson-plans/water/k-5</u>
- https://kera.pbslearningmedia.org/resource/ess05.sci.ess.watcyc.lp\_waterconservation /water-conservation/
- <u>https://www.irrigation.org/IA/Resources/Elementary\_School\_Curriculu/IA/Resources/Elementary\_School\_Curriculum.aspx?hkey=f62744fd-d34d-48a3-aa65-5f8f0c073ab6</u>
- <u>https://www.usgs.gov/special-topic/water-science-school</u>
- <u>https://www.lessonplanet.com/lesson-plans/water-</u> <u>conservation/all?gclid=CjwKCAjw95D0BRBFEiwAcO1KDMbiOqIJl3yHFzsC6eAtZp3DHeSZ</u> <u>qOBvwoSJpFZVytgp7iBXmI9tMRoCqv4QAvD\_BwE</u>
- <u>https://www.watercalculator.org/educational-resources/</u>
- <u>https://kids.nationalgeographic.com/search-results/?q=water</u>
- <u>http://takecareoftexas.org/teachers/lesson-plans-educators</u>

Have questions about any of these lessons or water conservation in general? Contact us at <u>WaterConservation@FortWorthTexas.gov</u>.

