

Educator Resource Guide



One Truckee River works to ensure a healthy, thriving, sustainable river connected to the hearts and minds of its community.

We all live in the Truckee River Watershed. One Truckee River wants to create an aware and engaged community that protects and cares for the Truckee River – this starts with your students! This Educator Resource Guide highlights outside organizations and opportunities to get your students familiarized with their home, the Truckee River Watershed. See below for an outline of education programs specific to our watershed. For a more detailed plan and to see how Truckee River Watershed education fits into every grade's NGSS standards, please visit www.onetruckeeriver.org and see the One Truckee River Watershed Education Plan.

Core Learning Outcomes: Have your students identify where they live in the watershed and understand that we are all connected (Lake Tahoe, Truckee River, Pyramid Lake, several creeks and ditches all make up the Truckee River Watershed). Why does our connectedness matter? Regardless of where you live, stormwater (litter, dog waste, lawn pollutants, and more) enters storm drains and then the river. The Truckee River is our lifeline (80% of our drinking water comes from it. Students should understand the multiple water user issues and what they can do to keep it clean). Have the students pledge to be a Truckee River steward.

Boys & Girls Club

www.bgctm.org

Several after school and break programming opportunities centered around and about the Truckee River. (Ages: 0-18)

Bureau of Land Management (BLM)

www.handsontheland.org/teachers/data/Wetlands_Field_Activity_Stations_Guide_HotL.pdf

85% of Nevada is in public ownership. Guest speakers can explain the benefits of public lands on water resources. [Downloadable] Wetlands and Riparian Habitat "Hands on the Land" curriculum for qualitative and quantitative field labs (Grades: 6-12)

Desert Research Institute: ScienceAlive (DRI)

www.sciencealive.dri.edu

Inquiry based STEM curriculum through Green Boxes (reserve a Green Box today that focuses on the Truckee's unique trait of being a terminal watershed), teacher trainings, speakers, and field trips. (Grades: pre-K-12)

Envirolution: Project ReCharge

www.envirolution.org/project-recharge-curriculum-info/

Empowers students to drive the growth of a sustainable economy with [downloadable] curriculum (topics include water efficiency and usage), career development, school break sustainability tours. (Grades: 7-12)

Great Basin Institute – Galena (GBI)

www.galenacreekvisitorcenter.org/education-programs.html

Take your class to the Galena Creek Visitor Center. GBI enhances student connection to the environment through field studies for classes, and school break day and residential field camps. (Grades: K-12)

Great Basin Outdoor School (GBOS)

www.greatbasin-os.org/at-a-glance

Day field trips and multi-day overnight ecology camps (during breaks) on Lake Tahoe and other local sites. Students learn with hands-on standards-based activities, and conservation projects. Project WET teacher trainings are available. (Ages: 6-12)

Keep Truckee Meadows Beautiful (KTMB)

<https://www.ktmb.org/warriorsyoutheducation/>

Watershed Warriors presentation and curriculum introduces students to the Truckee River Watershed and opportunities for your classroom to "Adopt-A-River." (Grades: K-12)

Lynell Garfield - Lorelai the Mayfly

www.thesecretlifeofstreams.com/

The Secret Life of Streams is a children's story/field guide about the underwater life of a talking mayfly. Mayflies are indicators of aquatic ecosystem health. Lorelai is available for school assemblies, class presentations, and STEM Trainings. (Grades: K-5)

Nevada Department of Wildlife (NDOW)

www.ndow.org/Education/Wildlife_Ed/Education_Sites/

Connects people to Truckee River wildlife through the Oxbow Nature Study Area, Verdi Wildlife Education Center, and Trout in the Classroom program. Guest speakers can come to you or take your class on a field trip! (All ages)

Pyramid Lake Paiute Tribe Museum and Visitors Center

www.pyramidlake.us/pyramid-lake-visitor-center.html

Multi-purpose museum open 5 days/week features the natural history of Pyramid Lake and why the Paiute people hold it in high esteem. Coloring books available by contacting Pyramid Lake Environmental Department Water Quality Program (775) 574-0101. (All ages)

Sierra Nevada Journeys (SNJ)

www.sierranevadajourneys.org/

Delivers outdoor, science-based education programs (Classrooms Unleashed, Overnight Outdoor Learning, Parent Engagement, Teacher Professional Development, summer camp) to develop critical thinking skills and inspire natural resource stewardship. (Grades: K-6)

Terry Lee Wells Nevada Discovery Museum

www.nvdm.org/exhibitions-and-events/permanent-exhibitions/truckee-connects

Our community science center provides field trips, transportation scholarships, and temporary and permanent Truckee River exhibits contribute to an understanding of clouds (the water cycle) and multiple water users in our watershed. (All ages)

The Nature Conservancy: McCarran Ranch Preserve (TNC)

www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/placesweprotect/mccarran-ranch-preserve.xml

Outdoor education destination. Truckee River Environmental Education Program guides 4th grade students through watershed activities (USFWS, BLM, and NDOW partnership). (All ages can visit the preserve)

Truckee Meadows Parks Foundation (TMPF)

www.tmparksfoundation.org/programs

Park-based programs (Student Stewards Program, Junior Naturalist Program, Mini Bio Blitz, spring and summer camp) raise awareness of vital public spaces. Several of these parks

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Citizen Science opportunities provide your students ways they can each help protect our environmental resources. Citizen science uses beloved technology to get the public involved in science. Below is a list of citizen science opportunities in the region.

Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS)

Volunteers of all ages work together to measure and map precipitation (rain, hail and snow) using low-cost measurement tools, training and education, and an interactive website. CoCoRaHS provides quality data for natural resource, education and research applications. www.cocorahs.org/Application.aspx

Desert Research Institute: Stories in the Snow (DRI)

Students engage in real data collection and research throughout the Lake Tahoe/Truckee Basin. Students can tell the story of a snowflake from just a picture. www.dri.edu/education-and-outreach/stem-stream-at-dri/2017-01-05-18-54-14/stories-in-the-snow

iSeeChange

Connects students with national media & scientists to understand how weather and climate affect their daily lives. www.iseechange.org/about

Tahoe Environmental Research Center (TERC)

TERC has several citizen science projects based in Lake Tahoe (the Truckee River is the ONLY river that flows out of Tahoe). The "Citizen Science LakeTahoe" app allows students to be involved in the source of their drinking water. www.terc.org

Additional tools to increase watershed education are available to print at www.onetruckeeriver.org/education/. Tools include a watershed map to display in your classroom, macroinvertebrate, plant, and wildlife identification guides specific to the Truckee River, and a searchable map with the distance from your classroom to the nearest waterbody so students can be outside learning!

Don't forget to celebrate our river, May is One Truckee River Month. One Truckee River will have many student contests and watershed education opportunities with our stakeholders. Make sure to stay in the loop!

are along the Truckee River and programs include several watershed lessons. (Grades: K-8)

Truckee Meadows Water Authority (TMWA)

www.tmwaacademy.com/teachers/lessons/index.shtml

TMWA Academy short animated videos and downloadable curricula, presentations and speakers are available to cover a variety of topics: smart water planning, responsible water use, water supply, our water system, and water quality. (Ages all)

Urban Roots

www.urgc.org/lesson-plans

Dedicated to growing healthy minds, bodies, and communities through education and service. They have camps, farm school, garden programs for schools, and downloadable curricula that address the watershed and water use on the Truckee. (All ages)

U.S. Fish and Wildlife Service (USFWS)

www.fws.gov/lahontannfhc/outreach.html

Tour the Lahontan National Fish Hatchery (open all year) and Marble Bluff Fish Passage and Research Station (open during spawning season, March-June), and create an outdoor classroom with the School Yard Habitat program. (All ages)

citizensciencetahoe.org/

Truckee River Guide

Interactive field guide and participatory mapping project to help local people learn about the species that live in and along the Truckee River; and to create a community-produced public record of wildlife and plant distribution along the Truckee River as it exists today. www.truckeeriverguide.org

Truckee River Snapshot Day

Annual picture of one moment in time of our watershed. Sign your class up to gain hands-on experience (perform a stream walk, collect field data, grab samples and take photos) and interact with water resource professionals. Sites are assigned to a sampling site near your school and buses can be provided. Data collected may be used for restoration projects and the to protect our watershed from further degradation. www.tahoetruckeesnapshotday.org

Truckee River Watershed Council (TRWC)

Aquatic Monitoring Lab gives you the skills and equipment you need to participate in important biology and chemistry monitoring through TRWC's Adopt-A-Stream program. www.truckeeriverwc.org/get-involved/adopt-a-stream/