



UPPER DESCHUTES
WATERSHED COUNCIL

EDUCATION PROGRAM

Connecting youth to the natural world by providing place-based education opportunities for children throughout Central Oregon



THE UPSTREAM PROJECT

The Upstream Project is a dynamic watershed education program that focuses on providing local K-12 students with hands-on stewardship experiences that inform and inspire streamside science, creative writing, and art projects. Seeking to educate and engage the next generation of watershed stewards, our education program has developed interdisciplinary activities and curricular materials that inspire students to connect to our rivers and streams and become active stewards. Our programs are Next Generation Science Standards-aligned and can be catered to your curricular needs. Whether out in the field or through a classroom visit, we look forward to supporting your students with our holistic watershed education program!



“Our students were able to explore Whychus Creek and learn about its history, challenges, and restoration opportunities. Thanks to the Upper Deschutes Watershed Council, students spent multiple days creating beautiful artwork and poetry to express their newfound sense of place and sense of stewardship for the creek!”

- Samra Spear, Sisters High School





THE UPSTREAM PROJECT PROGRAMS

1,000 DROPS

Learning objectives

Through hands-on science, math, reading, and creative writing activities, students will discover the water cycle as they trace the path of a water drop from the headwaters of the Deschutes River, Whychus Creek, Metolius River, Tumalo Creek, or the Little Deschutes River.

Timeframe and season

Half to full-day activities throughout the year.

STUDENT STEWARDSHIP PROJECTS

Learning objectives

Through research, project monitoring, writing, art, science, and interviews, students learn about local stream restoration projects. Students participate in their own stewardship project and might have an opportunity to present their watershed findings at Students Speak: A Watershed Summit in the spring.

Timeframe and season

Half to full-day activities. Multi-day field trips provide sequenced learning activities throughout the year.

HOMETOWN WATERS

Learning objectives

Students will participate in watershed science and hands-on learning activities as they explore the Tumalo watershed.

Timeframe and season

Half to full-day activities. Multi-day field trips provide sequenced learning activities throughout the year.

STUDENTS SPEAK: A WATERSHED SUMMIT

Learning objectives

Students of all ages are invited to present their stream stories, artwork, science projects, or music to their teachers, parents, and peers at Students Speak. Held annually in May, our watershed summit is a unique opportunity for students to take the stage to share their watershed projects in a professional forum.

Timeframe and season

May.



OUR NGSS-ALIGNED CURRICULUM

The Next Generation Science Standards (NGSS) are nationally recognized K-12 science content standards utilized by schools throughout Central Oregon and beyond. These standards communicate learning and performance expectations in regard to specific science content, and we align our watershed education curriculum to reflect these standards throughout each grade level.

KINDERGARTEN

Through hands-on activities that engage their awareness and stewardship of local waterways, students will observe patterns of what plants and animals need to survive, how these organisms can change the environment to meet their needs, and communicate solutions that will reduce the impact of humans on the land, water, and other living things. Activities include studying fish, insects, and plants in and around the stream.

Standards

K-LS1-1; K-ESS2-2; K-ESS3-1; K-ESS3-3

SECOND GRADE

Through hands-on activities that engage them in observation and stewardship of watershed ecosystems, students will observe various plants and animals to compare the diversity of life in different habitats, the distribution of water in Central Oregon, the structure of their watershed, and the effect of water on the land. Activities include studies of riparian plants, macroinvertebrates, healthy fish habitats, building a watershed, riparian studies, learning about healthy stream habitat features, and water cycle activities.

Standards

2-LS2-1; 2-LS2-2; 2-LS4-1

FIRST GRADE

Through hands-on activities that engage their awareness and stewardship of local waterways, students will observe that plants and animals have different structures which allow them to function and survive in different environments. Activities include studying fish, insects, and plants in and around the stream and observing how the design of these organisms helps their survival.

Standards

1-LS1-2; 1-LS3-1

THIRD GRADE

Through hands-on activities that engage them in observation and stewardship of watershed ecosystems, students will observe that organisms have different characteristics that allow them to survive in various habitats and that changes in the environment can impact the types of plants and animals that live there. Activities include macroinvertebrate studies, water quality testing, riparian transect studies, and lessons about healthy stream features and fish habitat.

Standards

3-LS4-3; 3-LS4-4; 3-LS3-2

FOURTH GRADE

Through hands-on activities that engage them in observation, critical thinking, and stewardship of watershed ecosystems, students will learn about the effects of humans on the watershed due to the need for water as a natural resource. Students will also construct an argument that plants and animals have structures that support survival, growth, and behavior, and observe and measure the effects of water and vegetation on the rate of erosion. Activities that highlight this are macroinvertebrate studies and sampling, water quality testing, riparian transect studies, lessons about healthy stream features and fish habitat, and water quality assessments.

Standards

4-ESS3-1; 4-LS1-1; 4-ESS2-1

MIDDLE SCHOOL

Through hands-on activities that engage students in observation, stewardship, critical thinking, and scientific design, students will learn about our local watershed by focusing on topics surrounding resource availability and extraction and its impacts, design solutions for maintaining biodiversity, the growth and development of aquatic organisms, the hydrologic cycle, and human impact on the environment. Activities that highlight this are macroinvertebrate and native fish studies, riparian transect studies, river restoration studies, water quality assessments, and lessons about healthy stream features and fish habitat.

Standards

MS-LS2-1; MS-LS2-4; MS-LS2-5; MS-LS1-5; MS-ESS2-4; MS-ESS3-3; MS-ESS3-4

FIFTH GRADE

Through hands-on activities that engage them in observation, critical thinking, and stewardship of watershed ecosystems, students will learn about the effects of humans on the watershed due to the need for water as a natural resource. Students will also have the opportunity to collect data to investigate a testable question using scientific inquiry. Activities that highlight this are macroinvertebrate studies, water quality testing, riparian transect studies, and lessons about healthy stream features and fish habitat.

Standards

5-LS1-1; 5-LS2-1; 5-ESS2-1; 5-ESS2-2; 5-ESS3-1

HIGH SCHOOL

Through hands-on activities that engage students in observation, stewardship, critical thinking, and scientific design, students will learn about our local watershed by focusing on topics surrounding factors impacting river ecosystems and biodiversity, design solutions to reduce the impacts of human activities on the environment, and hydrology studies. Activities that highlight this are macroinvertebrate and native fish studies, riparian transect studies, river restoration studies, water quality testing and assessments, lessons about healthy stream features and fish habitat, and hydrology studies that include building models of our watershed and streams.

Standards

HS-LS2-7; HS-LS4-6; HS-ESS2-5; HS-ESS3-4

SCHEDULE A PROGRAM WITH US TODAY.

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