# WATER EDUCATION For Grades K-5

Cascade Water Alliance offers fun, hands-on lessons for students to explore the fascinating world of water! All lessons are tailored to our region and are offered, free of charge, to schools within the water service areas of Cascade members.

#### AquaPals [Grades K-5]

Cascade Water Alliance and Nature Vision have developed the AquaPals program to facilitate student awareness on local water conservation practices. Classes may participate in AquaPals in one of two ways: as a one-time project day after an initial Cascade Water Alliance sponsored program or as a Blue Team series where the class receives multiple programs that culminate in a project day. If classes choose the one-time project day, they will design posters to highlight water saving methods and discourage water wasting habits with their entire school.

Contact us to learn more or register!

#### Salmon Cycle [Grades K-5]

Discover the connection between salmon, people, and the water we share. The salmon life cycle and what this keystone species requires from its ecosystem is discussed. Students will explore water quality issues and understand why healthy salmon habitat is good for Northwest ecosystems and people too!

# Water Cycles Round

#### [Grades 4-5]

Review the steps of the water cycle and pretend to be a water droplet. Travel to all the places water goes within the water cycle, including lakes, rivers, streams, mountains, the ocean, plants, animals, and you! Understand simple ways to conserve water at home.

## "Toadally" Amphibians [Grades K-4]

Students study these fascinating creatures who are dependent upon healthy water sources. Discuss the human influences that affect amphibian populations.

All programs can now be taught in small groups in person, remotely via video call, or in hybrid format with a shortened lesson and supplemental materials: <u>https://naturevision.org/cascade-water-alliance/#remotelearningprograms</u>

#### Watershed Ecosystems [Grades 2-5]

We all live in a watershed, and it is up to us to keep the water that flows through it clean and plentiful. We introduce students to their local watershed and to the plants and animals that share this important ecosystem with us. Students will also learn how a healthy environment cleans water naturally and gain insight on the impact of humans on this system. Positive human actions on the combined natural and human built environments are discussed.

# **Microplastics**

#### [Grades 3-5]

Plastics are a part of our everyday life that provide benefits and challenges to people. One of the biggest challenges is what happens to plastic when we no longer use it. This program explores how we use plastics, how they impact our water and environment, and what we can to prevent plastic pollution from entering our oceans.

### Water and Energy: What's the Connection? [Grades 3-5]

Did you know that when we use water, we also use energy? This program explores the connection between water and energy and what we can do to conserve both.



# Waterwise Gardening

#### [Grades 3-5]

Explore how water can be used efficiently in gardens and yards through hands-on activities and an interactive high-energy game. Students will discover how their actions at home and school can have a positive impact on the health of their watershed and water conservation.

## Watch the Flow Above and Below [Grades 4-5]

People need to use water wisely as it cycles through our human-built environment. Students will learn the basic infrastructure of how water flows from nature, through our cities and towns, and back again, and the impact of human behavior on water systems.



### Drip Irrigation [Grade 5]

Students will explore how drip irrigation systems can help us use water more efficiently in home and school gardens. Students will experience an example of systems thinking between natural cycles and human-built environments through interactive games and models.

## Water Supply [Grades 4-5]

Do you know where your drinking water comes from? Discover the path clean water takes; from its natural source all the way to your faucet! Students will explore the human and natural factors that affect our water supply and what actions they can take to keep this important natural resource pristine as our population grows.

### All About Groundwater [Grades 2-5]

Did you know that groundwater is an important water source for our local community? By using a watershed model, students will explore how groundwater is connected within our larger watershed systems, how our communities access groundwater, and what we can do to protect groundwater within the watershed.

# **Natural Filters**

#### [Grades 2-5]

We will conduct this class in your schoolyard. Learn how nature filters the water that flows through our ecosystem. Students will participate in a demonstration of how wetlands clean water.

# **Global Water Crisis**

#### [Grades 4-5]

Did you know 2.5 billion people worldwide don't have access to clean water and a toilet which leads to many life-threatening issues? Learn about the tough choices families need to make every day regarding water and how those choices affect their lives. Gain knowledge of how those of us with clean water can conserve it and ensure adequate water supplies for the future. Become aware of what is being done to end the global water crisis and design basic water systems inspired by real world projects that are helping communities around the world have access to safe drinking water and sanitation.

# Aquatic Insects Dip Field Experience [Grades K-5, Field]

Students visit a local accessible water site (pond, lake, or stream) and examine and identify aquatic insects based on which are water quality indicator species. Students may also participate in water quality tests for oxygen, pH, temperature and more. This program focuses on the importance of biodiversity within ecosystems and protecting watershed health.



### Watershed Field Experience [Grades K-5, Field]

Students will visit a local lake, wetland, or pond near their school and explore it with an Educator. Students will observe plants and animals in this environment, examine and identify local freshwater invertebrates, and will learn about the health of our greater watershed systems. Students may also participate in water quality tests for oxygen, pH, temperature, and more.



#### Wildfire in the West [Grades 3-5]

Did you know that fire is an important part of our environment? While it can be harmful, it's also important for maintaining a healthy ecosystem. We'll learn about the ways that fire can be helpful and what we can do to help keep human and natural communities safe.

# Bring Hands-on Science Lessons to Your Classroom!

#### Water Conservation [Grades 4-5]

Did you know that our area receives less rainfall in the summer months than Miami, Florida? Join us for an interactive lesson that will explore what our community can do to conserve our water indoors and outdoors. Students will learn why we need to save water and what every person can do to use water wisely to help keep more water in our local water bodies for wildlife and future generations.

## Carbon, Climate, and Conservation [Grades 3-5]

Climate change is a big issue that directly connects to human beings and has important impacts on our water systems. Students will learn about the Carbon Cycle, the connection between climate change and water conservation, and what we can do to help solve one of the most pressing issues of our time.

### Dealing with Drought [Grades 3-5]

All living things need water to survive, but what happens when we don't have enough? This class explores natural and human causes of drought, the impacts drought has on our environment, and what we can do to make sure people, plants, and animals have the water they need.

### Healthy Water, Healthy Soil [Grades K-3]

Dig in to healthy soil and discover the living creatures that benefit the soil and plants all around us. Touch and feel the different parts of soil and explore how healthy water keeps our soils in the Northwest healthy, too.

# Healthy Water, Healthy Soil [Grades 4-5]

Dig in to healthy soil and discover the living network of decomposers that benefit the ecosystems around us. Explore how healthy water keeps our Northwest soils healthy and understand how humans can impact soil through our interactions with water.



#### Blue Teams [Grades K-5]

Blue Teams are customized learning modules taught by a Nature Vision Educator. Each participating classroom completes a stewardship project that raises awareness of the importance of water. Projects may consist of native plant restoration that requires little water or other water conservation ideas. Blue Teams require a commitment of four to six hours to complete the classroom programs and stewardship project.

## Community Science [Grades 3-5]

Nature Vision provides students with the tools and skills to collect water quality data and assist with scientific research in their communities. These classes can be scheduled either as a 3-part program or as part of a longer 'Blue Team' project.

# To schedule a program or field trip, visit <u>naturevision.org/program-registration</u>

If you have any questions regarding Cascade Water Alliance, please contact Mike Brent, Water Resources Manager, at: (425) 453-1810