



EXPLORING THE WATER WORLD

# Education Programs

 Regional **Water** Authority  
Tapping the Possibilities™

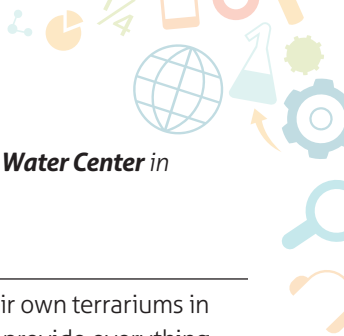
## GENERAL INFORMATION

Water is one of our most precious — and endangered — natural resources. That's why we offer environmental education programs to show people, especially kids, how their actions can affect the quality of the region's water resources. Using engaging hands-on activities and experiments, we teach some science and have some fun!

Teaching people about water science is one of our most important jobs for the future; it is one way we work with consumers to prevent pollution of our region's drinking water. By preventing contamination of the water, we protect public health and avoid the cost of cleaning up the environment.

Our mission is to create an educated constituency for clean water by increasing public understanding of how we define water quality, how we are preserving it and how we are working to improve it. By presenting programs that stress enjoyable, hands-on learning, we hope to create "informed consumers" who see the relationship between human activities and ecological impacts, enabling them to make intelligent decisions regarding the future of our environment.

The Regional Water Authority offers a wide variety of science programs that we bring right to your classroom. Or you can borrow a Water Science Loan Box, self-contained teaching units that include everything you need to teach about an exciting water science topic — all you provide are the water and enthusiasm!



## ONSITE PROGRAMS

The following two programs are only offered at the **Whitney Water Center** in Hamden for grades 4 through 6.

### RETURNING RAINDROP

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Your students will explore the water cycle by building their own terrariums in clear two-liter soda bottles. You provide the bottles; we'll provide everything else. Students need prior knowledge of the water cycle.

### MAGIC OF MICROSCOPY

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What are some of the smallest things that live in the Mill River? Your students will learn the basic parts of a microscope and look at and identify some of the smallest plants and animals in the food chain. Based on their findings, they will try to determine if the water is healthy.

## OUTREACH PROGRAMS

Invite the Whitney Water Center into your classroom for some fun, learning and science! Our programs are approximately one hour in length.

### DISTRIBUTION SOLUTION

**Grade K & 1**

How does water get to a house or a business? Students will find out by building a model of a distribution system.

### WATER IN MY COMMUNITY

**Grade K & 1**

How is water used in your community? In this program, students will see how important water is to everyone in a community.

### ESTIMATION & EXPERIMENTATION

**Grade 1 & Up**

Students will make estimates and then conduct experiments to see if the estimates are accurate. Some of the predictions students will make include how many marbles will make a cup of water overflow and how many marbles will sink a boat.

### OOZING OOBLECK

**Grade 2 & Up**

After reading *Bartholomew and the Oobleck* by Dr. Seuss, your students will explore the properties of different liquids and whether those properties change when the materials are combined to make oobleck.

## THE WATER CYCLE

Grade 2 & Up

Water moves all around the earth through an interconnected web. Students will learn about the different states of water and how water transitions from one part of the water cycle to another.

## PROBLEM WITH POLLUTION

Grade 3 & Up

Students will learn about different ways that pollution can enter the environment and why it can be so hard to keep out of our waters.

## WISE WATER WAYS

Grade 3 & Up

Students will learn how much water a dripping faucet can waste every day and easy ways to conserve water at home and at school.

## INVASION OF THE ALIENS

Grade 4 & Up

What are invasive alien species, and why should we care about them? Using zebra mussels and purple loosestrife as examples, your students will learn about the problems that invasive, non-native species can cause.

## MACROINVERTEBRATE MESSAGES

Grade 4 & Up

Benthic macroinvertebrates are small critters that live on the bottom of a stream. Your students will find out how scientists use macroinvertebrates to assess the health and water quality of a stream.

## WATERSHEDS

Grade 6 & Up

Do your students think a watershed is a building to store water? In this class, they will learn about watersheds through hands-on activities and maps, and explore the effects our activities can have on our drinking water.





## LOAN BOXES

*Enjoy the convenience of pickup and delivery of Water Science Loan Boxes to your school! Each one of our loan boxes covers a unique topic and contains everything you need for learning about water in your classroom. Choose to do one activity as a supplement to your curriculum or do all of the activities and have a water-themed science week. Borrow a loan box and your students will learn science is FUN.*

### COMMUNITY CONNECTIONS

**Grade K & Up**

How important is water to us? How does water get to your house and school? Who needs water to do their jobs every day? These are just a few questions students will be able to answer as they learn about how we all use water.

### WONDERING ABOUT WEATHER

**Grade K & Up**

What makes the weather? Your students will experiment with the different weather makers and learn how the weather makers interact to create our weather.

### WATERWORKS

**Grade K & Up**

Are you drinking the same water that fell as rain when dinosaurs walked the earth? Where does rain come from? Your students will learn the answers to these questions and more as they explore the water cycle.

### LIQUID ASSETS

**Grade K & Up**

Students will make predictions about where in a jar liquid and frozen water will be when the jar is tilted and see that liquids take the shape of their container. Students will also observe the shape of a small amount of water when there is no container and demonstrate some properties of different liquids.

### WHO SANK THE BOAT?

**Grade K & Up**

Explore density and buoyancy with a range of fun activities including "Who Sank the Boat?" and "Will It Float?"

### WATER WIZARDS

**Grade K & Up**

Students will investigate the unique properties of water by seeing how many drops of water fit on the head of a penny and floating a paper clip on the surface tension of water.

## OOZING OOBLECK

Grade 2 & Up

After reading *Bartholomew and the Oobleck* by Dr. Seuss, your students will explore the properties of different liquids and whether those properties change when the materials are combined to make oobleck.

## WATER WIZARDS II

Grade 2 & Up

Your students will investigate some of the properties of water by experimenting with cohesion, adhesion and surface tension.

## THE WATER CYCLE

Grade 2 & Up

Water moves all around the earth through an interconnected web. Students will learn about the different states of water and how water transitions from one part of the water cycle to another.

## WISE WATER WAYS

Grade 3 & Up

Drought generally is not an issue in Connecticut, but it can be if we don't get enough rain or snow. This program will introduce your students to the concept of water conservation and some ways they can use water wisely all the time.

## A WET HISTORY OF NEW HAVEN

Grade 3 & Up

Why did the early colonists in south central Connecticut choose this area as a place to settle? What influence did access to and uses of water have on people? Using hands-on activities and historical photographs and documents, your students will learn the wet history of New Haven.

## HABITATS OF LONG ISLAND SOUND

Grade 3 & Up

Imagine if your home was covered with water twice a day or all the time! Students will learn about the unique habitats of Long Island Sound and the living things that make their homes there.

## WEATHER OR NOT

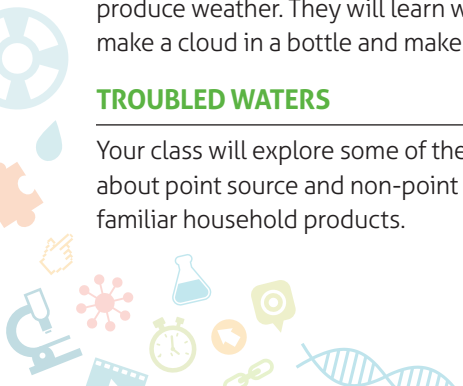
Grade 4 & Up

Your students will learn about the four weather makers and how they interact to produce weather. They will learn why the air temperature is colder in the winter, make a cloud in a bottle and make simple weather instruments.

## TROUBLED WATERS

Grade 4 & Up

Your class will explore some of the common avenues of water pollution, learn about point source and non-point source pollution, and test the pH of some familiar household products.





## **WATERSHEDS**

**Grade 4 & Up**

Build a model watershed and experiment with it to see how a body of water can become polluted from activities that happen on the land.

## **POLAR OPPOSITES**

**Grade 4 & Up**

What shape does a water drop have? Can water be stretched? Students will be amazed when they learn about the water molecule and surface tension.

## **INVASION OF THE ALIENS**

**Grade 4 & Up**

What are invasive alien species, and why should we care about them? Using zebra mussels and purple loosestrife as examples, your students will learn about the problems that invasive species can cause.

## **DISCOVERING DENSITY**

**Grade 6 & Up**

Explore the principles of density and buoyancy with a range of fun, mentally challenging activities.

## **FROM THE GROUND UP**

**Grade 6 & Up**

Students will learn about the basic principles of groundwater and its movement through the soil.

## **REGISTERING FOR A PROGRAM**

To register for any of our education programs, or if you would like more information, please send us an email at [ldifrancesco@rwater.com](mailto:ldifrancesco@rwater.com). You can also call the Whitney Water Center, Monday through Friday, at 203-777-1142.

All programs are approximately one hour in length. Many classes are suitable for a wide range of grades. Our staff will present an age-appropriate version of the program for your students. Maximum class size is 30 students.

You can reserve a Water Science Loan Box by calling the Water Center, by calling 203-777-1142 or by e-mailing [ldifrancesco@rwater.com](mailto:ldifrancesco@rwater.com).

All programs and loan boxes are FREE of charge for students from Ansonia, Beacon Falls, Bethany, Branford, Cheshire, Derby, East Haven, Guilford, Hamden, Killingworth, Madison, Milford, New Haven, North Branford, North Haven, Orange, Prospect, Regional District #16, Regional District #17, Seymour, West Haven and Woodbridge.



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