

BEFORE YOU VISIT

These discussion questions and activities are designed to spark your students' interest in the exhibition and to prepare them for the concepts they'll encounter. You may wish to review the material prepared for other grade levels as well, and adapt them for your class.

Discussion

To start your students thinking about what they'll encounter in the exhibition, ask one or more of the following questions:

- What are some activities, such as sports and games, that are possible because of water?
- How have you used water this week? What would your day be like if you lived in a home without running water?
- In what ways does life depend on water? What are some of the things that would happen if the water supply diminished?
- How do industry and agriculture depend on water?
- Where on Earth is water found? What about fresh water?
- How does water move? How does it change? How does it affect the land?
- Where does the water that we use at school and at home come from? Where does it go after we're done with it?
- Is clean water a human right? Who owns our water?
- Why is it important not to waste water?

Activities

What Does Water Weigh?

Objective: To experience the weight of water and consider its importance in daily life

Procedure:

1. Fill several gallon-sized milk containers with water and pass them around the room. Make sure the tops are sealed tightly.
2. Ask students to guess how much a gallon of water weighs. Then reveal the answer: a gallon of water weighs approximately 8.34 pounds.
3. Brainstorm a list of ways we use water each day with your students.
4. Tell students that in some parts of the world, water needs to be carried home from sources that are often several miles away. People, typically women and girls, may make multiple trips in order to provide enough water for entire families.
5. The average amount of water a New York City resident uses in the home every day is about 60 to 70 gallons. Ask students how their own habits might change if they had to carry home the gallons of water they use every day.

How Much Water Do We Use?

Objective: To visualize daily water consumption

Procedure:

1. Have a student brush, or pretend to brush, his or her teeth for two minutes, first with the water running and then with the tap or keg turned off between rinses.
2. Collect, measure, and compare the water used during the two experiments.

You and your students can visit the **H₂O Conserve** website at H2Oconserve.org to calculate your water use and learn how to conserve this valuable resource.

NEW YORK CITY SCOPE & SEQUENCE

Your visit to the *Water: H₂O = Life* exhibition can support the teaching of the following units.

Grade 5

- Unit 3: Food and Nutrition
- Unit 4: Exploring Ecosystems

Grade 6

- Unit 2: Weather
- Unit 4: Interdependence

Grade 7

- Unit 1: Geology
- Unit 2: Interactions Between Matter and Energy

Grade 8

- Unit 2: Humans and Their Environment: Needs and Tradeoffs
- Unit 3: Earth, Sun, Moon System

Visit amnh.org/education/water for a full listing of relevant:

- National Science Education Standards
- New York State Science Core Curriculum Standards
- New York City Scope & Sequence
- National Curriculum Standards for Social Studies
- New York City Mathematics Standards

WATER: H₂O = Life Student Worksheet

1. Explore Animals and Adaptations

Pick three animals from the entire exhibition. (They can be live animals, specimens, or models.) Mark where they live on the map. For each animal, describe [A] its habitat, [B] the physical characteristics that help it adapt to its environment, and [C] other organisms that compete for water in the same ecosystem.



Animal: _____

[A] Habitat: _____

[B] Physical Characteristics: _____

[C] Competing Organisms: _____

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2. Explore Global Water Problems & Solutions

The exhibition tells stories of how people around the world use water. Read about local stories from the **Water Works**, **Not a Drop**, and **Water Everywhere** areas of the exhibit.

Describe an example of how technology helps people use water efficiently.

Describe an example in a different part of the world where technology has had a negative effect.

3. For Further Exploration

As you walk through the exhibition, think of things about water that make you curious. On the back of this sheet, write down five or more questions you have about water.