

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 do you use water? Where do you use it?
- What would your day be like if you lived in a house without running water?
- Who or what uses water on our planet?
- Where on Earth do we find water? What about fresh water?
- Where does water go when it evaporates? What role does the Sun play in this process? Where does rainwater come from? How do clouds form?
- Would you drink water out of a puddle? Why or why not?
- Where do you find dirty water in your home? Clean water?
- Why is it important not to waste water?

Activities

Fresh Water vs. Salt Water

Objective: To demonstrate that fresh water is a limited resource

Procedure:

1. Using a world globe or map, discuss the differences between fresh water and salt water, where each is found, and their uses.
2. Fill a one-gallon container with water. Have students imagine that this container represents all of Earth's water. Ask how much of it would be fresh water.
3. Pour about a half-cup of water into a glass. Explain that this water represents all the fresh water on Earth. About two-thirds of it is locked in icecaps and glaciers, and less than one-third of it (about 2.5 tablespoons) is liquid fresh water available for use. Point out that what remains in the container represents the 97% of the world's water, which is found in the oceans.

Water Cycle

Objective: To review the three phases of water

Procedure:

1. Review the water cycle with students. Hand out ice cubes and cups of water and ask students to make observations of how they differ. Then, to demonstrate the third phase, heat the ice cubes in a pot or electric kettle until the water boils and steam can be observed.
2. Ask students to list where they encounter these different phases of water, both inside and outdoors.

You can visit the **US Geological Survey** website at ga.water.usgs.gov/edu/watercycle.html to download a colorful water cycle diagram in over 50 languages.

NEW YORK CITY SCOPE & SEQUENCE

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

Kindergarten

- Unit 1: Exploring Properties
- Unit 4: Trees Through the Seasons
- Unit 3: Animals

Grade 1

- Unit 1: Properties of Matter

Grade 2

- Unit 2: Earth Materials
- Unit 3: Plant Diversity

Grade 3

- Unit 1: Matter
- Unit 4: Plant and Animal Adaptations

Grade 4

- Unit 1: Animals and Plants and Their Environment
- Unit 3: Properties of Water: What Makes Water So Special?
- Unit 4: Interactions of Air, Water, and Land

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

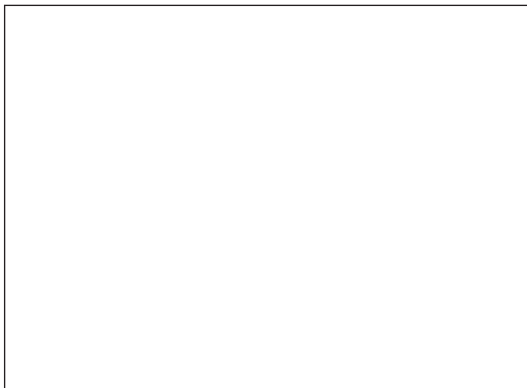
Pick two animals from the exhibition and draw them. (They can be live animals, specimens, or models.)



Animal: _____

Describe where it lives: _____

How does it use water? What adaptations help it survive?



Animal: _____

Describe where it lives: _____

How does it use water? What adaptations help it survive?

2. Explore the Water Cycle

Go to the **Blue Planet** area of the exhibit. Then find the **water cycle sculpture**. This model shows three forms of water. Use your senses to describe water as a solid, a liquid, and a vapor.

Solid: _____ Liquid: _____ Vapor: _____

What activities in our lives are possible because of water, in solid, liquid, and vapor form?

Solid: _____ Liquid: _____ Vapor: _____

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.