

# STUDENT GUIDE

# water stories

GULP #034 (detail), 2007, Daniel Wheeler, photograph.

## fun facts

- Because the water cycle is a closed system, water from millions of years ago is still here! The water in your sink could have been sipped by dinosaurs!
- Much of Earth's water arrived here from meteors hitting the earth over billions of years.
- Of all the water on Earth, less than 1% is considered drinkable.

## when you visit

- For your safety and the safety of your classmates and the art, please keep your hands to yourself.
- Walk, do not run, in the museum.
- Please do not touch, unless you are told you may.
- Use your indoor voice.
- Stay with your group.
- Follow any extra instructions the museum teacher and chaperone give you.

Terje Isungset with ice trumpet; photo by Bjørn Furuseth.



## OPEN EYES AND OPEN MINDS

Have you ever been to a museum before? Museums are places that protect special objects that remind us about what is important. They tell us stories about who we are, how we think and where we come from.

When you visit the Peabody Essex Museum with your class, you will be exploring with a museum teacher. He or she will help you look at the artworks carefully. Looking at art from other places can inspire new ideas for your own art! Sketching or drawing important parts of an artwork can also help you notice and remember things.

We look forward to seeing you at the museum! We love hearing your questions and your ideas, so bring your eyes and brains along, ready to make great observations about what you see.

## THREE STATES, ENDLESS POSSIBILITIES

Your class will be exploring *Ripple Effect, The Art of H<sub>2</sub>O* the three states of water and different ways artists portray this unique substance. You will get a chance to hear amazing ice instruments, make water shadows dance on the wall and run your fingers through wispy clouds! In the museum galleries, you will travel along the water cycle and around the world through art.

Ripple Effect, The Art of H<sub>2</sub>O  
Through June 2012

**P | E | M** Peabody  
Essex  
Museum

East India Square | Salem, MA 01970 USA | 978-745-9500 | pem.org



**FOR TEACHERS**

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*GULP #034 (detail), 2007, Daniel Wheeler, photograph.*

## activity

Have students read the poem below as a lead-in to talking about different ways to write about water. Then take students outside to a local water source. Using cameras or sketch pads, have them capture what they see. Later, reflect on what students recall from the nature walk and have them write responses to their photos. What words do they choose to describe the characteristics of water?

## FROZEN WATER by Raymond A. Foss

*The camera caught the water  
froze it at a moment of time  
preserved as drops, bits of eternity  
etched right there  
on the square of film  
seeing what the human eye cannot see  
the beauty in the pauses between  
the rushing water  
over rock and falls  
broken into tiny droplets  
saved and framed on my wall*

*Splashing Drop (detail), 1997, Walter Wick, photograph.*



## TALK ABOUT YOUR UPCOMING VISIT

Have any of the students been to a museum before? Have they been to this one? What are the right ways to behave in a museum, and why do we have those rules? (Hands to yourself, no running, stay with your group, use appropriate volume, etc.) If you are participating in one of the guided school programs, your students will have the opportunity to sketch in the galleries. We recommend sketching on self-guided visits, too, to encourage close looking at objects and to serve as a memory aid for reflection after your visit.

## PRACTICE LOOKING AT AND ASKING QUESTIONS ABOUT ART

Use images from pem.org, books, posters or other museums. How do diverse cultures portray different forms of water in art? Compare and contrast a peaceful landscape with a stormy one. What details of color, line and style affect the mood? Have students practice thinking about the deeper meanings in art, and remember to remind them that there are no wrong answers when interpreting art. Encourage students to create their own artwork using ideas and methods they have observed in other artworks.

## WHY IS WATER IMPORTANT?

Brainstorm the ways in which water impacts your students' lives. It is the liquid that keeps us alive, the solid that gives us snow days and ice rinks, and the gas that surrounds us (as humidity) in the air we breathe. To truly appreciate the impact that water has, ask students to imagine what Earth would be like without water.

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## USEFUL VOCABULARY

Use these words in class discussion, on bulletin boards and in activities

**BALANCE:** The ways in which the elements (lines, shapes, colors, textures, etc.) of an artwork are arranged. This may or may not be symmetrical, but all the pieces work together to create a whole.

**CLIMATE:** The average weather conditions in an area (air temperature, air pressure, humidity, precipitation, cloudiness), taken over an extended period of time.

**CONDENSATION:** The process in which water as a gas changes to liquid water, such as dew forming on grass overnight.

**CONTEMPORARY ART:** Works of art made by living artists.

**EVAPORATION:** The process in which liquid water changes to water vapor (gas), such as puddles drying up in the sun.

**FREEZING:** The process in which liquid water changes to a solid due to cold temperature, such as dripping water hardening into icicles.

**INSPIRATION:** A feeling that makes you want to try something new or different (art, music, writing, etc.).

**MEDIUM:** The materials and tools an artist uses to create art.

**MELTING:** The change from solid water to liquid water. On a warm day, a snowman will melt into a puddle of water.

**PRECIPITATION:** The result of water vapor condensing in the atmosphere. Some types of precipitation are rain, snow and sleet.

**REPRESENTATION:** Any image that captures the appearance of something bigger and more complex (a map is a representation of the planet).

**RESERVOIR:** A natural or man-made place where liquid water is collected and stored for human use. Reservoirs supply our communities with fresh water.

**SCALE:** Whether something seems bigger or smaller than something else, or bigger or smaller than you expect it to be. Scale can refer to an entire work of art or to elements within it.

**SYMBOL:** Something that stands for or suggests something else. Often this is something concrete (a flower, a rock, a ring) that is used to stand for an idea (luck, long life, love).

**THE WATER CYCLE:** The natural sequence through which water moves around the world in the atmosphere, on the planet's surface and under the surface. This cycle accounts for the constant changes between the three states of water.

**WEATHER:** The state of the atmosphere over a short period of time. Weather includes wind, temperature, precipitation, cloudiness, etc. We can watch or read daily weather reports to learn about weather predictions for our area.



*Water Sculpture #9, 2010, Shinichi Maruyama, photograph.*

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## RECOMMENDED READING AND RESOURCES

Below are just a few suggestions to get you started on your *Ripple Effect* exploration! Some books may be more or less appropriate, depending on the age of your students. Even books that are “young” for your students may serve as an entertaining way to introduce a topic or to engage students in a conversation.

### GENERAL BOOKS ABOUT WATER

*One Well: The Story of Water on Earth*, by Rochelle Strauss  
*A Drop of Water: A Book of Science and Wonder*, by Walter Wick  
*A Drop Around the World*, by Barbara McKinney  
*The Wonders of Water*, by Melissa Stewart

### BOOKS SHOWING EVENTS IN THE WATER CYCLE

*Bringing the Rain to Kapiti Plain*, by Verna Aardema  
*Come On, Rain*, by Karen Hesse  
*Water Dance*, by Thomas Locker  
*The Secret Life of a Snowflake*, by Kenneth Libbrecht

### BOOKS ABOUT BODIES OF WATER

*Across the Stream*, by Mirra Ginsburg  
*Hello, Ocean*, by Pam Munoz Ryan  
*In the Small, Small, Pond* by Denise Fleming  
*The Water Hole*, by Graeme Base

### ONLINE RESOURCES

**Massachusetts Water Resource Authority**  
[www.mwra.state.ma.us/04water/html/watsys.htm](http://www.mwra.state.ma.us/04water/html/watsys.htm)

**USGS Water Science for Schools**  
[ga.water.usgs.gov/edu/](http://ga.water.usgs.gov/edu/)

**EPA Environmental Kids Club — Water**  
[www.epa.gov/kids/water.htm](http://www.epa.gov/kids/water.htm)

**Water Cycle — Animated Diagram**  
[earthguide.ucsd.edu/earthguide/diagrams/watercycle/](http://earthguide.ucsd.edu/earthguide/diagrams/watercycle/)

**The Weather Channel Kids — Interactive Weather for Kids**  
[www.theweatherchannelkids.com/](http://www.theweatherchannelkids.com/)

### RIPPLE EFFECT FEATURED ARTISTS

Joan Brigham, MA	<a href="http://www.joanbrigham.com">www.joanbrigham.com</a>
Simon Christen, CA	<a href="http://www.simonschristen.com">www.simonschristen.com</a>
Jim Denevan, CA	<a href="http://www.jimdenevan.com">www.jimdenevan.com</a>
Christine Destrempe, NH	<a href="http://www.destrempe.com">www.destrempe.com</a>
Janet Fredericks, VT	<a href="http://www.janetfredericks.com">www.janetfredericks.com</a>
Georgie Friedman, MA	<a href="http://www.georgiefriedman.com">www.georgiefriedman.com</a>
Mags Harries, MA	<a href="http://www.harriesheder.com">www.harriesheder.com</a>
Lajos Heder, MA	<a href="http://www.harriesheder.com">www.harriesheder.com</a>
Terje Isungset, Norway	<a href="http://www.icemusic.no">www.icemusic.no</a>
Ned Kahn, CA	<a href="http://www.nedkahn.com">www.nedkahn.com</a>
Cornelia Kubler Kavanagh, CT	<a href="http://www.corneliakavanagh.com">www.corneliakavanagh.com</a>
Shinichi Maruyama, NY	<a href="http://www.shinichimaruyama.com">www.shinichimaruyama.com</a>
Warren Mather, MA	<a href="http://www.warrenmather.com">www.warrenmather.com</a>
Peter Wasilewski, MD	<a href="http://www.frizion.com">www.frizion.com</a>
Daniel Wheeler, CA	<a href="http://www.bigobjects.com">www.bigobjects.com</a>
Walter Wick, CT	<a href="http://www.walterwick.com">www.walterwick.com</a>



*Serac Moulin*, 2008,  
Cornelia Kubler Kavanagh.

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## REFLECTING ON YOUR VISIT

**What do your students remember? What inspired them?**

## LETTER WRITING

Have students practice language arts skills and write a letter to the museum or a story about their favorite part of the visit. Let students share their stories with the class. Then send their stories to us!

## WATER AS ART

Give students the opportunity to create art inspired by water in everyday life. Encourage students to depict water in each of its three states, using a variety of materials (collage, paint, torn paper, photography, etc.) Students may compile all their artwork in a journal or sketchbook, as did *Ripple Effect* artist Janet Fredericks.

## FOCUS ON ARTISTS

Have your students work individually or in small groups to research one of the artists featured in *Ripple Effect* (see resources page). Have them explore the statements, galleries and biographies of their chosen artist. What inspires this artist? What materials does he or she use, and does the artist concentrate in one form or dabble in many? What do the students like best or wonder about this artist? Students may then submit a written report or present their findings to the class.

## INTERDISCIPLINARY CONNECTIONS

### LITERATURE

***Water and Words*** — Reflect on some of the books and poems students have read in class. How does water play a major role in these stories? Is water always portrayed as something good? When is it harmful to the characters? Look at the descriptive adjectives that authors use to describe water, and talk about how each word makes students feel. Give students the opportunity to write their own stories and poems about water and discuss how word choice is important in setting the mood of a story.

***Escaping the Giant Wave*** — Tie coverage of current world events into a study of *Escaping the Giant Wave* by Peg Kehret. Thirteen-year-old Kyle and his family are vacationing in Oregon when a tsunami hits. Kyle's experiences with the tsunami and its aftermath change the way he thinks about himself and how he relates to the world around him. Discuss with your class the idea of humans challenged by their environment, and how each shapes and changes the other. You may wish to pair this book with other survival stories or historical narratives such as the story of Ernest Shackleton.

### MUSIC

***The Music of Water*** — What does it sound like to drop water into an empty bucket? How about a full bucket? What does a rainstorm sound like? Use these sounds to inspire students to make water music. How can you re-create the sounds of water with basic instruments? Fill a paper towel roll with beads or beans, and then cover the ends to make a rainstick. Students can decorate the tubes with water-inspired designs. When they're done, perform a water composition.

***Sound Waves*** — Listen to classical music inspired by water (Handel, etc.) and then explore more modern music that uses water as a theme. How many different songs can students think of? What techniques do musicians use to represent water? Are some instruments better than others? In what ways?

### HISTORY/GEOGRAPHY

***Water as a Facilitator of Trade*** — As your students study U.S. history and Colonial Massachusetts, discuss the ways that water influenced the growing economy. How did maritime commerce affect local port cities? What resources could be harvested from the oceans? As a class, talk about this important time in American history by comparing port cities like Salem and Boston with landlocked cities. Learn what it was like to work on an 18th-century trading vessel by reading books like *Carry On, Mr. Bowditch*. You may wish to pair this tour with another PEM program, such as *At Home in Salem* or *The Global Trade*.

***Water in the Ancient World*** — Have your students look at maps and drawings that depict ancient empires around the world. What do these cities all have in common in relation to water? Talk about certain water features (rivers, harbors, lakes, irrigation, etc.) and the different ways they could aid a growing city. Have students design their own city, choosing what type of water resources they'll need and how they will use them.

### SCIENCE

***Head in the Clouds*** — Look up local weather forecasts. Chart precipitation levels and temperatures. What instruments do we use to study weather? Have your students brainstorm and make some simple weather measuring tools. Compare your data to local climate logs from your community and from around the world. What factors cause droughts or make other areas get rain?

***A Cycle to Remember*** — What parts of the water cycle do we see every day? Divide students into groups that represent different parts of the cycle, to research their role in the movement of water, and then contribute their knowledge to a class mural or a class play. What happens when there is too much water, or not enough? Connect this with a study of geography and habitats.

***Water and You*** — We often take for granted the water that comes out of our faucets, showerheads and sprinklers. Where does our water come from, and where does it go when we're done with it? Log onto the Massachusetts Water Resource Authority website to learn more about our local water supply (see resources page). Draw a map of water's travel to your home, and then to the sewage treatment plant. What treatments does drinking water go through? Talk about the water supply as a shrinking resource, and brainstorm ways each of us can conserve water.

# CHAPERONES

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## Thank you for agreeing to be a chaperone on this field trip to the Peabody Essex Museum!

We are glad you will have the opportunity to explore with your group and share your own enthusiasm with the students. Here are a few guidelines to help make the visit more pleasant for everyone when you are in the museum:

- Please stay with students who have been assigned to you. The museum requires that students stay with their adult chaperones, regardless of the age of the student. This rule also includes our restrooms and the Museum Shop (**Please note: only one group of students is allowed in the shop at a time**).
- Chaperones are responsible for the proper behavior of their group and for keeping track of each student in their group.
- Learn the names and faces of the students in your group; make sure they know your name, too.
- If your class is splitting up, make sure you know when and where you will be rejoining the other groups.
- The theme of this visit is *Water Stories*. Students will tour the interactive Art & Nature Center and other art galleries, engage in looking closely at specific art objects under the leadership of a museum teacher and sketch those objects. They will also work collaboratively to identify artworks relating to the theme of water in art. The program will end with a discussion in the final gallery or with a studio art component, depending on the teacher's selection.
- The process of inquiry and discovery is very important to developing students' skills of observation and critical thinking. Please take the opportunity to help draw out students' thoughts through questions such as the ones we have suggested below, rather than providing answers.
- Most of all, remember to have fun during your visit! Thank you again, and we look forward to seeing you at PEM!

### A BRIEF REMINDER OF MUSEUM BEHAVIOR FOR STUDENTS

For your safety and the safety of your friends and the art, please keep your hands to yourself

Walk, do not run, in the museum

Please do not touch unless you are told you may

Use indoor voices

Stay with your group

Sketch on notebooks or clipboards, not cases or walls.

Follow any extra rules the museum teacher gives you

### At the museum

Here are some questions to help your group observe and reflect on their museum visit:

What is this artwork about? How can you tell?

What materials did the artist use?

How does it make you feel?

Can you describe why it makes you feel that way?

What colors, shapes and patterns did the artist use?

What else does this remind you of?

What words would you use to describe this artwork?

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