



Why Is Water Important?

Pre-assessment from *The Science of Water Teacher's Guide* and for *Mystery of the Muddled Marsh*

Written by

Nancy P. Moreno, Ph.D.

Barbara Z. Tharp, M.S.

Judith H. Dresden, M.S.

BioEdSM

Teacher Resources from the
Center for Educational Outreach at
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The activities described in this book are intended for school-age children under direct supervision of adults. The authors and Baylor College of Medicine cannot be responsible for any accidents or injuries that may result from conduct of the activities, from not specifically following directions, or from ignoring cautions contained in the text.

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Authors: Nancy P. Moreno, Ph.D., Barbara Z. Tharp, M.S., and Judith H. Dresden, M.S.
Editors: James P. Denk, M.A., and Paula H. Cutler, B.S.
Designer: Martha S. Young, B.F.A.

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Center for Educational Outreach
Baylor College of Medicine
One Baylor Plaza, BCM411
Houston, Texas 77030
713-798-8200 | 800-798-8244 | edoutreach@bcm.edu
www.bcm.edu/edoutreach | www.bioedonline.org | www.k8science.org

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Why Is Water Important?



Pre-assessment

Human beings are about 67% water. In fact, every living organism, whether composed of one cell or many millions of cells, contains water. Water is needed to transport nutrients and oxygen throughout living organisms and to carry out waste. Water also is vital for cooking, cleaning, growing crops, raising animals, transportation, production of electricity and manufacturing. Without water we would not only be unhealthy, we would not be alive.



SETUP

Have students work individually to complete the pre-assessment.

PROCEDURE

1. Ask students, *Why is water important?* Have students devise and write down reasons why water is important in their science lab journals/notebooks. Tell students they may add to their lists as they complete the unit.
2. Explain to students that they will complete a pre-assessment to see what they already know about water.
3. Have students complete the pre-assessments individually; then collect and save the sheets. You should have students refer back to their pre-assessment answers at the conclusion of this unit to make any corrections based on the knowledge gained in the unit. This can be used as one component of the post-assessment activity (see Variations below).

VARIATIONS

Refer to “The Science of Water: Post-assessment” instructions and have students prepare drawings and write about (depending on grade level) four of the most important aspects of water for health as a pre-assessment. Then, revisit the drawings at the end of the unit and have students expand their previous drawings or make new drawings to express what they have learned.

CONCEPTS

Allows teacher to estimate prior knowledge and misconceptions of students related to the role of water in their world.

OVERVIEW

Pre-assessment designed to use with students before beginning the unit. Can be revisited as part of Post-assessment.

SCIENCE, HEALTH & MATH SKILLS

- Asking questions
- Communicating

TIME

Preparation: 5 minutes

Class: 30–45 minutes

MATERIALS

Each student will need:

- Colored markers, pencils or pens
- Copy of “What Do You Know About Water?” page

IMAGE CITATIONS

Source URLs are available at the front of this guide.

PRE-ASSESSMENT ANSWER KEY

- | | |
|------|-------|
| 1. c | 6. b |
| 2. a | 7. c |
| 3. b | 8. d |
| 4. d | 9. a |
| 5. a | 10. b |



What Do You Know About Water?

Name _____

Please circle the letter beside the correct answer to each question below.

- What makes water special?
 - Dinosaurs drank it.
 - It is clear.
 - All living things need it.
 - It evaporates.
- Why are water drops round?
 - Water likes to stick together.
 - Water is slippery.
 - Water is the same as oil.
 - Water is wet.
- Which of these is made mostly of water?
 - Brick
 - Orange
 - Peanut
 - Sweater
- Which of these substances will dissolve in water?
 - Wood
 - Sand
 - Flour
 - Sugar
- You might use which one of the following methods to investigate a mystery liquid?
 - Chromatography
 - Point source pollution
 - Condensation
 - Dissolving
- What happens if too much fertilizer gets into a pond?
 - Nothing
 - Fish get sick.
 - Fish get too big.
 - The pond floods.
- Where is most water absorbed into the rest of the body?
 - Mouth
 - Small intestine
 - Large intestine
 - Stomach
- How much water should a person drink in one day?
 - 2 glasses
 - 4 glasses
 - 6 glasses
 - 8 glasses
- Which of the following can cause water pollution?
 - Lawn chemicals
 - Groundwater
 - Carbon dioxide
 - Native plants
- Which process is part of the water cycle?
 - Sedimentation
 - Condensation
 - Transportation
 - Aviation

¿Cuanto sabes de agua?



Nombre _____

Haz un círculo alrededor de la letra de la respuesta correcta.

- ¿Porque es especial el agua?
 - Lo bebieron los dinosaurios.
 - Es transparente.
 - Todos los seres vivientes lo necesitan.
 - Se evapora.
- ¿Porque son redondas las gotas de agua?
 - Les gusta estar pegadas unas a las otras.
 - Son resbalosas.
 - Son idénticas al aceite.
 - Son húmedas.
- ¿Cual de los siguientes se compone principalmente de agua?
 - Un ladrillo
 - Una naranja
 - Un cacahuete
 - Un sueter
- ¿Cual de los siguientes puede disolverse en el agua?
 - Madera
 - Arena
 - Harina
 - Azúcar
- ¿Que método podrías usar para investigar un líquido desconocido?
 - La cromatografía
 - La contaminación
 - La condensación
 - La disolución
- ¿Que pasa si demasiados fertilizantes se disuelvan en un estanque?
 - Nada.
 - Los peces se enferman.
 - Los peces crecen mucho.
 - El estanque se inunde.
- ¿Donde se absorbe la mayoría del agua en el cuerpo humano?
 - La boca
 - El intestino delgado
 - El intestino grueso
 - El estómago
- ¿Que cantidad de agua debe tomarse en un día?
 - Dos vasos de agua
 - Cuatro vasos de agua
 - Seis vasos de agua
 - Ocho vasos de agua
- ¿Cual de los siguientes contribuye a la contaminación del agua?
 - Productos químicos para el jardín
 - El agua bajo la tierra
 - El dióxido de carbono
 - Las plantas nativas
- ¿Cual proceso es parte del ciclo hidrológico?
 - Sedimentación
 - Condensación
 - Transportación
 - Aviación