

Water is Special

Standard III

Students will gain an understanding of Physical Science through the study of the forces of motion and the properties of materials.

Objective 2

Analyze objects and record their properties.

Intended Learning Outcomes

Knowing In Science: Understanding the nature of science.

Content Connections: Create visual art

Background Information

Connections

This activity employs the use of anticipation guides as a teaching strategy. To prepare an anticipation guide teachers prepare a list of statements, about the topic, for students to discuss before reading or beginning the investigation. Some of the statements need to be true and some need to be false. This strategy can be used to activate background knowledge before reading or doing an activity, as well as to simulate interest, compare before and after decisions, reverse misconceptions, and assess students' understanding of new knowledge and/or skills.

Research Basis

Head M.H., Readence J.E. (1986). Anticipation guides: meaning through prediction. In E.K. Dishner, T.W. Bean, J.E. Readence and D.W. Moore, (Eds.) *Reading in the Content Areas*.

Anticipation guides are used before and after reading in a context area or conducting an investigation. Inquiry connections using this technique include the application of new knowledge, citing evidence for decisions, and allowing students to debunk their own misconceptions and assess their own language.

Akerson, V.L., Hanusein, D.L. (2005) A collaborative endeavor to teach the nature of scientific inquiry, there's more to science than meets the "I". *Exemplary Science: Best Practices in Professional Development*. 1-10.

The authors found that when teachers were taught how to adapt curricula to emphasize inquiry and the nature of science, they were able to confront and change their own ideas of how science should be taught. They were better able to develop strategies for teaching science as inquiry while emphasizing the nature of science to their own students.

1st 3-2 1.1

Invitation to Learn

Materials

- I am Water*
- Chart paper



1. Anticipation Guide – This is an activity that allows you to assess what your students already know about water. Read the following statements to the children. Have them show thumbs up if they think the statement is correct; show thumbs down if the statement is incorrect. Record the number of students that agree with the statements and how many disagree. Do this for each statement. In order for the statement to be true all parts of the statement need to be true.

Water is important for animals.

Rocks need water.

All living things need water.

Water is for cooking.

People do not need fresh water for drinking or cooking.

2. Read the book *I Am Water* by Jean Marzollo.
3. Review the statements. On chart paper, interactively write about why the statements are true or false.

Instructional Procedures

Materials

- Water Alpha Box*
- Water Alpha*
- Spaghetti noodles
- Kool-Aid
- Macaroni
- Dry cheese packet
- Jell-O
- Dinner plate
- Clear drinking cup
- Water is Special*



1. Divide your class into groups and give each group a *Water Alpha Box* graphic organizer. Have each group fill in each box with at least one water word that corresponds with the letter on the graphic organizer.
2. Place the *Water Alpha Box* poster at the front of the room. Have each group share words from their list to complete the class graphic organizer.
3. Keep the *Water Alpha Box* displayed for the remainder of the water unit.
4. Show the students a plate with uncooked macaroni noodles sprinkled with cheese, Jell-O powder and uncooked spaghetti noodles. In a clear drinking glass, empty a packet of Kool-Aid powder. Point to the spaghetti and ask, "What is this? (Spaghetti). "Would you like to eat it?" "What does the spaghetti need to make it edible/something you would want to eat?" (to be cooked).
5. Point to each of the other items and ask the same questions.
6. On a dry erase or white board write: Spaghetti, Jell-O, Macaroni and Cheese, Kool-Aid

7. Ask, "What does a person need to cook spaghetti? Write the word "water" under "spaghetti" on the board. Ask the same question for the remaining foods and write water under each word. Tell the students that water is important when preparing food. Discuss other things that water is important for. (For example, cleaning, drinking, having fun)
8. Teach the song *Water is Special*. (Sing to the tune, *London Bridges Falling Down*)
9. Put the children in groups and have them create a new verse to the song. Let the children refer to the *Water Alpha Box* if they need ideas.
10. Share the new verses to the song.

Assessment Suggestions

- Have the students draw or write one way we use water for each of the following; drinking, cleaning and having fun.
- Have the students play water charades. Assess whether the students can correctly think of a water word from one of following categories to act out: cleaning, cooking or having fun. If they need assistance have them use the words from the *Water Alpha Box* graphic organizer.
- Invite students to create a poster, advertising the importance of water.

Curriculum Extensions/Adaptations/ Integration

- Have the students illustrate the verses of the song *Water is Special*. Put one line from the song on each page and have the students illustrate each page, creating a class big book of the song, *Water is Special*.
- Have the students read and act out the song for Readers' Theater.
- Give the students paint brushes, paper and dry tempera paint. Ask them to paint a picture. Point out that they need water in order to paint. Add water and have them paint.
- Have the students create their own anticipation guides about water and its uses. The students can then quiz each other.

Family Connections

- Have the students keep track of how water is used to prepare their dinner.
- Have the students take home the anticipation guides they created in class and use them to teach their families what they've learned about why water is special.
- Have the students create a bingo card using pictures of how we use water in our homes. While at home have them color a bingo square each time they use water in one the ways on their bingo card. When they get bingo, they can return their card to school for a reward.

Additional Resources

Books

I am Water, by Jean Marzollo; ISBN 0-590-26587-3

A Drop of Water, by Walter Wick; ISBN 0-590-22197-3

Water, Water Everywhere, by Joan Wade Cole and Karen K. Welch; ISBN 0-8332-1126-9

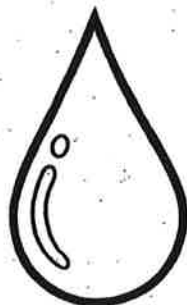
Water Dance, by Thomas Locker; ISBN 0-15-201284-2

Web sites

<http://www.ga.water.usgs.gov/edu/helptopics.html>

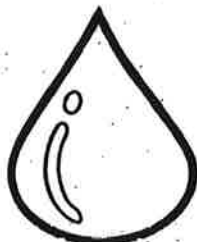
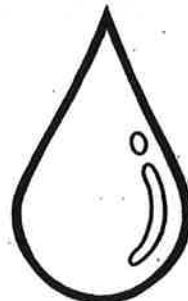
<http://www.water.usgs.gov/outreach/OutReach.html>

Water Alpha-Box	A	B
C	D	E
F	G	H
I	J	K
L	M	N
O	P	Q
R	S	T
U	V	W
X	Y	Z



Water Is Special

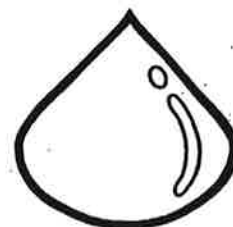
(sing to the tune of London Bridges Falling Down)



Water is in drippy drops,
Water is in soapy mops,
WATER IS SPECIAL.



Water fills in swimming pools,
Water fills fishes schools,
WATER IS SPECIAL.



Water makes spaghetti floppy,
Water makes puddles sloppy,
WATER IS SPECIAL.



Water keeps us all alive,
It's necessary to survive,
WATER IS SPECIAL.