

WHAT IS WATER?

K-
2ND

OBJECTIVES

- Use your senses to describe the qualities of water.
- Identify the three states of water (liquid, solid, gas).
- Discuss how water moves between these three states.

BACKGROUND INFORMATION

Water can exist in three states: liquid, gas, and solid. Water can be found almost everywhere on earth, including in: animals, plants, soil, and people! As a gas it is found in steam, fog, and even your breath. The solid form of water is visible in ice or crystal formations. In its liquid state, you can find water in rivers, lakes, oceans, rain, clouds, and even inside the stems of plants. Water is everywhere!

MATERIALS

- Construction Paper
- White Paper
- Colored Markers
- 6 Containers (sandwich bags or ice cube trays)
- Ice Cubes
- Fruit Juice
- Lemon Juice
- Soapy Water
- Watermelon
- Magnifying Lens (1 per group)

ANTICIPATORY SET

As a class, fill out the first two sections of the K.W.L. (Know, Want to Know, Learned) chart found at the end of this lesson. Ask your students what they already Know about water, and what they Want to Know about water and write these answers under K and W. At the end of the lesson, fill out the Learned section as a class!

See if your students can answer these tricky riddles!

- What do you call a snowman in the summer? A puddle
- What runs but never walks? Water

MAKE A LAB JOURNAL

Have students create lab journals in class or ahead of time.

1. Give each student one sheet of construction paper and three white papers.
2. Students will fold the construction paper in half to create the cover of their journal, then fold the white pages and insert them into the cover to create the pages of their journal.
3. The teacher should staple each booklet along the spine.
4. Allow your class time to decorate! Be sure each student includes their name on the cover..

MAKE OBSERVATIONS USING YOUR SENSES

1. Ask your students to name each of the five senses used to explore the world (i.e. smell, sight, taste, touch, and hearing).
2. Using soda pop, demonstrate how to use their senses to determine characteristics of the sample. Do not allow them to use their sense of taste for this exercise.
 - Feel the stickiness of dried soda, smell the sugar, hear the carbonation, see the dark color and bubbles.
3. Demonstrate how your students will fill out the first page of their lab journal to record observations. They can use words like "sticky," or "dark brown" to describe the soda. They can also choose to draw pictures.
4. Once your class is done observing the sample of soda, give each group of four students a different substance to make similar observation about (fruit juice, lemon juice, ice cube, soapy water, watermelon, etc.).
5. On a new page in their journal, ask them to draw or write what they see, smell, hear, and feel for this new sample. Students should predict the identity of the sample and write this at the bottom of their observation page.
6. Groups will move around the room, observing the different samples on new pages in their journal.
7. Once your class has made observations about each sample, reveal what each sample was!

THINKING/DISCUSSION

Ask your class what each of these samples had in common. Can they predict what the main ingredient in each sample was? Water!

Ask your class which "States of Matter" were represented in these samples. Liquid and Solid (the ice cube!) Can they guess the missing State of Matter ?

WATCH: CHANGING STATES OF MATTER VIDEO

Watch Annie and Moby's video: "Changing States of Matter." Link under Resources.

Ask: What was the third state of matter that was not represented in the observation activity? Gas! Tell your students that Water Vapor, or water as a gas, is all around us all the time! Water vapor is an ingredient in the air we breathe.

MAPPING

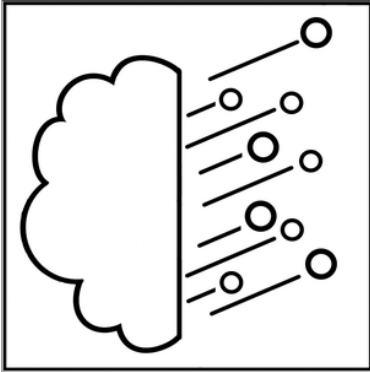
1. Divide your class into groups of four students, and give each group a large piece of paper and a marker.
2. Each group will create a Tree Map with "Water" written at the top, and the three branches of the tree should say, "Liquid," "Solid," and "Gas."
3. Around the room, hide four sets of the Water State cards (Located at the end of this lesson). There will be multiple copies of each card hidden around the room.
4. Each group will send one student out at a time to retrieve a card and bring it back to the table. As a group, they will place this card on the branch it represents.
5. Once the card is classified, they should send another student out to retrieve a new card. Continue these steps until all the cards have been found and classified.
 - If a group finds a card they have already classified, they should put it back and find a new card.

PONDER

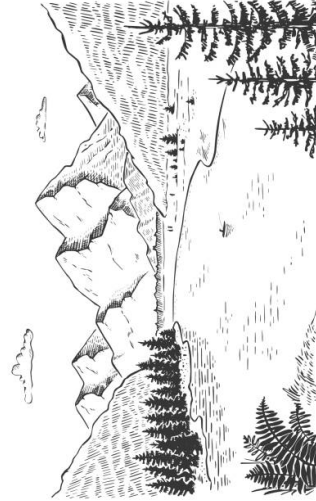
Ask your students to think about how water moves between the three states of matter. For example, how can an ice cube become a puddle of water? How can a puddle of water become water vapor (gas)? How can a puddle of water become ice?

KWL CHART: WATER

Know	Want To Know	Learned
		



Hail



Lake



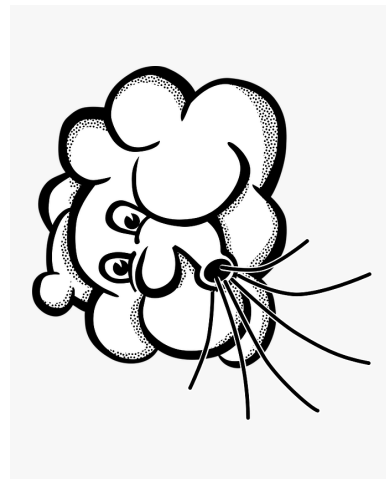
Rain



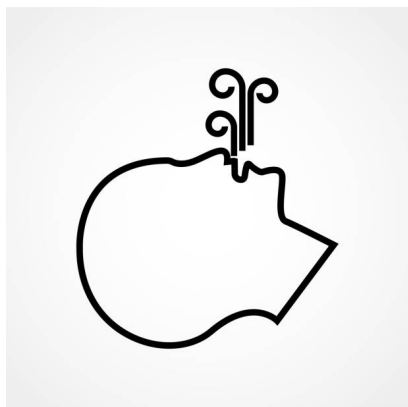
Snow



Air



Wind



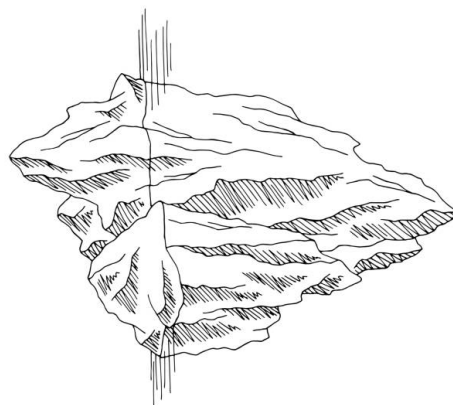
Breath



Steam



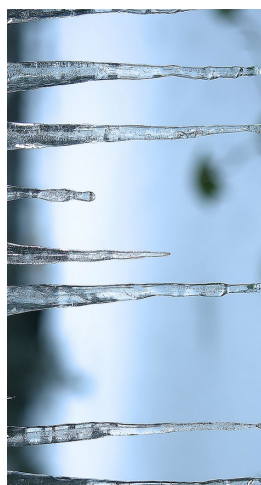
River



Iceberg



Waves



Icicle

RESOURCES

- Annie and Moby: "Changing States of Matter." Available from <https://jr.brainpop.com/science/matter/changingstatesofmatter/>
- "Water Match" Lesson Plan from Project Wet Curriculum & Activity Guide. Bozeman, Montana; The Water Course.

TEKS ALIGNMENT

Science, Adopted 2021:

K(a) 1Ai, 1B. (b) 1A, 1B, 1C, 1D, 1E, 1F, 1G, 2B, 3B, 3C, 5E, 5G, 6, 11

1(a) 1Ai, 1B, 5. (b) 1A, 1B, 1C, 1D, 1E, 1F, 1G, 2B, 3B, 3C, 5A, 5E, 5G, 6A, 6B

2(a) 1Ai, 1B, 5. (b) 1A, 1B, 1C, 1D, 1E, 1F, 1G, 2B, 3B, 3C, 5A, 5E, 5G, 6A, 6B

English Language Arts and Reading, Adopted 2017

K(b) 1A, 1C, 1D, 5C

1(b) 1A, 1C, 1D

2(b) 1C, 2D

Mathematics, Adopted 2017

K(b) 8A, 8C

1(b) 8A, 8C

2(b) 10D



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