NATIVE AMERICAN EDUCATION FOR ALL RESOURCES

Partnership of IllumiNative and the National Indian Education Association



Grade Level

PK-2

Subject
Science
Art

Lesson Title The Transformation of Water

Activity Description: In this activity, children will understand the importance of transformation in Native American stories and culture, specifically the transformation of water as nature changes and adapts to the changing seasons. Students will then have the opportunity to explore the transformation of water into a gas, liquid, and solid, and identify transformations of water in their home.

MATERIALS NEEDED

• "Water Story", part of the Indian Reading Series: Stories and Legends by the

Northwest by Education Northwest

- 1 bag of empty balloons; 1 balloon pre-frozen with water inside
- 1-2 cups of water
- Paper
- Colored pencils, crayons, or markers

STEPS

Read "Water Story" with your child.

For the first part of this transformation activity, pre-freeze one balloon with water. Note, you will want to be outdoors because water will be involved. For the second part of the activity, you may want to be indoors.

Gas, Liquid, Solid Activity (refer to the prompting questions in the "Helpful Tips" section below)

- 1. Hand your child 1 empty, unfilled balloon. Ask your child to blow into the balloon, and then help them tie it off.
 - a. Discuss the GAS state of matter with your child, using the unfilled, empty balloon.
- 2. Hand your child the second empty, unfilled balloon, and a cup of water. Ask them to pour the water into the balloon.
 - a. Discuss the LIQUID state of matter with your child using this balloon filled with water.
- 3. Hand your child the pre-frozen, solid balloon. Warn them it might be cold.
 - a. Discuss the **SOLID** state of matter with your child using this solid balloon.

"States of Matter in our Home" Activity

- 1. Make 3 equal-sized boxes on a sheet of paper, and label them SOLID, LIQUID, and GAS.
- 2. Walk with your child around you home and point to different items in the home in different states of matter, both gas, liquid, and solid, and ask them to write or draw the object into the correct category.
- 3. After you are finished, review this activity with your child to see which items they identified correctly.

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HELPFUL TIPS

When reading the "Water Story", consider asking your child prompting questions about the different states of water, and
how water flows. Share with your child that just like water transforms in the story, transformation is a part of many Native
American stories and can help to demonstrate that nature is always changing and that change and adaptation is
something that is necessary and helps to keep nature in balance.

In this activity, let your child play with all three types of balloons. Let them feel them, jiggle them, hang them down by the end, and even throw them down onto the ground if they would like to.

GAS

- Consider asking your child these questions: "Is there anything inside of these balloons?" "What can we fill these balloons with?"
- Once your child blows up the balloon, share with your child that air is made up of gasses and it is all around us, but we don't see it. When you put some air into the balloon, it captures it and this helps us to see it and feel it. Emphasize that air is a GAS. Help them blow up their balloons, tie them and tell them to experiment with the GAS balloons.
- Consider blowing up your own balloon and let each child take a turn pinching the bottom and letting it go. Tell them, "Let's watch gas in action. What do you predict will happen?"

LIQUID

• Talk about what kind of LIQUID they might fill their balloons with. Help them fill their balloons with water and emphasize that water is a LIQUID. Again, let them play with these balloons. You may need to have multiple water balloons prepared, as they may break them easily.

SOLID

• Pay special attention to the play with the solid ice balloons. Have your child slide the ice balloons instead of throwing them.

WANT TO I FARN MORE?

Families and Educators: This activity may open other talking points around water transformation, and the connection and relationship Native people have to water.

• To learn more about topics, such as, "water in our community", "water balance", "the cycles of water", "water reciprocity", and "water relationships", please see these <u>additional activities</u> from Honoring Tribal Legacies that you can do at home with your child to help them discover their own relationship with water.

Activity Resource Links:

"Water Story": http://apps.educationnorthwest.org/indianreading/2/book15.pdf

Adapted from: https://blogs.uoregon.edu/honoringtriballegacies/teachings/discovering-our-relationship-with-water-3/discovering-our-relationship-with-water-4/