

Lesson Title	Water is Water	Planned Teaching Date			
Learning Objective					
There are different states of matter. Temperature is a factor that changes water's state of matter.					
Essential Question (s)					
In what ways does water in different states vary (qualitative and quantitative)?					
Materials					
Flags Data sheets and Journals Books		Thermometers Ice Cubes			
Bloom's Level and Question(s) or DOK					
Identify patterns in data Make Observations Collect Data Draw Conclusions/ Analyze data					
Reading, Writing, & Science Literacy Connections		SOL Emphasis			
<u>National Geographic Book</u> <u>All Kinds of Snow</u>		Sci: 1.7, 2.3, 2.6			
<u>Supplementary Book</u> <i>Water is Water</i> Video of Reading: <u>Water is Water</u> Sung as a song: <u>Water is Water</u>		Sci: K.4, K.9, 1.7, 2.3, 2.7, 3.7 Soc Studies: 3.13			
<u>Outdoor Activity (connected to the readings)</u> States of Matter: Water or Air temperature over time		Sci: 2.1, 2.3, 2.6			
Writing Activity- Project Learning Tree: <u>Poet-Tree</u> (change it to observe and journal about a state of matter of water)		English: 2.6, 2.10			
Differentiation					
Could alternatively use Freezing and Melting from https://drive.google.com/drive/u/0/folders/1Ntk2bmRk_IAdauBhbI2dBp-Xw1V-kuhA page 76					
Assessment		Vocabulary			
Formative-					
Summative-					
Hook/ Engage					

Ice Cube Hand-

Hold an ice cube in your hand. Ask: What is in my hand? What state of matter is this? What will happen if I hold this ice cube in my hand for 20 minutes? (It will turn to water). What happened (change state of matter because of temperature.).

Guided Lesson/Instructional Strategy

- Read *All Kinds of Snow*
- As we read, in your journal, record the adjectives used when describing the state of matter featured on pages 7, 8, and 9.

NOTE: We are going to measure air temperature outside because it is August. This activity is intended for use in winter as a great way to get kids outside exploring in the winter season!

- Outside: (Taken from "Feel the Heat" in Picture Perfect)
 - Ask: We are going to take the temperature at five different locations. Which surface do you predict will be the warmest? Which is the coolest? Discuss with a partner. Then have a pair share aloud. Explain your reasoning.
 - Do: There are five flagged locations. Go to each location, find the thermometer and read the temperature. Record the location, temperature, if it is sunny or shady, and any other observations on your data sheet.
 - Share and discuss: What patterns do you notice when you look at your data?
 - What can we do with this data?
 - Now I want you to graph that data you collected
 - If time - poet tree 4 nouns; 3 adjectives; 2 verbs; 1 noun

For the winter season: Look for water outside (in a puddle or place a shallow container of water outside the classroom). Each day for two weeks (wait for freezing temps), record the temperature of the water and the state of matter on the water calendar (see page 4).

Technology/Computer Science	Expected student products or learning objectives met
Create graphs using computers.	-Mandatory: -Optional/preferred:
Reflection/Notes	Supporting Resources
Alt ideas- Math - explore patterns in snow/geometry: are there other frozen water types you see/feel, touch in winter? Set up an experiment to test freezing water outside at different temperatures, depths, and lengths of time.	<u>Recess at 20 Below</u> by Cindy Aillaud Sci: K.5, 1.7, 2.6, 2.7 Social Studies: 3.13

Comparing Temperatures

Directions. Write the name of each location on the chart under “location”. You will measure the temperature at each location.

Record the temperatures in your chart.

Location	Temperature (F)	Sun or Shade

Circle the highest temperatures. Why do you think it was the highest?

Class Water Calendar