Grade: 4th	**Subject:** Science
Materials: Observation sheets, clear cups, salt, water, grapes	**Technology Needed:**
Instructional Strategies: ☐ Direct instruction ☐ Guided practice ☐ Socratic Seminar ☐ Learning Centers ☐ Lecture ☐ Technology integration ☐ Other (list) ☐ Peer teaching/collaboration/ cooperative learning ☐ Visuals/Graphic organizers ☐ PBL ☐ Discussion/Debate ☐ Modeling	**Guided Practices and Concrete Application:** ☐ Large group activity ☐ Independent activity ☐ Pairing/collaboration ☐ Simulations/Scenarios ☐ Other (list) Explain: ☐ Hands-on ☐ Technology integration ☐ Imitation/Repeat/Mimic
Standard(s) 4-ESS3.A: Natural Resources -Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not. **Objective(s)** By the end of the lesson, students will be able to observe the difference between regular water and salt-water through sight, texture, taste, and buoyance. **Bloom's Taxonomy Cognitive Level:** Apply, Create	**Differentiation** **Below Proficiency:** Students will have minimal explanations for their answers. **Above Proficiency:** Students are expected to have detailed explanations for their answers. **Approaching/Emerging Proficiency:** Students are expected to have well-thought out answers. **Modalities/Learning Preferences:** Creative, Hands on
Classroom Management- (grouping(s), movement/transitions, etc.) I will create a positive environment by engaging the students in a science observation and activity. The students will be responsible for participating and collaborating with their partners. I will provide instruction for moving around the room during transition times.	**Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)** Students are expected to participate in the activity and collaborate with their partners.

Minutes	Procedures
	Set-up/Prep: • I will set up the water cups before the students begin their science lesson. (During their morning attendance and Dreambox). • I will hand out the grapes while students begin their observations. .
3	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)** • I will begin the lesson by asking the students if they can recall the bodies of water that they have learned from the previous day. • Then we will discuss and compare the difference between a river, lake, and ocean.
10	**Explain: (concepts, procedures, vocabulary, etc.)** • Today we are going to observe the difference between regular water and salt-water. • I will tell the students that I will be handing out a sheet of paper. The sheet of paper will have the directions on them, which we will read over as a whole class. This is where they will document their observations. • I will ask the students if they have any questions before we start our observations. • I will then assign students with a partner. Once I call out who is partners, those partners can start to make a line by the sink. Do not touch anything yet and remain quiet so that everyone can hear. • Once everyone is lined up by the sink, I will tell them that they can each grab two cups, one with no label for "regular water" and one with a S label for "salt water" per person. • Once both partners have their materials, they will have to find a desk or table by each other. I will let them know I only want the water cups on a desk or table to lessen the chances of spilling. • When they get to their spot, they need to set their materials down and wait for the next set of directions. • I will then explain they will be following the directions on their sheet of paper for the rest of the observation. • When they are done, they will dump the water in the sink, stack their cups to the side of the sink, and either eat or throw away their grapes. • They can then either read a book or work on homework while they wait for everyone else to finish up. • If they have any questions, raise their hand and I will come to them to help them.
20	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** • Students will then begin their observations while collaborating with a partner. • As students begin their observations, I will go around and give each student two grapes.

	• I will explain to them that they cannot eat their grapes. They will place the grapes to the side until the directions on their sheet tell them to use their grapes.
5	**Review (wrap up and transition to next activity):** • Once it looks like everyone is finishing up, I will have the students clean up and go back to their desks. • I will then allow students to share their answers they put down on their observations by reading through the sheet again and calling on the students who raise their hand to answer. • Students will then turn in their observation sheets to me.

Formative Assessment: (linked to objectives, during learning) **Progress monitoring throughout lesson (how can you document your student's learning?)** I will be able to assess the students understanding of regular water/salt-water by reading through their observations.	**Summative Assessment (linked back to objectives, END of learning)**

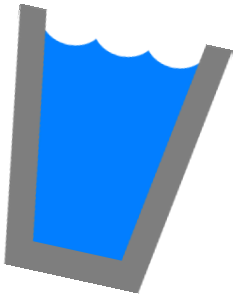
Reflection (What went well? What did the students learn? How do you know? What changes would you make?):
I think my science lesson went very well. They students were excited to participate. I went over the rules and directions well ensuring the students knew my expectations for the lesson. I made sure they stayed on tasked and reminded them to be quiet when needed. Having one line to grab the water cups went smoothly. Also, handing out the grapes later was a good idea to prevent students messing around with them or eating them before their experiment. I think it was a good idea to let each student have their own cups and grapes. This prevents sharing germs, and it also ensures that every student is participating. Since the directions were very detailed, we were able to prevent spills from happening. I also made sure I walked around to observe students and help when I was needed.

What I would change for next time is to answer a couple questions on the observation sheet with the class as a whole before I let them go work with their partners. This way I can make sure everyone knows what they are doing and prevent any confusion. I also would have liked to have the students rate the lesson. I could have put a rating at the bottom of the page and have the students give me what they liked, and something that they didn't like or would change. This would help me improve my lesson even more if I got my students input on how they think the lesson went.

Name(s):_____

Directions: Read and record your observations for each question in complete sentences.

1. **Describe what the water looks like (color) without salt.**



2. **What do you think it will taste like?**

3. **What does it taste like? What is the texture of the water?**

4. **Where do we get our water from? What do we use water for?**

5. **What are some of the closest rivers and lakes near Bismarck?**

6. **Describe what the salt-water looks like (color)?**

7. **What do you think the salt-water will taste like?**

8. **What does the salt-water taste like? Do you like the taste? What is the texture like?**

9. **What do we use salt-water for? What organisms can live in salt-water?**

10. **Why do you think humans can't drink a lot of salt-water?**

11. **What oceans are the closest to North Dakota?**

*********Place one grape in the regular water and place one grape in the salt-water.***

12. **Why do you think the grape sinks in the regular water, and why do you think the grape floats in the salt-water?**