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| Grade 1   | <b>Lesson:</b><br>Water - Part 1 | Reference to English Interconnections Lesson<br><b>Water</b> pg. 26  |
| <b>Science Standard(s): Standard 2.1</b>  |                                  |  |
| <b>Content Objective(s):</b>  |                                  | <b>Language Objective(s):</b>  |
| <p>Students will demonstrate that water changes shape, gets absorbed, evaporates and has weight during the center activities in small groups.</p> <p><i>I can demonstrate characteristics of water during centers in small groups.</i></p>  |                                  | <p>Students will show thumbs up or down to demonstrate understanding of the characteristics of water during whole class instruction.</p> <p><i>I can show thumbs up or down to show my understanding of the characteristics of water during whole class instruction.</i></p> |
| <p><b>Essential Questions:</b><br/>How do we investigate the natural world at school?</p>   |                                  | <p><b>Required Academic Vocabulary for Word Wall:</b><br/> <b>Listen:</b> water<br/> <b>Speak:</b> water, no water<br/> <b>Read:</b><br/> <b>Write:</b><br/> <b>Sentence Frames:</b></p>   |
| <p><b>Materials:</b></p> <ul style="list-style-type: none"> <li>• Pictures of places where there is water</li> <li>• Pictures of places where there is NO WATER</li> <li>• Clear container filled with water</li> <li>• Sponges, cut into small, medium and large pieces (at least 18 depending on groups sizes)</li> <li>• Eye droppers</li> <li>• Bowls (# depending on group sizes)</li> <li>• Liquid measuring cup</li> <li>• Water</li> <li>• Paper towels (3 sections per student)</li> <li>• Plastic bags</li> <li>• Twist ties</li> <li>• Colored water</li> <li>• Different shaped containers</li> <li>• Fan or blow dryer</li> <li>• Balance scale</li> <li>• Blank paper for drawing results of experiments</li> </ul> |                                  | <p><b>Additional Lesson Vocabulary:</b><br/>Paper towel, fan, sponge, river, lake, ocean, bath, sink</p> <p><b>Review Vocabulary:</b></p> <p><b>Sentence Frames:</b></p>   |
| <b>Lesson: Water</b>  |                                  | <b>Instructional Time:</b><br>40 minutes or two 40 minute sessions   |
| <p>Note: These activities can either be used in centers or demonstrated to the entire class. You will need to decide which you want to do. If the children do the experiments in small groups you will need to think through your process of managing the center rotations but you will need less materials and it will take less time. If you choose to demonstrate them to the class and then have them perform the experiment as a class you will need more materials and it will take two class sessions to complete the activities. Read the entire lesson so you can decide which way you will present the four activities.</p>   |                                  |  |

### Opening: (2 minutes)

Show students a clear plastic container of water. Splash it gently and say:

**T: "Water, water, water. Water is everywhere."**

On the board, display labeled picture of places where there is water and places where there is no water.

**T: "Raise your hand if you can point to 1 place you have seen water."**

*S: Students will raise their hands and point to the locations they have seen water, "lake" or "ocean" or "river" or "bath"*

- Move these pictures under a heading WATER (with a simple drawing of water) Add extras if the children name other places with a simple drawing to connect print to the concept.
- Move the pictures of those places where there is NO WATER under the heading NO WATER (also with a simple drawing of water crossed out).

**T: "All of those are correct. We see water everywhere. Water is very important. We need water to stay alive."**

**T: "Today we are going to learn about water."**

### Introduction to New Material (Direct Instruction): (10 minutes)

**T: "We will learn about water through the 4 following activities. I will first explain the activities and then the expectations during them. Then you will rotate through them in small groups. (Act out small groups and rotating while explaining)**

### Guided Practice: (10 minutes)

Teacher Does:

**1. Center #1: Change the Shape** (children will learn that water takes the shape of its container)

- Students pour colored water from one container into others with different shapes. Each time they pour, they draw the new shape of the water.

**T: "At the first station, you will pour colored water from one container into others."** (Demonstrate pouring the colored water from one container to the other carefully without spilling). **"Look at the shape of the water. I'm going to draw the shape of the water on my paper."** (Draw the shape and color the water area.)

**T: "Is the WATER the same shape as the cup?"** (Point to the water and the cup) **"Yes! The WATER is the same shape. Let's try pouring the WATER into another container. Do you think the WATER will be the same shape again?"**

*S: "yes" or "no"*

Pour the colored water into a new container

**T: "Is the WATER the same shape as the container? Yes. I'll draw a picture of the WATER on my paper again. When you go to this center, you will pour the WATER into different containers and draw a picture of the WATER each time. (Demonstrate the instructions as you say them.) "WATER takes the shape of its container."**

Students Do:

- If you are choosing the whole class approach, have the students experiment with colored water and the containers. Place students in groups of 2 or 3. Each group gets a container of colored water and one container. The students will draw the shape of the colored water in the container. Then they will get a new container from the box of containers up front and pour the colored water into the new container. The students draw the shape of the water in the new container. Finally they take the old container up to the front and exchange it for a new container. Students will repeat the process of pouring, drawing, and exchanging containers until your time is up.

Teacher Does:

**2. Center #2: Drinking Sponge** (children will learn that water can be absorbed, but only limited amounts.)

- Place each sponge in a dish. Children will use an eyedropper to drop water onto each sponge until water starts to puddle in the dish. They squeeze the water from each sponge into a measuring cup to compare the amount of water that has been absorbed by each sponge.

**T: "At the second station, you will learn how water can be absorbed or soaked up. I have three sponges here: a little sponge, a medium sponge, and a big sponge. Let's find out how much WATER they can absorb until we begin to see WATER in the dish."**

Use the eyedropper to drop water onto each sponge. For fun you can count how many drops or squeezes of the eyedropper you put on the sponge until you begin to see water in the dish. This will reinforce counting skills.

*S: Students count the drops or squeezes of water with the teacher.*

**T: "Oh, I see some WATER in the dish on the little sponge. That one is done, but I'll keep going on the middle and big sponges."**

Keep dropping water and counting until the medium and finally the big sponge fill up.

**T: "We're done dropping WATER onto the sponges. Let's find out how much WATER each sponge held. To do this we will pick up the sponge and squeeze the water out of it in to the measuring cup."**

(Demonstrate squeezing the water into the measuring cup and reading how much water there is.)

**T: "Let's try the second sponge. Do you think there will be MORE water in this sponge or LESS water?"** (Use gestures for more and less). **"Place your hands far apart if you think there will be MORE water and very close together if you think there will be LESS water."** (Repeat MORE water and LESS water while gesturing and going around the class to see what they think)

*S: Students place their hands far apart for MORE water and close together for LESS water. Some may even say "more water" or "less water".*

**T: "Good. Let's see if you are right."** (Squeeze the sponge into an empty measuring cup and read the amount. Confirm if it was more or less.)

**T: "If you were right, kiss your brain!"** (kiss your hand and then place it on your brain)

Students Do:

- If you are choosing the whole class approach, the students will now work in groups to see how much water the small, medium, and large sponges will hold. You will need enough sponges for 3 per group in addition to eyedroppers and measuring cups.

Teacher Does:

**3. Center #3: Dry Run** (children will learn that water evaporates in the air)

- Children wet three paper towel sections. They put one towel in a plastic bag and twist-tie it closed; leave one on the table; hold one in front of a fan or hair dryer. At the end of the day, they check to see what happened to the towels.

**T: "For this experiment, we will see how WATER evaporates or disappears into the air. I will use three paper towel sections. We will get all three of them wet."** (Get all three paper towels wet.)

**T: "Now we will leave one of them on the table to see what happens to it."** (Place one on the table.)

**T: "We will take the second one and put it inside this little plastic bag and close it with a twist-tie."** (Put it in the bag and close it up with the twist-tie.)

**T: "The last one we will hang in front of a fan. Which one do you think will dry first? When I count to three I want you to point to which paper towel you think will dry first? Which will have no more WATER first? Ready? 1,2,3"**

*S: Students point to the paper towel in front of the fan.*

**T: "Good. Now we'll see if you're right."**

Students Do:

- If you are choosing the whole class approach, the students will now work in pairs or groups of three to wet the paper towel sections and place them in the appropriate parts of the room. Remind students of the instructions. After you finish, you can confirm if the students' predictions were correct.

Teacher Does:

**4. Center #4: Heavy Water** (children will learn that water has weight)

- Hold both sponges in your hands. Do they weigh the same? Weigh the sponges on the balance scale. Fill droppers with water and fill one sponge with water. Now lift both sponges again, one in each hand. Compare the weight. Do they still weigh the same? Weigh the sponges on the balance scale. Compare the weights (the sponge with water is heavier).

**T: "Our last activity will help us learn that water has weight. Here I have two sponges that are the same size."** (Show that they are both the same size.)

**T: "They weigh the same too."** (Hold a sponge in each hand and demonstrate feeling the weight of both. Then put one sponge on each side of the balance scale. Show that they weigh the same.)

**T: "Now we are going to fill just one sponge with water using an eyedropper and see if both sponges weigh the same then."** (Using the eyedropper, fill one sponge with water. Leave the other one dry.)

**T: "Which one do you think is heavier? (Act out heavier.) "Which one weighs more, the one with water or the one with no water? Turn to your neighbor and say 'water' or 'no water'."**

*S: will turn to their neighbor and say "water" or "no water".*

**T: "We can put the sponges on the scale to see which is heavier."** (Place the wet sponge on one side of the balance scale. Place the dry sponge on the other side. Watch the scale to see which side is lower.)

**T: "You were right! The wet sponge is heavier. WATER has weight. Do a silent cheer if you were right."** (Demonstrate cheering in the air without making a sound.)

**T: "Let's record our experiment by drawing the results on our papers."** (Draw a simple balance scale with the sponge with water pointing downward and the dry sponge side pointing upward.)

Students Do:

- If you choose to do this one as a whole class, you will need enough balance scales for each group to have one. You will also need two identical sponges, water, and eyedroppers for each group.
- Students will also draw the results of their experiments.

Note: If you are choosing to do the four activities as centers, use the following lesson outline.

Teacher Does with Students:

- As the students demonstrate each activity, help them along if they forget exactly what each center involves. Talk them through it if necessary.

**T: "Those are the 4 activities. As I explained each activity did I run?"**

*S: will shake their heads, no.*

**T: "Did I make a mess with the water?"**

*S: will shake their heads, no.*

**T: I need a helper to come up and show me how to do center #1."**

- The teacher will choose one student to come up and walk through center #1 showing appropriate behavior.

**T: "Good job. Did you see how he/she walked to the center, sat down, and got started? They poured the water into different shapes, drew them and then moved on to the next shaped container. Raise your hand if you think you can do this!"**

*S: will raise their hands.*

**T: "Let's practice center #2. Who wants to show me how to do center #2?"**

- The teacher will choose one student to come up and walk through center #2 showing appropriate behavior.

**T: "Good job. Did you see how he/she walked to the center, sat down, and got started? They put the sponges in the bowl. Grabbed the eyedropper and started dripping water on the sponge until there was water at the bottom of the bowl. Then they squeezed out the water into a cup and measured. Raise your hand if you think you can do this."**

*S: will raise their hands.*

**T: "Center #3- water evaporates...who wants to help?"**

- The teacher will choose one student to come up and walk through center #3 showing appropriate behavior.

**T: "Good job! Did you see how he/she walked to the center, sat down and got started? They grabbed 3 paper towels, got them each wet, and then started drying them. Raise your hand if you think you can do this."**

*S: will raise their hands.*

**T: "Last one, center #4; we are going to weigh water. Who wants to show how this center is done?"**

- The teacher will choose one student to come up and walk through center #4 showing appropriate behavior.

**T: "Good job! Did you see how he/she walked to the center, sat down and got started? They collected their sponges, water and then weighed them. Which do you think is heavier, the sponge with water or the one without? Turn to your neighbor and say 'water' or 'no water'."**

*S: will turn to their neighbor and say "water" or "no water".*

#### **Independent Practice: (20 minutes)**

- Teacher will separate the students into 4 groups. They will begin the activities. Each center should take less than 5 minutes. When the time is up get all the students attention and have them switch centers. Each student should go to every center.

**T: "I am going to call the names of the students going to center #1. When I call your name I want you to point at your center. Don't go there, just point at it."**

*S: going to center #1 will point at it without moving.*

**T: "I am going to call the names of the students going to center #2. When I call your name I want you to point at your center. Don't go there, just point at it. I have center #1 and center #2 both pointing at their center."**

*S: going to center #2 will point at it without moving.*

**T: "Center #3. When I call your name, I want you to point at center #3 because that is where you are going. Don't move, just point."**

*S: going to center #3 will point at it without moving.*

**T: "Finally, center #4, when I call your name point at center #4. Now all of you know where you are going. When I count to 3 I want you to slowly walk to your center and get started. You will have 5 minutes at your center and then we will switch. 1,2,3, walk to your center."**

*S: will walk to their center and get started.*

- Teacher will walk around the classroom helping the students stay on task.
- After 5 minutes the teacher will clap his/her hands to get the students attention. Tell the students to clean up and direct them to their next center. Do this until all the students have been to every center.

#### **Closing: (5 minutes)**

**T: "Good job with the centers today. Let's review what we learned today.**

**T: "Thumbs up if water can change shape."**

S: *will show thumbs up.*

T: **“Yes, water can change shape. Thumbs up or down, can water be absorbed? Did the sponge collect water or not?”**

S: *will show thumbs up.*

T: **“Two more questions, does water have weight? When water was in the sponge did it weigh more? Thumbs up or down.”**

S: *will show thumbs up.*

T: **“Lastly, does water evaporate? When you put the wet paper towel in front of the fan, did it dry or stay wet. Thumbs up if it dried, thumbs down if it stayed wet.”**

S: *will show thumbs up.*

T: **“Awesome job today. You learned a lot about water. Next time we are going to learn about where we find water.”**

**Assessment:**

Observe students participating in the centers. Collect their experiment drawings.

**Extra Ideas:**

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