**Water Cycle Lesson 4**

*(1/25/13)*

Teacher Candidate: Cheyenne Mellor Grade Level: 4 Title: Water Cycle bags (#4)

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| **CONTEXTUAL FACTORS** (classroom factors) |
| **Contextual Factors:**  22 Students  -12 males, 10 females  -1 bridging ELL  -1 student with severe allergies to milk, egg, peanuts  -4 students have ADHD  -1 student with a blood disorder (vWF)  **Classroom environment:**  Classroom has a Promethean board and Ipads for each student. Students sit at tables with groups of 5-6 people. One student sits on an exercise ball instead of a chair to help him stay focused. |

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| **WALK-AWAY** (As a result of this lesson, what do I want the students to know, understand, and be able to do?) |
| **State Standard/Objective**: 4th grade Science standard 1: Objective 2: B: Describe the processes of evaporation, condensation, and precipitation as they relate to the water cycle (SIOP 1-3).  **Content Walk-Away**: I will compare the processes of evaporation and condensation.  **Language Walk-Away**: I will label and describe condensation, evaporation, precipitation, and collection.  **Vocabulary**: Condensation, evaporation, precipitation, collection |

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| **ASSESSMENT EVIDENCE** (What evidence do I need to show the students have learned the Walk-Away?) | **Modifications/Accomoda-**  **tions** (ELL, IEP, GATE, etc.) |
| **Formative Evidence** (checking for understanding throughout the lesson): Students will fill out the observation sheets over 5 days (SIOP 21).  **Content Walk-Away Evidence (Summative):**  They will show their understanding by filling out the question sheet  (SIOP 30).  **Language Walk-Away Evidence (Summative):**  Students will verbally describe what is happening inside their plastic bag using the vocabulary words: condensation, evaporation, precipitation, and collection. |  |

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| Approx.  Time | **ACTIVE LEARNING PLAN** |
| This lesson will be spread out through a week. (SIOP 26) | **Activate/Building Background Knowledge**  To activate background knowledge, we will sing the water cycle song and review the vocabulary words. (SIOP 7-9)  *Formative assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | I will compare the processes of evaporation and condensation. | I will remember the basics of the water cycle. | I will listen to make sure students are singing the water cycle song. |   *Modification/accommodations: (ELL, IEP, GATE, etc.)*  Students are allowed to use a sheet with the song lyrics if they cannot read the board. (SIOP 5)  **Focus Lesson (“I do it”**  I will present the diagram of the water cycle using the ELMO (SIOP 4) so all students can see. “This is a simple diagram of the water cycle. Can someone tell me what a diagram is? The water cycle does not start or stop anywhere but keeps going in a cycle. Do you think all water droplets go through the cycle at the same pace? (SIOP 15) A water droplet may spend a long time in one particular step but it eventually goes through the other steps. This diagram shows the main steps in the water cycle. Precipitation in when the water is released and falls to the ground. Talk to your partner about the different forms of precipitation (SIOP 16 & 17). The three forms are rain, slow, sleet, and hail. Water precipitates and collects in rivers, oceans, and streams. This is called collection, storage, or water accumulation (SIOP 10). Next, the sun’s energy evaporates the water, turning it into water vapor. Condensation is when the water vapor condenses to form liquid which forms a cloud.  Student # 14 and #18 will pass out a mini water cycle packet to each student.  *Formative Assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | Students will know the 4 forms of precipitation | Students will describe the four forms of precipitation (SIOP 22) | I will walk around and listen to partners sharing their responses. |   *Modification/accommodations:* Partners are based on learning level. They are seated in a way so they will be working with someone at a slightly higher or lower level (SIOP 17).  **Guided Instruction (“We do it”)**  As I model, students will each create their own mini water cycle using a clear bag, a few drops of water, and a cotton ball (SIOP 6 & 20). I will have one student pass the cotton balls, one student pass out the baggies, and one student pass out the water droppers and cups of water. Each partner will get a water dropper and cup to share.  “I need all eyes on me so I know we are ready to create our water cycle. (SIOP 25) You must follow the directions precisely in order to have yours turn out. Everyone follow along with me”. I will stand where everyone can see my actions. “First open your bag. Next place the cotton ball in the corner of your bag. Partner #1 will then drop some water on their cotton ball. You should only use enough to moisten the cotton ball and not fill the bottom of the bag. When you are done, place your things on the table so I know we can move on. Ready, partner one, GO.” (SIOP 18). “Now partner, ready, go.” (SIOP 11)  I will walk around and write each student’s name on the bag with permanent marker and hand each a piece of tape. They will each place their bag on the inside of the door window.  *Formative Assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | I will compare the processes of evaporation and condensation. | I will create a mini water cycle. | Students will have completed the steps in the correct order. I will know by looking inside the bags that are taped on the door. |   *Modification/accommodations:*  I will be certain than student #22 is paying attention and I will ask him to repeat the steps for the class. If he is unsure, I will have another student tell us and then he will repeat (SIOP 13, 19)  **Collaborative/Cooperative (“You do it together”)**  After the first day, we will discuss as a class any differences we observed and I will model how to fill in the observation sheet. On the second day, students will discuss their observations with their groups and show each other their drawings (SIOP 14).  *Formative Assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | I will compare the processes of evaporation and condensation. | Students will observe these processes  (SIOP 23-24) | Students will fill in their observation sheets. |   *Modification/accommodations:*  I will check each student off to ensure all students have completed the observation. This will help to make sure specific students don’t get behind on their observations for the five days.  **Independent (“You do it alone”)**  Days 3-5 the students will make their own observations and write them in their own words on the observations sheets. They will be accountable for writing a sentence and drawing a picture for each observations.  *Summative Assessment:*  Each student will fill out the “what did you learn” page. They will be asked to write in complete sentences (SIOP 21-22). They will describe how they knew the water cycle created a cloud, what happened before the cloud was created, whether they saw precipitation or not, and how the water cycle continues in the bag.  *Modification/accommodations:*  Students will be encouraged to use the vocabulary in their writing. HAL students will be encouraged to do further research on the water cycle and relate it to their mini cycle.  **Closure/Review of walk-aways, vocabulary, and essential questions**  *(Note: Closure includes student interactions, reflection, and/or demonstrations.)*  On the fifth day, we will discuss our findings. We will also label the bags using the terms: precipitation, condensation, evaporation, storage. We will review the cycle and vocabulary terms as we refer to our mini water cycles. (SIOP 27, 28,29) |

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| **SIOP Indicators** *(Add SIOP number and description within the lesson plan)*  **Preparation:** 1-Content objectives, 2-Language objectives, 3-Content appropriate, 4-Supplementary materials, 5-Adaptation of content, 6-Meaningful activities  **Building Background:** 7-Linked to background, 8-Linked to past learning, 9-Key vocabulary  **Comprehensive Input:** 10-Appropriate speech, 11-Clear explanation, 12-Variety of techniques  **Strategies:** 13-Students use learning strategies, 14-Scaffolding, 15-Higher-order thinking,  **Interaction:** 16-Opportunity for interaction, 17-Grouping supports objectives, 18-Wait time, 19-Opportunity for L1 students  **Practice/Application:** 20-Hands-on materials, 21-Activities to apply content/language knowledge, 22-Language skills: reading, writing, listening, speaking  **Lesson Delivery:** 23-Content objective supported, 24-Language objective supported, 25-Students engaged, 26-Pacing  **Review/Assessment:** 27-Review vocabulary, 28-Review concepts, 29-Feedback, 30-Assessment |

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| **TEACHING NOTES** |
| **What do I need to remember to do?** *Work one on one with each student at least once.*  **What materials do I need to have ready?** *Plastic bags, droppers, cups, student observation sheets.*  **What is the approximate time needed for this lesson?** *5-15 minutes a day for 5 days* |

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| **REFLECTION AFTER LESSON** |
| *Next time: Have only one person on each table be in charge of the dropper. Having each person handle the dropper is too much chaos.* |