**Water Cycle #5**

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: Identify the sun as the source of energy that evaporates water from the surface of Earth.  D. Investigate and record temperature data to show the effects of heat energy on changing the states of water. (SIOP 1-3)  **Content Walk-Away**: I will identify the energy source of the water cycle and record temperature to show its effects on water.  **Language Walk-Away**: I will be able to read and interpret a temperature chart in regards to states of water (SIOP 6).  **Vocabulary**: Condensation, evaporation, precipitation |

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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 in temperature data and I will listen as they discuss the connections with their teams.  **Content Walk-Away Evidence (Summative):** Students will take a quiz on reading temperature charts.  **Language Walk-Away Evidence (Summative):** Students will take a quiz on reading temperature charts. |  |

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| Approx.  Time | **ACTIVE LEARNING PLAN** |
| SIOP 26  3 min  5 min  10  5  5  5 | **Activate/Building Background Knowledge**  “Today we will be learning more about the water cycle. First though, I want to make sure you remember some important things we have already learned. Turn to your partner and tell them what the energy source of the water cycle is. Right is the sun. The sun evaporates water from lakes and ponds and other places.” (SIOP 7, 8, 9)  *Formative assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | Identify the sun as the energy source of the water cycle. | Students will know what the energy source is. | They will share with their partner. |   *Modification/accommodations: (ELL, IEP, GATE, etc.)*  Students will be seated in a way to promote interaction. Each table is made up a variety of learning levels and language abilities (SIOP 16-17).  **Focus Lesson (“I do it”)**  “We are going to water scientists today (SIOP 25). We are going to record the temperature of ice as it melts. Let’s brainstorm (SIOP 12-13) some ways we can melt ice without touching it. Talk with your group and write down some ideas on your worksheet.” I will write the ideas on the promethean board for them to refer back to. I will then model how to take the temperature of a piece of ice. I will also model how to record the data using the worksheet (SIOP 14).  *Formative Assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | Investigate and record temperature data to show the affects it has on water. | Students brainstorm ideas on how to melt ice without touching it with their hands. | I will walk around as they are brainstorming and observe them discussing with their groups. |   *Modification/accommodations:*  I will stop and use the vocabulary terms with each of the ELL students (SIOP 19)  **Guided Instruction (“We do it”)**  Every partnership will have a cup with a cup of ice in it (SIOP 20). As I am modeling for them, partner one will take the temperature and partner two will follow my directions in recording the temperature on the worksheet. I will write 0 minutes 0 seconds under the time and explain that the timer starts once we start to melt the ice (SIOP 11). Partner 2 will then start to follow my actions in order to melt the ice. I will go slowly to ensure all students are following along (SIOP 18). The partners will switch every 30 seconds.  *Formative Assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | I will investigate and record temperature data to show the affects it has on water. | Students will know how to take and record the temperature of the water/ice (SIOP 21). | I will observe as students work in partnerships to record their findings on their data chart. |   **Collaborative/Cooperative (“You do it together”)**  “You can use any of these ideas to melt the ice during the experiment. Remember, do not touch the ice with your hands.”(SIOP 10) In their partnerships they will record the temperature as soon as it begins to melt and also write down the time. They will record again as the ice is melting, as it is almost melted, and then again when it is completely melted (SIOP 23)  *Formative Assessment:*   |  |  |  | | --- | --- | --- | | Learning Goal | Success Criteria | Assessment Strategy | | I will investigate and record data to show the affects it has on water. | Students will record data to show the change in temperature. | I will observe as they fill out their sheets and I will listen to their conversations. |   *Modification/accommodations:*  A giant timer will be on the board for all students to refer to.  **Independent (“You do it alone”)**  Each student will write something interesting they found as the ice melted (SIOP 22 & 24) They will then review the temperature chart and answer the questions as best as they can.  *Summative Assessment:* Students will answer the data chart quiz (SIOP 30).  *Modification/accommodations:* There may be several students who will need prompting in order to get going on the quiz and in order for them to understand the questions. (SIOP 5)  **Closure/Review of walk-aways, vocabulary, and essential questions**  *(Note: Closure includes student interactions, reflection, and/or demonstrations.)*  As a review, we will discuss the experiment. We will compare the different results each partnership got. “Why do think doing this melted the ice quicker than doing that?” (SIOP 15)  I will also use the ELMO to display the chart they used for the quiz. We will discuss the meaning of the chart and decide on the correct answers as a class (SIOP 27-29). |

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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?** *Clearly explain the procedure of taking the temperature. Remind them they are to be measuring the ice, not the water.*  **What materials do I need to have ready?** *Charts quiz, clear plastic cups, thermometers, ice, worksheet* (SIOP 4)  **What is the approximate time needed for this lesson?***30 minutes* |