Dominican Lesson Plan

Title:	
Author:	Avery Schneider, Jeremiah Reynolds, Meike Ims, Damaris Gomez
Subject:	Science
Grade Level(s):	Kindergarten
Duration:	40 mins
ELL/SPED/GATE Students List number of students & level	21 students ELL 4, ADHD 2, Sotos 1
Subject Area:	Science- Earth's Systems and Weather
UDL Principles in Action Check which principles are addressed in this lesson.	 Representation/Content (different ways to present content) Engagement/Process (different ways students engage) Expression/Product (different ways students show understanding)
State Standards Use the drop down menus on TaskStream https://www.cde.ca.gov/be/st/ss/ Three Dimensions of NGSS	 1. Science Practice Standard(s): Analyzing and Interpreting Data: Builds on prior experiences and progresses to collecting, recording, and sharing observations. § Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (K-ESS2-1) Engaging in Argument From Evidence: Builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s). § Construct an argument with evidence to support a claim. (K-ESS2-2)
	2. Cross-Cutting Concept(s): Patterns in the natural world can be observed, used to describe phenomena, and used as evidence (K-ESS2-1)

- 3. Disciplinary Core Idea: K-EES2- Earth's Systems
 - ESS2.D: Weather and Climate: Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. (K-ESS2-1)
 - ESS3.C: Human Impacts on Earth Systems:
 Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (secondary to K-ESS2-2)

Goal(s) of the Lesson

List 1-3 realistic, measurable goals for this lesson, connected to content standards, students' academic & learning needs

- 1. Students can describe how snowfall happens.
- 2. Students can identify different textures and use extended vocabulary words to describe their feelings. Ex: "soft", "course", "smooth", "rough", etc.

Assessment of Lesson Goals

Describe explicitly how the teacher will assess each goal. Match each goal to an assessment.

- 1. Students will describe how snowfall happens in a class discussion.
- 2. Students will describe the science experiment, the textures they felt, and their overall learning in a group discussion, using extended vocabulary words "soft", "course", "smooth", "rough", etc.

Instructional Methods & Strategies (Consider: introducing content, modeling new knowledge, guided practice, independent practice, differentiation, progress monitoring)

Introduction:

- -Engage Students.
- -Preview the goals for the lesson.
- -Connect to prior learning.

1. Engage Students:

- The Teacher Will (TTW): gather the students on the carpet or at the table and lead a discussion: "Has anyone ever played with snow? What does it feel like?"
- TTW: Show a picture of snow and ask: "What color is snow? What do people do when they play in the snow?" "Where does snow come from?"
 - Students will raise their hands during the discussion and share their thoughts with the class.
- TTW: play a short video about how snowfall occurs
- https://youtu.be/7AeiwLhFuFQ?si=MEC7jk4VOzJ h4ZhP
- TTW: give a short introduction of the lesson to get students engaged and excited. "We are going to be talking about how snow is formed, describing it, and making our own fake snow". "We're going to make our very own snow that we can play with, even if it's warm outside!". "We're going to mix two things together to make snow. You will get to touch, mold, and shape it, just like real snow!"
 - Students will be at the class rug still following the playing of the video. They will listen to the introduction given by the teacher.

3. Connect to Prior Learning:

- TTW: Ask "Do you remember when we mixed water and dirt to make mud? Today, we are mixing shaving cream and baking soda to make something else — snow!"
- TTW, do a short refresher on how rain occurs. And explain how snow is similar but different.
 - Students will take 30secs-1min to partner share and try to brainstorm how rain occurs. Students will raise hand to share out when the teacher calls the group back together.

Instructional Procedures:

List step by step description of what the teacher will do and say.

1. Setting Up (2-3 minutes)

- TTW: Have students return to their desks where the supplies will be laid out. (bowl and spoon). The instructions are "please calmly return to your desk. DO NOT TOUCH ANYTHING. These are special chemical materials so we need to take care of them and use them responsibly.
 - The students will return to their table groups where they will be sitting next to their partner (per assigned by the teacher- the student next to them at their table group)
- TTW: explain "We're going to mix two things together today—baking soda and shaving cream—and when we do, it will feel like snow!"

2. Demonstration (3-4 minutes)

- TTW show the materials over the overhead camera to the students: "This is baking soda—it's soft and powdery. And this is shaving cream—it's fluffy and foamy."
- TTW demonstrate how to add a small amount of baking soda into a bowl (about ½ cup) and then spray shaving cream on top (enough to make it fluffy).
 - Students will be at their desks with their partner observing.
- TTW ask: "What do you think will happen when we mix them together? Tell your partner."
 - Students will share with their table groups what they think will happen.

3. Making (5-7 minutes)

- TTW go around the tables adding ½ a cup of baking soda to their bowls. Then assist them in spraying a good amount of shaving cream over it.
- "Now it's time to mix! Use your hands or a spoon to stir everything together."
 - As they mix, ask questions like:
 - "What does it feel like?"
 - "Does it feel soft or hard?"
 - "Does it look like real snow?"

4. Play Time (5-7 minutes)

- Give the children time to explore their "snow" mixture:
 - Encourage them to mold it into shapes or make tiny snowballs.
 - Optional: Add glitter or small plastic snowflakes to the mixture to enhance the sensory experience.
- Say: "You can play with the snow and make anything you want—snowmen, snowballs, or just feel how soft it is!"

Expectations will have been laid out for the students that the "snow" is to stay in the bowl the entire time. This is an activity that would be best completed with newspaper or some other type of base layer on the tables beforehand.

Closure:

Review lesson goals & Connect to future lessons

Assessment

- TTW: have students clean up the activity and take turns washing hands.
 - After students have cleaned up and washed their hands they will find a book to read and wait for further instructions.
- TTW: have all students come to the rug and regroup once everything is put away and square.
- TTW: prompt the students: "What did we do today?"
 - Guide them to respond with something like: "We made snow by mixing shaving cream and baking soda."
 - Students will answer with a raised hand.
- TTW Reinforce the learning: "We learned that when we mix different things together, they can make something new—our fake snow!"
 - How does snowfall happen?

Assessment:

- Observation: Throughout the activity, observe each child's participation:
 - Are they actively engaged in mixing the materials?
 - Are they describing the texture or changes they see?
 - Are they using vocabulary like "soft," "fluffy," "snow"?

Verbal Reflection: Ask students to share how the snow feels and looks: Look for responses like: "It's soft!" "It feels cold!" or "It's like real snow!"

List Materials for Students: 1lb of Baking Soda, Shaving Cream, 2 drops of Lavender essential oil

List Materials for Teacher: Projector, same materials as students