

Instructional Unit: Weather

Nicole Merkel, Alexis Ribakoff, Aleeya Culhane

Chapman University

MACI 312

Tara Barnhart

November 17, 2020

Universal Design for Learning Lesson Plan

Based on Reblate, 2016

Week 1 Day 1 Lesson Plan: What is Weather and Introduction to Vocabulary		
Grade: Kindergarten		
Lesson Goal: By the end of the 40-minute lesson, students will be able to name and identify the different types of weather patterns, the components of weather, and what weather is through discussion, four corners, and a worksheet activity.		
Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time CCSS.ELA-LITERACY.SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood.		
Estimated Time: Two twenty minute sessions (session break after instruction)		
Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Ask: students to come sit on the carpet with their hands in their laps and eyes up front Say: “Today class we are going to be talking about weather” Display: a piece of chart paper on the board Write: the question “what is weather?” large on the piece of paper Ask: the students to silently think back about what they know about weather Ask: students the question “what is weather” Give: students the sentence starter of “I think weather is...” Have: students to raise their hand and say what they think weather is Call: on as many students as wanted (5-7) to answer the question</p>	<ul style="list-style-type: none"> ● Sit on the carpet with hands in lap and eyes on front ● Actively listen to the teacher ● Silently think about what they know about weather ● Raise hand to answer the question ● Answer what your idea of weather is if called on 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Highlight Patterns: by asking students to do the proper seating for active listening on the carpet <p>Representation:</p> <ul style="list-style-type: none"> ● Offer Visual/Auditory Alternatives: by having the question and answers written as well as said auditorily ● Activate Background Knowledge: By asking students what they previously know about weather and the types of weather

<p>Write: student answers on sticky notes and paste them around the question</p> <p>Organize: them by type of responses (for example, definitions, types of weather, weather phenomena, etc.)</p> <p>Explain: why you are putting each response together</p> <p>Say: “Thank you for sharing your ideas about weather, we are now going to take a closer look at what weather is”</p>		<p>Action and Expression:</p> <ul style="list-style-type: none"> ● Develop Self-Assessment and Reflection: By implementing this pre-assessment students and the teacher can see what they already know about the subject
<p>Instruction</p> <p>Tell: students that weather is the way that the air and sky are outside are like and that there are many different types of weather.</p> <p>Connect: the definition of weather to a students response that’s written on the chart paper. (For example, if one student says weather is sunny, explain how sunny is a type of weather since it is how the sky looks)</p> <p>Say: “Sunny (a previous response example) is an example of type of weather, and there are many other types as well.</p> <p>Ask: students to think, pair, share, to answer the question “What other types of weather do you know of”</p> <p>Give: the students the sentence starter of “ a type of weather is...”</p> <p>Call: on groups of students with their hands raised and have them share their ideas</p> <p>Display: cards the name of the types of weather that they say</p> <p>Explain: That cloudy, sun, partly, cloudy, snow, rain, and windy, are the six types of weather we are going to focus on these next two weeks</p> <p>Show: Printed out pictures displaying each type of weather</p> <p>Ask: one student to come up to the</p>	<ul style="list-style-type: none"> ● Actively listen to the teacher ● Think about a different type of weather ● Pair up with a elbow partner sitting next to them, and share your idea ● Choose an idea between the two of you to share out with the class ● Raise hands with partners ● When called on share your example of a type of weather ● Walk up to the board and observe the image ● Explain what you observe that may lead you to deciding which type of weather fits the image ● Match the image with the type of weather 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: By using the think pair share instructional strategy so students can express and see others ideas and discuss with a partner <p>Representation</p> <ul style="list-style-type: none"> ● Guide Information Processing- by adding images that match the vocabulary, and having students observe and explain why they believe the image aligns with the term ● Clarifying Vocabulary: By adding images that coincide with the vocabulary to provide context <p>Action and Expression</p> <ul style="list-style-type: none"> ● Guide

<p>board Ask: the student what they believe is happening in the photo and can see Give: students the sentence starter: I see _____ happening, and that's why it's _____ Have: the student match the image with the weather type that they believe it is. Explain: why that image matches the term (for example, in this image you can see rain falling, and puddles, so it must be raining). Continue: until all the types of weather have images connected to them</p>	<ul style="list-style-type: none"> ● Return to seat 	<p>Information Processing and Visualization: Connecting the words and types of weather to images and having students note how they're shown in the images.</p>
<p>Guided Practice Have: one type of weather (rainy, sunny, cloudy, partly cloudy, snowy, windy) posted in six different areas in the classroom (corners and walls) Tell: students that we are going to be playing four corners with the new vocabulary we learned about the types of weather Point: out where each word is in the classroom Explain: to students that "I will be saying a sentence about the types of weather, and you will walk to the area with the type of weather that you feel fits. Ask: students if they understand, and if so to stand up Show: The first prompt on the screen Say: My first sentence is "Go to your favorite type of weather." Continue: with the activity using the prompts, and displaying them on the screen: -This type of weather makes my clothes wet -This type of weather is great to go to the beach in -This type of weather is great to go</p>	<ul style="list-style-type: none"> ● Listen quietly to directions ● Look at each corner with a term in it when the teacher points to it ● Stand up if the directions are understood ● Listen to the statement of the teacher ● Walk to the corner that seems fit ● Continue to listen to each statement and walk to the corresponding corners ● Walk to the window ● Observe the current weather outside ● Walk to the corner that fits the weather that it is currently outside ● Raise hand to 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Enhance Relevance, Value, and Authenticity: By asking students to observe the weather outside and then choose the corresponding corner <p>Representation</p> <ul style="list-style-type: none"> ● Offer Alternatives for Auditory Information and Guide Information Processing and Visualization: by presenting the prompts on the screen as well as as saying it out loud. <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Provide options for physical action: by allowing students to move around the room and express

<p>Skiing or sledding in -This type of weather messes up my hair</p> <p>Tell: students for this last question we are all going to start out by the window</p> <p>Ask: students to look out the window at what weather is outside currently.</p> <p>Say: “Go to the corner with the type of weather that it is currently outside”</p> <p>Ask: one student in each corner chosen why they chose their answer</p> <p>Tell: students great job, thanks for sharing, and that they can head back to their tables</p>	<p>answer question</p> <ul style="list-style-type: none"> ● Answer the question if called on ● Return to your table 	<p>themselves and ideas by choosing a corner</p>
<p>Assessment</p> <p>Tell: students that they will be handed out a piece of paper, and on this paper there will be the six different types of weather in pictures and in words.</p> <p>Direct: students that they will be labeling the correct weather type with the right image, and will be writing the word on the lines provided, and coloring the images</p> <p>Explain: that the words can be found in the word box at the bottom, and are still on the board</p> <p>Tell: students that they can either work together in pairs or on their own and begin</p> <p>Monitor: students as they work, and answer any questions if needed</p> <p>Collect: papers when finished</p>	<ul style="list-style-type: none"> ● Listen to directions carefully ● Choose whether to work with a partner or alone <ul style="list-style-type: none"> ○ If with a partner, find a partner ● Write the correct type of weather under each image ● Color images ● Ask questions if needed ● Turn in paper when finished` 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: By allowing for student to work together to complete the worksheet <p>Representation:</p> <ul style="list-style-type: none"> ● Guide Information Processing and Visualization: By giving students a word bank on the worksheet as well as keeping the other visuals and words listed on the board <p>Actions and Expression:</p> <ul style="list-style-type: none"> ● Optimize Choice-allowing students to choose whether

		they would want to work with a partner or alone
--	--	---

Name _____

Date _____

Types of Weather

Write each correct type of weather under each image and color the image.



1.



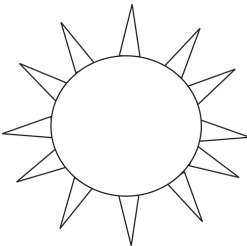
2.



3.



4.



5.



6.

Sunny Cloudy

WORD BANK

Week 1 Day 2 Lesson Plan: Daily Weather Tracker

Grade: Kindergarten

Lesson Goal: By the end of the 40-minute lesson, students will be able to complete a daily weather check-in during morning meetings, including weather type, temperature, rainfall, and will be able to track the daily weather in their weather journals for their summative assessment.

Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time
 CCSS.ELA-LITERACY.SL.K.6 Speak audibly and express thoughts, feelings, and ideas clearly.

Estimated Time: 40 minutes (15 minutes for filling out the daily weather report, give breaks if needed)

Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Have: all students join together on the carpet with iPads/Laptops Have: students log into a jamboard on their devices Pose: the question “How do we find out the weather for the rest of the week?” Read: the question out loud and ask students to answer it on the jamboard with any information that they know either typing or using speech to text Instruct: students to like and comment on other’s answers to create dialogue Write: sentence starters on the board: I agree with you because... I don’t agree with you My idea is the same/ different than yours</p>	<ul style="list-style-type: none"> ● Gather on the carpet with device ● Have appropriate carpet and technology etiquette ● Actively listen to the teacher ● Log onto the jam board ● Answer the question on the jam board ● Comment and like other students responses using the sentence starters ● Watch the video ● Raise hand and 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Enhance Relevance, Value, and Authenticity: by having students watch the local meteorologists weather report ● Foster Collaboration and Community: By using the think pair share so students can express and see others ideas and discuss with a partner <p>Representation:</p> <ul style="list-style-type: none"> ● Clarify Vocabulary: by having students give what their definition of a

<p>In my opinion..</p> <p>Read:some of the student answers outloud</p> <p>Explain: That we can learn the weather through daily weather report on the news by a meteorologist</p> <p>Tell: the students that we are going to now watch a meteorologist from the news tell todays weather</p> <p>Write: the definition on the jam board</p> <p>Play: the weather report from a local news station with subtitles on</p> <p>Ask: students to raise their hand and say what the weather was supposed to be today</p> <p>Choose: a few students to share</p> <p>Ask:students to think- pair-share with their elbow buddy to discuss what parts of the weather that they saw presented in the weather report.</p> <p>Have:them use the jam board to write or use speech to text to say the pieces of the weather that they saw</p> <p>Read:off some of the answers written that name the things that were seen, and emphasizing ones that the class will be focussing on. Choose responses from some students that may not share out loud as often.</p>	<p>say what the meteorologist said the weather was today</p> <ul style="list-style-type: none"> ● Think pair share with their elbow buddy what parts of the weather were reported in the video ● Either use text to speech or typing to write your pairs answers on the jam board 	<p>meteorologist is on the jamboard and then providing the actual definition</p> <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Offer Multimedia for Communication: allows students an opportunity to share their ideas when they may not like to share out-loud, and gives a platform for students to comment on each other's ideas.
<p>Instruction</p> <p>Tell: students that we are going to become meteorologists ourselves by tracking and predicting the daily weather</p> <p>Explain: how for our weather report we are going to be focusing on the type of weather it is outside, the amount of rain we've collected, the temperature, and our prediction for tomorrow's weather.</p> <p>Write: the different focuses on the</p>	<ul style="list-style-type: none"> ● Actively listen to the teacher ● Raise hand if you know what a thermometer is and what it does ● If called on explain what you know ● Count the numbers on the thermometer 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Increase goal importance: by explaining that we are each going to be meteorologists for a day and collect data on the daily weather <p>Representation</p> <ul style="list-style-type: none"> ● Activate Background

<p>board as you say them Explain:that we will have one student who is the meteorologist of the day, and they will be measuring those things and reporting it to the class during morning meeting Show:students a thermometer Ask:students if they know what it is and what it does Explain:how it measures the temperature outside, and the numbers give you the temperature Ask:students to count the numbers of the thermometer with you outloud chorally Show:students a rain gauge Ask:them if they can guess what it is used for Explain: that it is called a rain gauge and is used to measure the amount of rain collected overnight, and that each number is one centimeter of rain. Show: what one inch of rain looks like in the gauge Ask:students to count the numbers of the rain gauge with you outloud Tell:them that the meteorologist of the day will get to read and report the results from these tools.</p>	<p>outloud with the teacher chorally, repeating what they said</p> <ul style="list-style-type: none"> ● Raise hand if you know what a rain gauge is and what it does ● If called on explain what you know ● Count the numbers on the rain gauge out loud with the teacher 	<p>Knowledge: by asking students if they know what a thermometer and rain gauge is, and by having them count the numbers</p> <ul style="list-style-type: none"> ● Offer Alternatives For Auditory Information: by writing the components of the weather report as well as saying them out loud <p>Action and Expression</p> <ul style="list-style-type: none"> ● Provide Access to Tools: by having students use the jam board and speech to text technology
<p>Guided Practice Tell:students that we are going to be starting our daily weather check today Ask:“can someone raise their hand and tell me the things we are looking at during our weather check?” Point:to the parts on the board as the student names them Ask: students to move to the morning meeting area of the classroom Tell: the students that we are going to have our first daily weather report by our first meteorologist, and that we need everyone to listen closely to their weather report Choose: from a cup of sticks with all</p>	<ul style="list-style-type: none"> ● Raise hand and wait to be called on ● Say the different things we are looking at for our weather report ● Move to the morning meeting area ● Chosen meteorologist stand up and head to the front ● [Meteorologist] Place on 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Recruit Attention: having students hold up thumbs to respond to questions ● Optimize Autonomy:by having every student be the meteorologist for the day <p>Representation</p> <ul style="list-style-type: none"> ● Offer Alternatives for Auditory Information and Guide Information Processing and

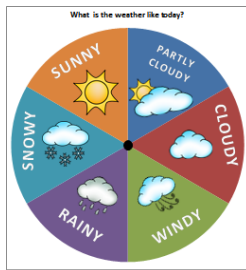
of the students name on them, one student to be the days weather reporter
Ask: them to come join you up at the front of the room

Ask: the student put on their meteorologist hat by copying your motion of putting on a hat

Have: the student ask the rest of the students to put on their meteorologist hats too

Tell: the student that the first part of the weather report is to describe the type of weather it is outside today

Have: them make an observation and clip the clothespin with the word today on the chart



Ask: the class to either give a thumbs up or a thumbs down if they agree with the weather type

Show: students the thermometer from outside and read them off the temperature on it, and write it in the corresponding section of the morning meeting station

Ask: the meteorologist if they think is cold or hot and for them to make a motion that represents their thoughts (Ex. Shiver for cold)

Ask: the class the same

Confirm: what the response is

Show: the rain gauge

Ask: the meteorologist to count how many centimeters it rained and report it to the class

Write: the number in the corresponding section

Ask: the meteorologist to predict what they believe the weather will be like

meteorologist hat, copying teacher

- Ask class to put on their meteorologist hat
- [Meteorologist] Make an observation about the weather outside
- [Meteorologist] Move the clothespin to the type of weather, and say the weather outloud
- [Class] Give a thumbs up if you agree with the weather, a thumbs down if not
- [Meteorologist] Say whether it is hot or cold out, and do a action to represent the thought
- [Class] Makes an action that they think matches the temperature
- [Meteorologist] Count out loud how many centimeters of rain was collected
- [Meteorologist] Make a prediction of tomorrow's weather and explain why
- [Meteorologist]

Visualization: by writing the temperature and rainfall, as well as having the meteorologist place clothespins on the visual to represent their forecast.

Action and Expression

- **Offer Multimedia for Communication:** By having the diagrams of the weather, and having visuals of the responses as well as speaking them. Students also use kinesthetic methods to respond by using the thumbs up and thumbs down, as well as actions to represent the temperature

<p>tomorrow, and explain why they think that</p> <p>Have: them place a clip labeled tomorrow’s prediction on the chart</p> <p>Ask: the class to give a thumbs up if they think the prediction will be correct, and a thumbs down if it won't be</p> <p>Choose: a student who agrees to share why they agree with the prediction, and one student who doesn’t agree and share their ideas why</p> <p>Provide: and point to sentence starters on the wall to remind students to use them that include: I agree with you because I think that it's different because</p> <p>Explain:how everyone will get a chance to be the meteorologist and we will be doing this everyday as part of the morning meeting</p>	<p>place the clip on the corresponding section of the morning meeting</p> <ul style="list-style-type: none"> ● [Class] Give a thumbs up if you agree with the prediction, a thumbs down if not 	
<p>Assessment</p> <p>Tell: students that each day after we finish morning meeting, we will be writing down the weather to form a weather journal</p> <p>Ask: students to listen with open ears to directions, and look up at the projector</p> <p>Pass: out the daily weather report</p> <p>Show: the report on the screen</p> <p>Explain: that students will be filling this out everyday based on what we learned during morning meeting</p> <p>Tell: them that they may choose to work with a partner, but each person needs to make an report daily</p> <p>Explain: The different parts of the report box by box, and what they need to do</p> <p>Ask: students to point to the box with you every time a new part is explained</p>	<ul style="list-style-type: none"> ● Listen to directions with open ears ● Look up at the projector ● Decide whether they want to work alone or with a partner ● Point and look at each box while the teacher explains the directions ● Ask any questions that you have ● Choose where to work in the classroom ● Complete the 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Optimize Choice: by allowing students to choose to work alone or with someone, and where to work at ● Enhance Relevance, Value, and Authenticity: By having them keep tract about the daily weather, as well as having them choose what clothes they would wear based upon the weather <p>Representation:</p> <ul style="list-style-type: none"> ● Offer Alternatives for Auditory Information and

<p>Display: a finished weather report as an example Ask: if students have any questions Remind: students that the answers are on the morning meeting wall Tell: students that they can choose where they want to work and can begin Monitor: students as they work, reminding them where answers are, and answer questions if needed Give: oral feedback on their reports as they are filling it out, complementing what they are doing well, and suggesting changes Have: students place their finished report in their folder at their table when done</p>	<p>daily weather report, coloring and following the directions in each section of the report</p> <ul style="list-style-type: none">● Reference the morning meeting wall for the answers● Place the finished report in your personal folder on your table.	<p>Guide Information Processing and Visualization: by having the instructions on the report, and projecting it while reading each instruction outloud and explaining each box.</p> <p>Actions and Expression:</p> <ul style="list-style-type: none">● Provide Graduated Scaffolds and Practice: by showing students a model of the completed report, reminding the posted answers, and having them fill them out each day
---	--	--

Name: _____

Date: _____

My Daily Weather Report

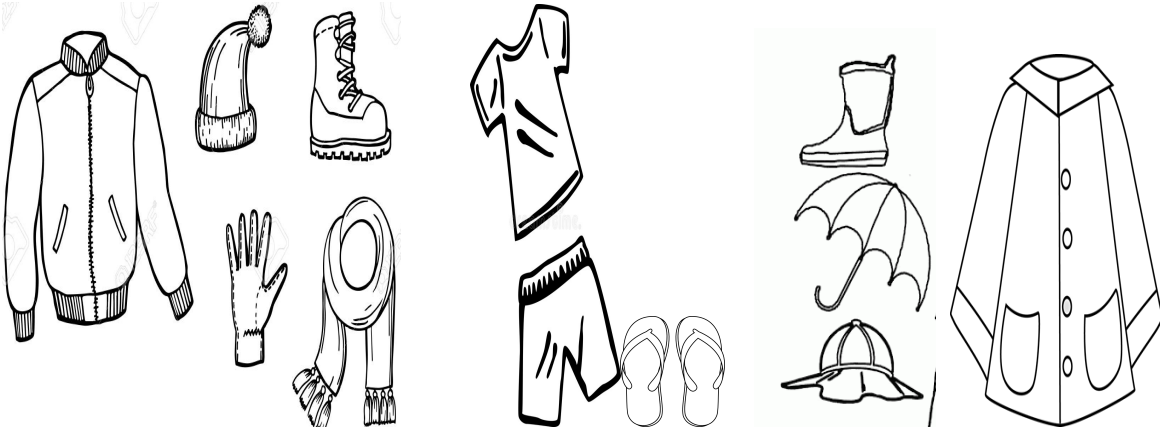
The sky looks like this:

(Draw a picture of the weather outside)

Today is:

(Name the type of weather that is happening)

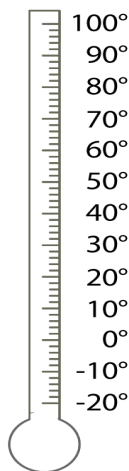
Today is a good day to wear: (color the best choices, draw in any that are missing)



The thermometer says it's _____

Degrees.

(Color the thermometer to the temperature)



Today's rain is:

_____ cm



I predict the weather tomorrow will be: _____

<p>Grade: Kindergarten</p> <p>Lesson Goal: By the end of the 20-minute lesson, students will be able to measure temperature , understand how temperature changes throughout the day, and how temperature is related to weather through measuring the temperature of ice water, room temperature water, and water left in the sun in addition to an interactive read-aloud.</p> <p>Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time CCSS.ELA-LITERACY.W.K.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</p> <p>Estimated Time: 20 minutes</p>		
Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Say: Good Morning Friends! I want everyone to go to their table groups (desks) and sit like scientists! Today we are going to be learning more about temperature. Ask: Can anyone tell me what they remember from our conversation about temperature before? Call: on random volunteers to share their idea with the class. Tell: provide (kindergarten) definition of temperature Say: Now that we have worked together to review what temperature is, I want you to silently take a minute to think to yourself, how might temperature and weather be related? Give: students about 20 seconds to think about this question. Say: Now I want you to turn and share your ideas with a partner. Discuss, how might weather and temperature be related?</p>	<ul style="list-style-type: none"> ● Students are sitting quietly at their desks ready to listen and learn. ● Students respectfully participate in class discussion by sharing ideas and listening to peers. ● Students will take 20 seconds to think to themselves how temperature and weather are related. ● Students will share their ideas with a partner and collaborate to find an answer. ● Randomly selected groups of students will share their ideas with the class. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: By using the think pair share instructional strategy so students can express and see others ideas and discuss with a partner ● Foster Collaboration and Community: Use Equity sticks to ensure an equal chance and avoid bias. <p>Representation:</p> <ul style="list-style-type: none"> ● Activate Background Knowledge: By asking students what they already know about temperature. <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Develop Self-Assessment and





<p>Do: circulate the classrooms while students discuss in groups.</p> <p>Pull: name sticks randomly to pick 2-3 groups to share their ideas.</p> <p>Ask: Now that we know what temperature is, what are some ways that we could test temperature? How would knowing the temperature help us?</p>		<p>Reflection: By implementing this pre-assessment students and the teacher can see what they already know about the subject</p>
<p>Instruction</p> <p>Say: Now, we are going to work in table groups to find and create different temperatures.</p> <p>Give: each table</p> <ul style="list-style-type: none"> ● four clear plastic cups, 16 oz ● ice ● warm water ● refrigerated water ● one thermometer ● one permanent marker ● recording sheets, one for each student <p>Do: test experiment prior to class to ensure the timing works correctly.</p> <p>If: It is a cloudy day, manually warm up water in a microwave.</p> <p>Say: Together, we are going to make ice water, room temperature water, and warm water.</p> <p>Show: how to use and read a thermometer.</p> <p>Say: First, you are going to take the ice and put it in your first cup of water. You are each going to take turns passing that cup around and measuring the temperature with your thermometer. Once you have measured the temperature, I want you to write it down on your sheet.</p> <p>Say: Next, I want you to measure the room temperature water and write down your findings on your sheet.</p>	<ul style="list-style-type: none"> ● Students will carefully and quietly return to their desks to work with their table groups. ● Students will silently give full attention while the teacher is modeling how to use and read the thermometer. ● Students will work with table groups to use the at a time to measure the temperature of the ice water ● Students will record findings on the data sheet. ● Students will use the thermometer one at a time to find the temperature of the room temperature water. ● Students will record findings on their data sheet. ● Students will 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Communication: Cooperative learning in teams. Students work together to find the different temperatures. <p>Representation:</p> <ul style="list-style-type: none"> ● Guide Information Processing, Visualization, and Manipulation: Teacher models step by step how to do and complete the experiment. Students follow step by step until done. <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Provide Options for Physical Action: Allow students to explore different areas outside of the classroom to find various temperatures.

<p>Say: Last, We are going to take our two cups of room temperature water outside, I want you to put one directly in the sun, and one in the shade. After 10 minutes, I will tell you to measure the temperature of both cups and write down what you find.</p> <p>Take: students outside to place their last two cups of water.</p> <p>Set: a timer for 10 minutes. Once the timer goes off, alert the students that it is time to find the temperature of the water outside.</p> <p>Take: the students back to the classroom.</p> <p>Say: Okay friends, I want everyone to return to their seats. Take a few minutes to write down any data you haven't yet or any additional ideas you came up with during that activity. Once that is done please go sit quietly on the carpet.</p>	<p>quietly follow the teacher outside and work with their table groups to find one spot in the sun and one spot in the shade to place their cups of water.</p> <ul style="list-style-type: none"> ● After 10 minutes students will record the temperature of each cup using the thermometer. ● Students will politely and quietly follow the teacher back inside the classroom. ● Students will log their findings and sit quietly on the carpet ready to learn. 	
<p>Guided Practice</p> <p>Say: Now we are going to read “Temperature: heating up and cooling down” by Darlene Ruth Steele.</p> <p>Read: Temperature: Heating up and Cooling Down.</p> <p>Stop: at specific points throughout the book and allow for think, pair share of what is happening in the story or what might happen next.</p> <p>Ask: a few students to share their ideas and answer thought provoking questions.</p> <p>Finish: reading the book.</p> <p>Ask: students to share something new they learned from the story.</p> <p>Select: 2-3 students to share.</p> <p>Say: Now I want you to get back into your table groups, split up into two pairs. I want one pair to double check your data for the ice water and room</p>	<ul style="list-style-type: none"> ● Students will actively listen and engage in an interactive read aloud of “Temperature: heating up and cooling down” by Darlene Ruth Steele. ● Students will kindly and collaboratively think, pair, share with a partner. ● Students will volunteer to share ideas with the class. ● Students will split up in table groups 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Optimize Relevance, Value, and Authenticity: Thinking beyond the text. Guided questions throughout the reading encourage students to actively listen, infer, synthesize information, and make connections as a class. <p>Representation</p> <ul style="list-style-type: none"> ● Offer Alternatives for Auditory Information: Interactive class

<p>temperature water temperature. The other pair is going to go outside and check the warm water in the shade and in the sun. Once you are done write down your final temperature data.</p>	<p>in order to do one final check of water temperature data.</p>	<p>read-aloud. Allows students to think critically and engage in their own learning.</p> <p>Action and Expression</p>
<p>Assessment Tell: now that we are done finding out data, I want you to open your weather journal. In your weather journal I want you to draw a picture of what we did and what the results were. Students: may glue their data sheet in their journal. Provide: sentence starters Give: students time to write in journals. Say: Okay friends, once you wrap up your writing in your journals I want you to find a spot in the classroom with your floor partner and share what you wrote and the picture that you drew in your journal. Give: students time to share their work with their floor partner. Say: Now I would like everyone to quietly return to your seats. Can I get 3 volunteers to share their work with the class? Select: 3 volunteers. One by one, have each of the chosen students sit in the teachers chair at the front of the class and share their work. Encourage the other students to ask clarifying questions.</p>	<ul style="list-style-type: none"> ● Students will record data and draw a picture to describe what we did and what they learned. ● Students will find a spot of their choice in the classroom with their floor partner. ● Students will share their drawings and data with their floor partner. ● Students will quietly return to their seats ready to listen. ● Students will engage by sharing ideas and work. ● Students will actively listen to peers and ask clarifying questions. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Recruiting Interest: Alternative seating. Let students choose a spot in the classroom to share ideas with their floor partner. <p>Representation:</p> <ul style="list-style-type: none"> ● Offer Alternatives For Auditory Information: by writing the components of the weather report as well as saying them out loud <p>Actions and Expression:</p> <ul style="list-style-type: none"> ● Use Multiple Media for Communication: oral presentation: have students orally present their work and findings. Allow for clarifying questions to gain full comprehension.

Name: _____

Let's Record Temperatures

	_____ temperature of water
	_____ temperature of <u>ice</u> water
	_____ temperature in the shade
	_____ temperature in the sun

Week 1 Day 4 Lesson Plan: Sun

Grade: Kindergarten

Lesson Goal: By the end of the 20 minute lesson, students will be able to observe and understand the patterns and characteristics of sunny weather. Through concrete examples, observations, predictions, group collaboration, use of adjectives and describing words, activating background knowledge, and partner work students will understand the effects the sun has on the world around us.

Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time

CCSS.ELA-LITERACY.SL.K.1 Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.

CCSS.ELA-LITERACY.W.K.8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

Estimated Time: 20 minutes

Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Say: “Hello everyone! Could everyone please take a seat in the front of the room? Today we are going to talk about the Sun.” Ask: “Can anyone tell me where the sun is?” (Correct Answer: in the sky) Ask: “What does the sun do?” (Correct Answer: creates heat and provides light) Ask: “What happens if you stay out in the sun for too long?” (Correct Answer: you will burn, get too hot, sweat, etc) Ask: “Does anyone know what happens when other things stay out in the sun for too long?”</p>	<ul style="list-style-type: none"> ● Students will come into class and sit down on the carpet and patiently wait for further instructions. ● Students will answer the anticipatory opening questions about what they already know about the sun and its purpose. ● Students will get handed raisins and grapes and will be able to observe their differences and similarities. ● Students will not eat either the raisins of the 	<p>Engagement: Students' interest will be recruited by asking them questions about the sun and showing them a physical example of what happens to a grape when it's left out in the sun.</p> <p>Representation: The teacher will offer ways of customizing the display of information by providing students with an example of the sun's power with grapes and raisins.</p> <p>Students will activate background knowledge by being asked questions about what they already know about the sun based on their experiences.</p>

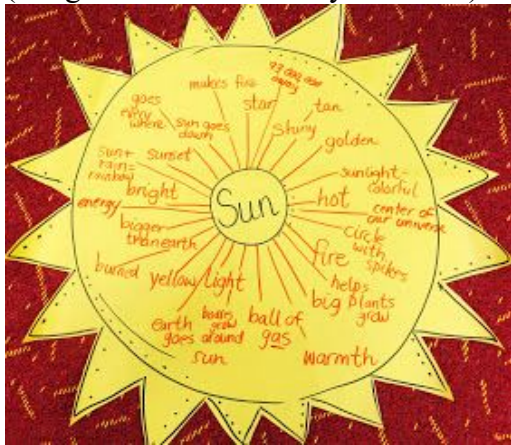
<p>Ask: “What do you think will happen if ice goes in the sun?” (Correct Answer: melt)</p> <p>Say: “Sometimes when things go out in the sun they turn into something different. I am going to pass around some grapes and raisins. Please do not eat them.”</p> <p>Do: Pass around a few grapes and raisins for the students to see.</p> <p>Ask: “What do you notice about the grapes and the raisins? What's different and what's similar about them?”</p> <p>Ask: “Did you know that grapes and raisins are the same thing? How do you think a grape turns into a raisin?” (Correct Answer: they are put out in the sun)</p> <p>Ask: “Do you know of any other things that change shape or change completely when left out in the sun for a long time?”</p> <p>Say: “When left out in the sun for too long, grapes turn into raisins. We now are going to look at a bunch of different examples of this with other objects and see what happens when they are in the sun for a long time.”</p>	<p>grapes.</p>	<p>Action and Expression: Students will use physical action by holding and examining the grapes and raisins to see their differences and similarities in regards to how the sun did/ did not affect them.</p>
<p>Instruction</p> <p>Say: “Okay, now we are going to do a group activity. I am going to write the word “Sun” on the board and I want you to tell me things about the sun.”</p> <p>Do: Draw a sun on the board and write the word sun in the middle. Draw about 10 triangle rays coming off the sun. Ask the student adjectives about the sun and write them in the rays of the sun and in the circular part of the sun.</p> <p>Ask: “What are some ways to describe</p>	<ul style="list-style-type: none"> ● Students will stay on the carpet and be actively engaged in the sun adjective activity. ● Students will participate and give their teacher adjectives about the sun and the sun's purpose. 	<p>Engagement: Students and the teacher will optimize community collaboration by having all students add and participate in adding words and ideas to the classwide sun adjective diagram.</p> <p>Students will optimize individual choice and autonomy by thinking of their own answers and</p>

the sun? (Correct Answer: hot, fire, warm, bright, yellow, sunset, light, etc.)

Do: Continue to ask questions until the majority of the sun is filled up with describing words.

(Kind of like the picture below)

(Image from Teachers Pay Teachers)



adding their own ideas to the sun diagram.

Representation

The teacher will offer ways of customizing the display of information and offer alternatives for visual information by putting the sun's adjectives in an illustration of the sun.

The classwide sun adjective diagram will clarify vocabulary and symbols about the sun and its purpose and promote understanding across languages by providing an illustration.

Students will activate background knowledge when thinking about different ways to describe the sun and its function.

Action and Expression

The teacher will use multiple tools for construction and composition by using a sun illustration to help understand the sun's function.

Guided Practice

Say: “Okay everyone, now we are going to do a fun activity outside. I am going to give you and a partner a worksheet with a bunch of different objects on it. We are all going to go outside and I am going to put all those objects out in the sun and we are going to wait and see if they melt. After a few minutes, you and your partner will

- Students will get with a partner and get a worksheet about objects melting in the sun.
- Students will fill out the second column about their melting predictions with their partners

Engagement:

Students will optimize individual choice and autonomy by choosing who to work with and predicting what objects may or may not melt.

Students will foster collaboration and

walk around and look at all the objects to see if they melted and write down if they did.”

Do: Give students the worksheet and a pencil and have them get into partners.

Name _____

Item	Do you think it will melt? <small>Yes or No</small>	Did it melt? <small>Yes or No</small>
lego		
crayon		
butter		
penny		
paper clip		
ice		
soap		
marshmallow		
rock		
block		
marble		
chocolate		

Created by 123456789

Say: “First, I want you and your partner to fill out the second column and write predictions if you think those objects will melt in the sun.

Ask: “Why do you think those objects that you chose will melt in the sun? (students can write down their predictions with the word “because” if they feel comfortable and are able to do so)

Tell: Tell students to line up to go outside once they have answered that question.

Do: Take students outside and have them sit down with their partner. Once all the students are outside, you will put:

- 1 leggo
- 1 crayon
- 1 pat of butter
- 1 penny
- 1 paper clip
- 1 ice cube
- 1 bar of soap
- 1 marshmallow
- 1 rock

before going outside.

- Students will follow their teacher outside and observe the objects that have been put out in the sun for a few minutes.
- Students will then fill out the third column with what they noticed about the objects in the sun.

community by working with a partner.

Representation

The teacher offers alternatives for visual information through the use of observation of objects instead of pictures or videos.

Students will activate background knowledge in order to make accurate predictions about may/may not melt.

Action and Expression

Students will use physical action by going outside and observing the melting objects.

<p>1 little wooden block 1 marble 1 chocolate bar You will put these objects outside. The objects will be spread out from one another. Say: “Okay, since it's been a few minutes of observing all the different objects, I want you and your partner to go around and look at all the objects and choose 3 to focus on and record if they melted or not in the 3rd column of the worksheet.” Do: Make sure the students fill out the third column and give them assistance if needed. Do: Provide feedback for students as they work.</p>		
<p>Assessment Say: “Okay everyone, come back inside and take a seat on the carpet.” Ask: “So based on what the observation activity, what were some of the things that melted?” Ask: “What were some of the things that did not melt?” Use: Use sentence starters to prompt students answers. Use: Sentence starters such as, “I notice, This reminds me of, I wonder Could it be”. Ask: “Why did some things melt and not others?” Ask: “What happened to the items that did not melt, for example what happened to the leggo or the penny?” Ask: “Were there some things that you thought would melt that didn’t?” Ask: “Were there some things that you thought would not melt but did?” Say: “Some things like ice, butter, and the marshmallow melted because they are made of things called molecules that are easily broken down by heat. Objects like the penny or the lego are</p>	<ul style="list-style-type: none"> ● Students will come back inside and resume their spots on the carpet. ● Students will discuss what they learned and observed from the object melting activity. ● Students will understand why certain objects melted and why others didn't. ● Students will understand why their predictions might have been right/wrong. 	<p>Engagement: Students will increase mastery-oriented feedback and develop self-assessment and reflection by asking questions and understanding why objects did/did not melt.</p> <p>Representation: Students and teachers will highlight patterns, critical features, big ideas, and relationships between the sun and the melting of objects and why the sun does that to some objects and not others.</p> <p>Actions and Expression: The teacher will build students' fluency with graduated levels of support for practice and performance by engaging them in critical conversations and</p>

<p>made of materials that take in the heat and don't change the shape of the object.” Say: I want you to go home and tell your parents about one object that melted today in the sun that you did not think would.</p>		<p>fostering the asking of clarifying questions.</p>
---	--	--

Week 1 Day 5 Lesson Plan: Rain		
<p>Grade: Kindergarten</p> <p>Lesson Goal: By the end of the 20 minute lesson, students will be able to measure rainfall, understand the basic aspects of what rain is and its purpose. Through an interactive read aloud video about rain and a following activity where students are able to get into groups and make a rain jar, students will be able to completely understand the purpose of rain.</p> <p>Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time CCSS.ELA-LITERACY.RL.K.10. Actively engage in group reading activities with purpose and understanding. CCSS.ELA-LITERACY.RL.K.1. With prompting and support, ask and answer questions about key details in a text.</p> <p>Estimated Time: 20 minutes</p>		
Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Say: “Hello everybody, can everyone please come and take a seat on the carpet. Today we are going to be talking about rain!” Ask: “Has anyone seen rain before?” Ask: “What does the sky look like when it rains?” (Correct answer: dark gray, and not blue anymore) Ask: “What happens outside when it rains?” (Correct answer: it is wet outside) Say: I am now going to play a video of the book, <i>The Rainy Day</i>, and then we will talk about what we learned from the video!” Show Video: https://www.youtube.com/watch?v=av2FP2n2qrg</p>	<ul style="list-style-type: none"> ● Take a seat on the carpet and be ready for class. ● Answer questions about personal experiences of encountering rain, what it feels like, what they noticed about the sky when it rains, and what they noticed about what happens to the outside world when it rains. ● Students will be engaged when the read aloud video about a rainy day is being played. 	<p>Engagement: Students' interests will be recruited by asking opening questions that activate background knowledge about rain. Students will be able to connect to experiences that are meaning and valuable.</p> <p>Representation: The teacher will provide alternative ways to conduct a read aloud by offering it as a video. Likewise, the anticipatory set will be illustrated through multiple media such as videos.</p> <p>Additionally, this anticipatory test offers questions that activate</p>

		<p>background knowledge and guide information processing and visualization.</p> <p>Action and Expression: This anticipatory set uses multiple media for communication through the use of video engagement.</p>
<p>Instruction Ask: “What did you like about the reading?” Ask: “What did the sky look like when it was going to rain or it was raining?” Ask: “What happens when the clouds get too full of water?” Ask: “Do animals like the rain?” Why or why not? Ask: “Do plants like the rain?” Ask: “What kinds of clothes were the kids in the book wearing when it was raining? Were they wearing shorts and a tank top? Why?” Say: “These are all great answers. Like the book described, rain happens when the clouds get too full of water and they need to release that water.” Say: “Now we are going to do an activity where you will be able to see how rain falls.”</p>	<ul style="list-style-type: none"> ● Students will be able to answer questions about the video read aloud and see how they will connect to what we will be learning in the guided practice activity. ● Students will watch/observe their teacher demonstrate the rain jar activity they will help if asked to. 	<p>Engagement: Students will optimize relevance, value, and authenticity by answering follow up questions about the virtual read aloud video that are relevant to understand the purpose of rain.</p> <p>Representation The teacher will be able to clarify any unknown vocabulary or concepts that was presented in the book through the activation of background knowledge. The teacher will help students to connect their background knowledge to the new information learned from the reading.</p> <p>Action and Expression The teacher will facilitate managing information and resources by asking clarifying questions about the reading video.</p>

<p>Guided Practice Say: “Everyone gather around the table at the front of the room and you are going to watch what happens when it rains.” Ask: “Can I get 11 volunteers to help me with this?” Say: “First, I am going to put hot water into the jar. Then, I am going to have one of you put the paper bowl on top of the jar.” Say: “Next, I am going to ask five of you to put 10 ice cubes in that bowl that's sitting on top of the jar. You each get 2 ice cubes.” Say: “Now, we are going to observe what happens to the ice cubes and the jar of hot water.” Ask: “What is happening to the ice?” Ask: “What is happening in the jar?” Ask: “What do you notice?” Ask: “What do you think is happening here?” Ask: “Does anyone know what is happening?” Ask: “Does anyone know why this is happening?” Explain: The plate seals the warm air in the jar. Once the ice is added to the plate, the cold temperature causes moisture and water droplets are formed. This is the same thing that happens when it is raining outside. Moist air rises and meets colder air in the sky which causes rain, snow, or even hail. Warm air can hold more water than cold air so when air gets cold the air has to let go of the water and you get droplets.</p>	<ul style="list-style-type: none"> ● Students will gather around the table in the front of the room and watch their teacher conduct a rain experiment. ● Students will volunteer to help their teacher with the experienced. ● Students will observe what happens during this experiment. ● Students will answer questions during the experiment to test their understanding. ● Students will be able to comprehend why what happened in the experiment connects to what happens in the real world. 	<p>Engagement: The teacher will promote autonomy and choice by asking for volunteers to help with the experiment. Distractions will be minimized by having students actively work with their teacher to complete the experiment as well as foster community collaboration.</p> <p>Representation Students will be able to understand highlighted patterns, critical features, big ideas, and relationships about rain and how the experiment that's being conducted connects to real rain.</p> <p>Action and Expression Students will be able to physically help their teacher with the rain jar experiment and are able to get up and view the experiment from different angles.</p>
<p>Assessment Closing: Say: “Alright students, great job participating today.”</p>	<ul style="list-style-type: none"> ● Students will tell their teacher what they learned today. ● Students will answer questions 	<p>Engagement: Students will be able to optimize relevance, value, and authenticity about rain and what they learned about rain during class</p>

<p>Ask: “Can someone tell me what they learned today?”</p> <p>Ask: “Where does rain come from?”</p> <p>Ask: “How is rain formed?”</p> <p>Ask: “Did we see this happen with our rain in a jar activity?”</p> <p>Ask: What happens when it rains? What is it like outside?</p>	<p>about what happened today during class and during the experiment.</p>	<p>today through the anticipatory set and the guided practice.</p> <p>Representation: Students will gain comprehension skills based on both the class experiment and activity in the anticipatory set. Therefore, students will be able to highlight patterns, critical features, big ideas, and relationships about rain through the questions and answers of this closing activity.</p> <p>Actions and Expression: Through the use of closing questions facilitated by the teacher, the students will be able to use executive functions to develop plans and ideas to make the most out of the information they learned.</p>
---	--	---

Week 2 Day 1 Lesson Plan: Cloudy

Grade: Kindergarten

Lesson Goal: By the end of the 20 minute lesson, students will be able to understand what a cloud is and what it’s purpose is, and be able to identify the different types of clouds through cloud observation and labeling worksheets. Students will also think-pair-share with a partner on what they learned about clouds and share their favorite types of clouds.

Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time
CCSS.ELA-LITERACY.L.K.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.
CCSS.ELA-LITERACY.W.K.8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

Estimated Time: 20 minutes

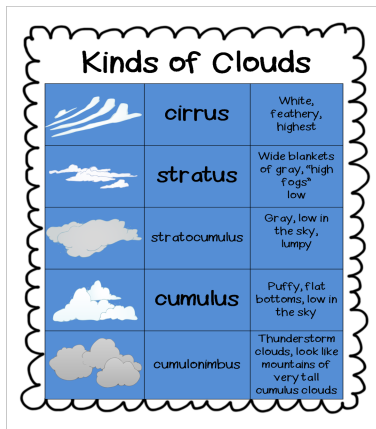
Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Say: “Hi everyone, please come take a seat on the carpet! Today we are going to learn about clouds.” Ask: “Can anyone tell me about clouds? What do they look like?” (Correct answer: fluffy, white, gray, big, small, etc.) Ask: “Do all clouds look the same?”(Correct answer: No) Ask: “Where do clouds live?” (Correct answer: the sky) Ask: “What do clouds make?” (Correct answer: rain, snow, hail, etc.) Ask: “What color are clouds?” (Correct answer: gray or white)</p>	<ul style="list-style-type: none"> • Students will come into the classroom and sit on the carpet. • Students will answer the prompted questions about clouds from their teacher to activate background knowledge and get them to understand what the lesson of the day will be about. • Students will be engaged while their teacher is 	<p>Engagement: Students' interests will be recruited through asking questions about what they already know about clouds.</p> <p>Representation: Teacher will clarify vocabulary and symbols of the different types of clouds and their scientific names.</p> <p>Students will activate background knowledge about what they already know about clouds based on their personal experiences.</p>

Ask: “What do clouds do?” (Correct answer: hold water, shade, etc.)

Say: “Clouds are a collection of tiny water droplets. Water from things like oceans and rivers go up into the clouds, cools down, and then comes back to the ground. Some clouds make rain and snow and some provide shade by blocking the sun and keeping things cool.”

Say: “The purpose of all clouds are the same but not all clouds look the same. Each cloud is different from one another. I am going to show you the different kinds of clouds and you are going to repeat after me.”

Show:



(Image from Teacher pay Teachers)

Say: “Repeat after me! Cirrus. Is white, feathery, and the highest. What is white, feathery and the highest? Yes, a Cirrus cloud, very good job!”

(REPEAT this process for every type of cloud)

Do: Have them snap every time they successfully repeat after me.

showing them the different types of clouds on the board.

- Students will repeat after their teacher and will stay engaged in the anticipatory set about the different types of clouds.

Action and Expression: Teachers will use multiple tools for construction and composition of new ideas and concepts about clouds.

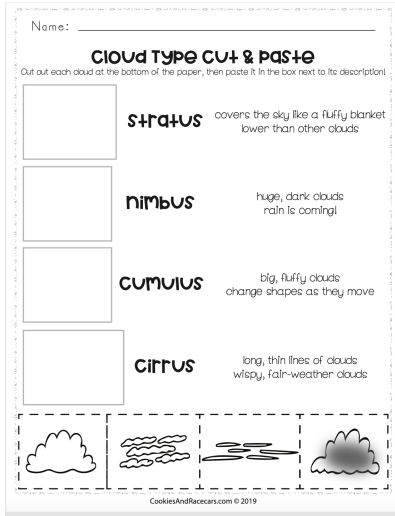
Instruction

- Students will go

Engagement:

Say: “Now I would like for everyone to go back to their seats and wait patiently for me to pass out a worksheet about the different types of clouds!”

Do: Pass out a worksheet about the different kinds of clouds.



Say: “You will complete one worksheet between two partners. You will take the different clouds in the baggy and glue them to which type of cloud you think they are.”

Do: Give every 2 students 1 worksheet, 1 baggy of the pre-cut types of clouds, and one glue stick.

Do: Go around the room and help students if they are having trouble figuring out which cloud illustration goes in its corresponding box.

back to their table seats and wait patiently for their teacher to give them the materials for the next activity.

- Students will get with their seat partner and take the 4 different types of clouds out of the bag and help each other to put the correct cloud with its correct type.
- Students will glue the clouds in the correct boxes.
- Students can ask for help from their teacher if they are confused about which cloud goes where.

Students will optimize individual choice and autonomy when working in pairs to complete the worksheet where they have to decide which cloud matches the appropriate definition.

The teacher will foster community and collaboration by having the students work in pairs to complete the worksheet.

Representation

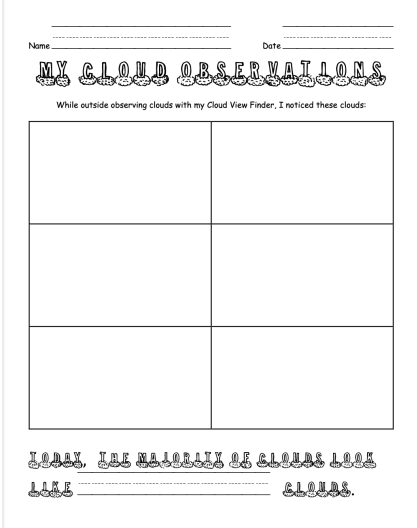
The teacher provides her students with the opportunity to customize the display of information by allowing them to choose how to display the different clouds on the worksheet.

The students are able to clarify vocabulary and symbols by connecting the correct picture with the matching definition.

Students are able to highlight patterns, critical features, big ideas, and relationships through connecting what they already know about real clouds to their scientific definition.

Action and Expression

Students will use physical action by cutting out and pasting the different types of clouds in their corresponding area.

<p>Guided Practice Say: “Great job everyone! Now we are going to take what we learned about the different types of clouds and do a fun activity outside.” Say: I am going to give each of you a worksheet that you will fill out outside as we look at the sky. When we get outside you will take a pencil and your worksheet and sit on the ground and look up at the sky. You will draw 6 different clouds you see as best you can.” Do: Give each student a cloud observation worksheet and a pencil.</p>  <p>Do: Lead the students outside and make sure they sit on the ground and look up at the sky to observe the clouds. Say: “Only draw 6 clouds, 1 in each box and do not fill out the bottom part just yet.”</p>	<ul style="list-style-type: none"> • Students will each get a worksheet and a pencil and take that outside to observe the clouds and fill out the cloud observation chart. • Students will sit on the ground outside and look up at the sky and draw what they see. They will draw 6 different clouds they see. • Students will wait to fill out the question on the bottom of the worksheet. 	<p>Engagement: Students are able to optimize relevance, value, and authenticity by taking what they just learned about clouds in the classroom and applying it to cloud observations outside the classroom.</p> <p>Representation By optimizing cloud observations, the teacher offered ways of customizing the display of information by allowing students to see the clouds firsthand outside.</p> <p>Action and Expression Students optimize physical action by going outside and participating in cloud observations and applying what they learned in class to what they see outside.</p>
<p>Assessment Say: “Now I want you to come back inside and sit on the carpet. I want you to then turn to a partner and discuss “The majority of clouds outside looked like...” and look at our chart of the different types of clouds on the board and decide which one most of the</p>	<ul style="list-style-type: none"> • Students will come back inside and sit on the carpet and answer the question on the bottom of the worksheet. They do not have to 	<p>Engagement: Students will foster community and collaboration by working with a partner during think-pair-share when discussing the last question on the worksheet.</p>

<p>clouds looked like.”</p> <p>Say: “Once you have done that, sit quietly until you are finished.”</p> <p>Ask: “Did everyone have fun doing this activity?”</p> <p>Ask: “Were all the clouds you saw in the sky different?”</p> <p>Ask: “Did any of the clouds you drew on your worksheet match the types of clouds we learned about earlier today?”</p> <p>Say: Not all clouds are the same and there are a bunch of different types of clouds in the sky which you all saw by walking outside.</p> <p>Alternative: if there are no clouds or all the clouds are the same I can show a video of different clouds and skip ahead through the video and pause at different clouds.</p> <p>https://www.youtube.com/watch?v=YgmLibSnZs0</p>	<p>write their answers to that question down but instead participate in think-pair-share with their person sitting next to them.</p> <ul style="list-style-type: none"> ● Once students are done discussing the last question on the worksheet in pairs, they will sit quietly and wait for further instructions. ● Students will answer follow up questions about what they learned today about clouds and be able to see how the different parts of the lesson connected to one another. 	<p>Students will develop self-assessment and reflection by discussing and thinking about what they learned today.</p> <p>Representation: Students will highlight patterns, critical features, big ideas, and relationships by discussing as a whole class what they learned today and applying it to the last part of the worksheet.</p> <p>Actions and Expression: Students will use expression and communication during the think-pair-share activity at the very end of class.</p>
--	--	---

Week 2 Day 2 Lesson Plan: Wind		
<p>Grade: Kindergarten</p> <p>Lesson Goal: By the end of the 20-minute lesson, students will be able to observe wind patterns and changes in wind direction through building their own weather vane and using it to analyze the day’s wind patterns in various outdoor areas.</p> <p>Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time</p> <p>Estimated Time: 20 minutes</p>		
Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Say: Hi friends! Can everyone please come take a seat on the carpet. Today we are going to be learning about wind! Say: First we are going to watch this short clip of wind in action! https://players.brightcove.net/2698740430001/default_index.html?videoId=6017795100001 Ask: After watching that clip, can anyone tell me what they think wind might be? (answer: it is air that is moving sideways) Tell: Turn and discuss with a partner. Give students time to think, pair, share. Ask: who has been outside before on a windy day? What did you see or hear? How did the wind feel?</p>	<ul style="list-style-type: none"> ● Students will sit down on the carpet quiet and ready for class. ● Students will watch the clip of wind in action. ● Students will answer prompted questions by raising their hand. ● Students will have a basic understanding of what wind is, what it looks like, and how it feels. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Highlight Patterns: by asking students to do the proper seating for active listening on the carpet ● Foster Collaboration and Community: By using the think pair share instructional strategies so students can express and see others ideas and discuss with a partner <p>Representation:</p> <ul style="list-style-type: none"> ● Activate Background Knowledge: By asking students what they previously know about wind. <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Develop Self-Assessment and

		<p>Reflection: By implementing this pre-assessment students and the teacher can see what they already know about the subject</p>
<p>Instruction Show: slideshow about what wind is and how it works. https://www.acs.org/content/acs/en/education/resources/k-8/inquiryinaction/kindergarten/wind.html Say: Wind is just air that is moving sideways. Air is actually made of extremely tiny particles called molecules that we can't see. Say: when you see leaves, a flag, or your hair moving in the wind, it's these tiny molecules that are making it happen. Ask: can anyone give me another example of things that wind can move? (trees, water, etc.) Ask: Can anyone give me an example of something that wind can not move? (a building, statue, house, etc.) Ask: Why can wind move some things and not others?</p>	<ul style="list-style-type: none"> ● Students will watch and engage in slideshow presentation. ● Students will answer prompted questions by raising their hands. ● Students will have an understanding of how wind moves and what creates wind. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Use Multiple Media for Communication: Students are exposed to visual cues through pictures and the video as well as verbal explanations of what snow is. <p>Representation:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: By using the think pair share instructional strategies so students can express and see others ideas and discuss with a partner <p>Action and Expression:</p> <ul style="list-style-type: none"> ● This anticipatory set uses multiple media for communication through the use of video engagement.

<p>Guided Practice</p> <p>Say: Now that we know what wind is, we are going to build our own weather vane!</p> <p>Ask: does anyone know what a weather vane is?</p> <p>Say: Turn to a partner and work together to figure out what you think a weather vane might be.</p> <p>Have groups share their ideas.</p> <p>Say: This is a tool used to help figure out which direction the wind is coming from.</p> <p>Show: example of already completed weather vane.</p> <p>Say: Now I need everyone to return to their desks/table groups while I pass out the materials for our project.</p> <p>Materials to pass out: Pencil with eraser, Two small pieces of cardstock (about 4" by 4"), Straw, Pin, Stapler, and a paper plate.</p> <p>Say: first we are going to pick up our pencil and draw a square on one piece of paper, and a triangle on the other. Once you are done drawing, cut out your square and triangle.</p> <p>Say: once you are done with this step quietly raise your hand and I will come help you staple your square and triangle to each end of your straw.</p> <p>Say: Once your square and triangle are stapled onto your straw I want you to use your pointer finger to find the middle of the straw.</p> <p>Show: balance staw on finger to model for the students.</p> <p>Say: Once you find the middle on your straw, you are going to stick the pin through the center of the straw.</p> <p>Say: Once you have gotten your pin through the straw you are going to stick it into the end of the eraser on your pencil. Make sure to leave some room between the pin and the eraser so that your weather vane is able to spin.</p>	<ul style="list-style-type: none"> ● Students will listen to instructions for activity. ● Students will help brainstorm ideas about what a weather vane might be. ● Students will look at the example. ● Students will carefully and quietly return to their seats. ● Students will follow the teacher step by step to create their own weather vane. ● Students will have a full understanding of what wind is, how it moves, and how to observe and analyze wind. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Guide Information Processing, Visualization, and Manipulation: students will watch the teacher model how to build a weather vane while also taking the steps to build their own. <p>Representation:</p> <ul style="list-style-type: none"> ● Offer Ways of Customizing the Display of Information: Students will build and use their own weather vane to measure the wind in their area that day. <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Students will physically build their own weather vane.
--	---	---

<p>Monitor: students as they work and answer any questions they may have or help with assembling weather vanes. Say: Now we are going to put that to the side and grab our paper plates. Say: We are going to label the different directions the wind could be coming from on our paper plates. (north, south, east, and west) Show: example of already completed paper plate “compass” Say: Once you have labeled your compass, stick the other end of your pencil through the center. Say: your weather vane is now complete!</p>		
<p>Assessment Say: Now that you have made your very own weather vane, we are going to take them outside and find out which direction the wind is coming from today! Say: everyone please line up single file and follow me out to the playground! Go: take students to the playground and have them test their weather vanes. Show: model how to use weather vane Say: Explore different areas of the playground to see how the wind pattern changes. Start to think about what might cause these changes in wind patterns. Monitor: students as they work answer any questions they may have. Ask: what is the wind like today? Which direction does your weather vane say the wind is coming from? Say: Okay class, now we are going to go back to the classroom. Once we get there I want everyone to quietly return to their seats and write down your findings in your weather journal! Take students back to class and have them fill out their journal for the day. End of lesson</p>	<ul style="list-style-type: none"> ● Students will listen for direction. ● Students will line up in a single file line and follow the teacher outside to the playground. ● Students will watch the teacher model how to properly use a weather vane. ● Students will practice using their weather vane. ● Students will collaborate through the activity and classroom discussion to find data about the wind. ● Students will follow the teacher back to the classroom. ● Students will record findings in 	<p>Engagement: Recruiting interest/ flipped classroom: letting the students explore outside in a new space in order to gain knowledge about the subject.</p> <p>Representation: Guide Information Processing and Visualization: model for students how to properly use a weather vane in nature and help them to use it independently.</p> <p>Actions and Expression:</p> <ul style="list-style-type: none"> ● Provide options for physical action: students are able to move freely around the playground while testing their weather vane in various locations to see the difference in wind patterns.

	<p>their daily weather journal.</p>	
--	-------------------------------------	--

Week 2 Day 2 Lesson Plan: Snow

Grade: Kindergarten

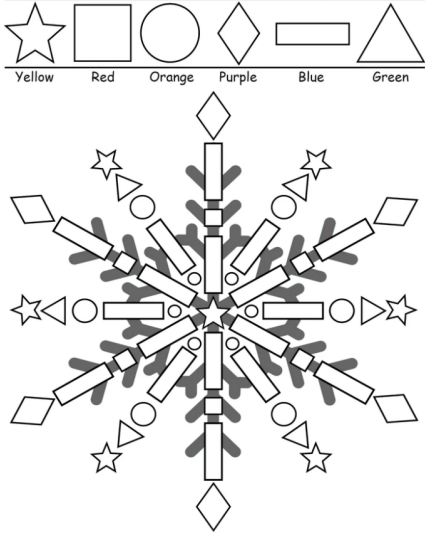
Lesson Goal: By the end of the 20 minute lesson, students will be able to explain when snow happens and the change in temperature it creates and what causes this through watching and listening to a song about snow, physically experimenting with “magic snow”, creating their own paper snowflakes, and writing down and sharing their thoughts with their peers.

Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time

CCSS.MATH.CONTENT.K.G.B.6 Compose simple shapes to form larger shapes.

Estimated Time: 20 minutes

Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Say: Goodmorning friends! Everyone please take a seat at your desk, today we are going to be learning about snow! Ask: Can anyone tell me what snow is? Have you ever seen snow before? Where was it? Play: Video of snow song https://www.youtube.com/watch?v=JXeX28hOkdU Ask: after watching that video and hearing the snow song, what are some things that you noticed? Ask: What does it feel like outside when it snows? What kind of clothes would you want to wear? Why? Ask: Does anyone know how snow is formed? Let: students share their ideas.</p>	<ul style="list-style-type: none"> ● Students will sit quietly at their desk ready to learn. ● Students will actively listen ● Students will raise their hands to answer questions and share ideas. ● Students will quietly watch the video about snow. ● Students will raise their hands to answer questions and participate in the anticipatory set. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: By using the think pair share instructional strategies so students can express and see others ideas and discuss with a partner <p>Representation:</p> <ul style="list-style-type: none"> ● Activate Background Knowledge: By asking students what they previously know about snow. <p>Action and Expression:</p> <ul style="list-style-type: none"> ● This anticipatory set uses multiple media for

<p>Tell: snow is actually just frozen water droplets! The temperature outside determines whether the water droplets become snow or not.</p>		<p>communication through the use of video engagement.</p>
<p>Instruction Say: Now that we have talked a little bit about what snow is, you all are going to get the chance to see and touch “snow”(snow made out of frozen baking soda and water). Tell: students to return to their seats/table groups. Say: I will call each table back one by one to have a turn with the “snow”. Say: if it is not your table's turn, you are going to be in your seat quietly working on this coloring sheet. Pass: out sheet below</p> <p>Name: _____</p> <p>Color the shapes in the picture.</p>  <p>Instruct: you are going to color each shape at the top with the color written underneath it. Once you color each of those shapes in, find that shape in the snowflake and color it the same picture. Raise your hand if you have</p>	<ul style="list-style-type: none"> ● Students will listen to instructions for the next activity. ● Students will quietly and carefully return to seats. ● Students will color in and complete the snowflake worksheet. ● Students will come back in table groups to experience and observe the magic “snow”. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: By using the think pair share instructional strategies so students can express and see others ideas and discuss with a partner <p>Representation:</p> <ul style="list-style-type: none"> ● Offer Alternatives for Auditory Information: Scientific sensory station: Students are using their senses to explore the fake snow. This kinesthetic method of teaching allows them to gain understanding of multiple aspects of what snow is. <p>Action and Expression</p> <ul style="list-style-type: none"> ● Students will use visual, auditory, and physical methods to gain understanding about snow through observation of the magic snow.

<p>any questions. Call: one table back at a time to examine the magic “snow” Ask: students to share observations about the magic “snow”. (its cold, its soft, it's thick, and it’s like cold sand, etc.) Explain: this is not real snow. This snow was made using science. I froze baking soda and mixed it with water which is something you can all try at home. I sent the directions to each of your parents.</p>		
<p>Guided Practice Say: Now, you are each going to make your own snowflakes! Once we finish them we are going to hang them up all around the classroom. Pull: name sticks to choose 2 students to help pass out the basket of materials to each table group. Each basket should have:</p> <ul style="list-style-type: none"> ● 4 white pieces of paper that are pre-folded into a triangle ready to be cut into a snowflake. ● scissors <p>Say: Before we start I want you all to watch me closely to see different ways you can cut your snowflake. Show: examples of finished snowflakes and their patterns. Show: how and where to cut (only on the straight pieces of paper not the corner) Say: Remember friends, do not cut the pointy corners off of your snowflake. Give: students 5-10 minutes to make their snowflake. Ask: Does anyone want to share their snowflake with the class? Ask: Can you explain to the class why you made your snowflake look the way you did. (My snowflake has this shape because...)</p>	<ul style="list-style-type: none"> ● Students are going to listen to instructions for the next activity. ● Students will watch the teacher model how to create the snowflakes. ● Students will use scissors and paper to cut out their own snowflakes. ● Students will share their snowflakes with their table groups and the class. ● Students will gain understanding that no two snowflakes are the same. 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Optimize Individual Choice and autonomy: students have the freedom to cut and create whatever kind of snowflake they like. <p>Representation:</p> <ul style="list-style-type: none"> ● Guide Information Processing and Visualization: model for students how to properly cut the paper to turn it into a snowflake. <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Representation: Guide Information Processing and Visualization: model for students how to properly use a weather vane in nature and help them to use it independently.

<p>Give: students a few minutes to share ideas with desk partners.</p> <p>Say: once you are done sharing with your partner, please turn in your worksheet to the turn-in box.</p>		<p>Actions and Expression:</p> <ul style="list-style-type: none">● Use multiple media for communication: Students are both writing down the information to be read as well as communicating it orally with peers.
---	--	---

Week 2 Day 4 Lesson Plan: Summative Assessment		
<p>Grade: Kindergarten</p> <p>Lesson Goal: By the end of the 40 minute lesson, students will be able to find patterns through their daily weather journals, and graph and analyze the data they have collected, to compile and complete their daily weather journal summative assessment</p> <p>Standard: K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time CCSS.MATH.CONTENT.K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies CCSS.MATH.CONTENT.K.MD.B.3 Classify objects and count the number of objects in each category</p> <p>Estimated Time: 40 minutes (With breaks when needed)</p>		
Teacher Actions	Student Actions	UDL Strategies
<p>Anticipatory Set: Pre Assessment Ask:the class to gather on the carpet with a clipboard Tell: students the objective: that today we are going to be analyzing all the data we have been collecting through our daily weather reports Explain: that before we look our data, we are going to make some predictions about our findings Ask: a student to remind the class what a prediction is Restate: the students answers Ask: students to raise their hand if they believe that it was sunny the most Count: the number of hands raised Ask: the same for each type of weather Write: the top prediction on the board</p>	<ul style="list-style-type: none"> ● Come to the carpet with a clipboard ● Actively listen to directions ● Raise hand and answer what a prediction is ● Raise hand for what weather you predict happened the most ● Raise hand and predict what the highest temperature was ● If selected, say why you chose your prediction ● Raise hands in the air with a number showing how many 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Increase Goal Importance: by setting the stage by stating the objective of the lesson ● Enhance Relevance, Value, and Authenticity: by having students predict outcomes from their data that they collected and the weather they have experienced <p>Representation:</p> <ul style="list-style-type: none"> ● Clarify Vocabulary: by






<p>Ask: students what type of weather do they think happened the least Write:the top answer on the board Ask: what do you think the highest temperature we experienced was Write: predictions on the board Explain: that scientists predictions come from using reasoning, so I would like to hear some of your reasons why you made that prediction Select: students who chose more drastic numbers either hot or cold and a few in the middle to explain why they made that prediction Point: to posted sentence starters for students to use that include: I think that... It was.. because Ask: students to raise their hands in the air with a number showing how many times they predict their daily predictions were right Write: the average number students responded on the board Tell: students to keep these predictions in mind as we analyze our data, and they will stay on the board to reference</p>	<p>times they predict their daily predictions were right</p>	<p>asking students what predictions mean again, and reminding them of the definition</p> <p>Action and Expression:</p> <ul style="list-style-type: none"> ● Offer Varied Responses: by having students show numbers on their hands and raise their hands if they agree rather than saying answers outloud
<p>Instruction Ask: students to gather their daily weather reports in their folders, and sit at their tables with eyes up front Tell: students that we are now going to analyze and chart the data we have collected Ask: can someone raise their hand and explain to me why we want to analyze our data? Explain: to students that we are doing this to find patterns in our data and draw conclusions about what we have found</p>	<ul style="list-style-type: none"> ● Gather their daily weather reports and sit at their tables with eyes up front ● Raise hand and answer why we want to analyze our data ● Think, pair, share with elbow partners ● Answer some things that we could analyze and 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: By using the think pair share instructional strategy so students can express and see others ideas and discuss with a partner <p>Representation</p> <ul style="list-style-type: none"> ● Offer Alternatives for Auditory

<p>Ask: students to think, pair, share with their elbow partners to answer the question: based on our daily weather reports, what would be some things that we could analyze?</p> <p>Tell: students that we are going to analyze the data and look for patterns in the types of weather that happened each day through a graph, and look at the daily temperature, rainfall, and predictions.</p> <p>Project: an example graph onto the screen, with a set of example reports</p> <p>Pass: out example graph</p> <p>Tell: students that each colored box on the graph represents one days weather</p> <p>Ask: students to count the amount of days it was rainy on the graph outloud</p> <p>Point: to each box as students count</p> <p>Write: the number of days at the top of the columns</p> <p>Continue: to do this with the rest of the categories</p> <p>Ask: students based on the numbers, what type of weather happened the most</p> <p>Ask: what weather happened the least?</p> <p>Ask: other than counting all the boxes, how can you tell which type of weather has the least or most?</p> <p>Explain: that the least amount always has the shortest amount, and the tallest always is the largest or most common</p> <p>Show: a graph of daily weather based on each season</p> <p>Pass: out example graphs</p> <p>Have: students think, pair, share what was the most and least type of weather that occurred each season</p> <p>Write: these on each seasons's sheet once students answer</p> <p>Ask: students what patterns between the seasons they see in their weather patterns</p> <p>Explain: that typically in the Spring and Summer it is warmer and more</p>	<p>look at from our daily weather reports</p> <ul style="list-style-type: none"> ● Count the amount of days it was rainy out loud ● Count the rest of the columns out loud with the teacher ● Raise hand and answer what type of weather happened the most ● Raise hand and answer what weather happened the least ● Raise hand and answer a different way that we could tell the results of the graph other than counting each column ● Think, pair, share with elbow partner what was the most and least type of weather that occurred each season based on the graphs on the projector ● Raise hand and answer what patterns we can observe based on the seasons 	<p>Information and Guide</p> <p>Information Processing and Visualization: by projecting the graph on the screen, as well as giving it to students so they can see it closer in front of them</p> <p>Action and Expression</p> <ul style="list-style-type: none"> ● Provide Graduated Scaffolds and Practice: by teaching students how to read a graph, and analyze a graph, as well as learn the general ideas of the patterns in weather.
--	--	---

<p>sunny, and during the Fall and Winter is it more rainy, cloudy, and snowy Tell: students that they will be looking for patterns and analyzing graphs based on their weather reports</p>		
<p>Guided Practice Pass:out the graph template and project it on the screen Explain: how this graph is going to be how we put together our data Ask: For students to volunteer to read the bottom categories Explain: that we are going to be focusing on the sunny days to do together, and then they will be completing the rest of the sections Ask: the students to point to the sun column Tell:them that each square in that column is going to be one sunny day Ask: students to repeat that every box represents one day Ask: students to go through each weather report with you, counting out loud each day that was sunny Count: outloud a number for each day that was sunny Ask: students to hold up the number of days it was sunny on their fingers Explain: to students that for each day it was sunny, they are going to color that many squares in the sunny column Color: and count each square in the sunny category Ask: students to do it along with you until the correct amount of days are colored, and count out loud as they color Ask: students to hold up their paper when finished</p>	<ul style="list-style-type: none"> ● Raise hand to volunteer to read the categories on the graph ● Point to the sun column ● Repeat that every box represents one day ● Go through each weather report, counting the days that it was sunny ● Count out loud the numbers ● Hold up the number of sunny days on fingers ● Color and count one square in the sunny category for each sunny day ● Hold up page once finished to get checked by the teacher ● Ask any questions if needed 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Optimize Autonomy: by showing students what a graph needs to have and how to complete it on their own <p>Representation</p> <ul style="list-style-type: none"> ● Maximize Transfer: by having students repeat key information and count out loud ● Guide Information Processing: by modeling the steps of graphing and the different characteristics of the graph, so that students can complete and analyze it on their own <p>Action and Expression</p> <ul style="list-style-type: none"> ● Provide graduated scaffolds and practice: by modeling how to

<p>Check:to make sure they are correct Tell: students that they will be doing this method to fill out the rest of the categories, to complete the graph Ask:if there are any questions about graphing</p>		<p>graph and what the various parts of the graph mean, so that student can finish it on their own</p>
<p>Assessment Tell:students that now we have one of our section of the graph made, it is time for you and your group to do the others Explain: that once they have placed in the data in the graph, they are going to analyze the graph by counting, and other data from the daily weather report Tell: students that they will be discussing certain questions in groups to help them analyze the graph and data, and write their answers down to complete their weather report journal Pass: out a sheet of paper with the questions below on them Display: these questions on the projector:</p> <ul style="list-style-type: none"> ● What was the type of weather that happened the most? Count based on your graph. ● What type of weather happened the least? ● Do you see any patterns on your graph? ● Were the classes predictions right this morning? ● What was the highest temperature that we experienced? ● What was the most amount of rainfall? ● How many times were your daily predictions right? ● Did your favorite type of weather happen the most? ● Fill in the sentence: It is 	<ul style="list-style-type: none"> ● Listen actively to directions ● Work collaboratively in groups to finish the assessment ● Finish the graph, based on the way that was modeled in the guided practice ● Discuss in their groups the answers to questions based on the data ● Answer the questions on the sheet of paper provided ● Ask questions to the teacher if needed ● Answer teachers questions and probes when they come up to the group ● When finished collect all their reports, the graph, worksheet, and anything else they have completed in the unit and place it in their folders ● Turn in their completed folders as the summative 	<p>Engagement:</p> <ul style="list-style-type: none"> ● Foster Collaboration and Community: by having the students analyze and discuss their graphs and data in groups to answer the questions <p>Representation:</p> <ul style="list-style-type: none"> ● Highlight Patterns, Critical Features, Big Ideas, and Relationships: through providing guiding questions for the analysis, that emphasize what to look at. <p>Actions and Expression:</p> <ul style="list-style-type: none"> ● Develop Self-Assessment and Reflection: by having students graph and analyze the data that they have collected over time, and by seeing if their predictions were right ● Monitor Progress: by monitoring students as they work in a group,

<p>_____ season right now, and the most amount of weather that happened was _____</p> <p>Ask: if there are any questions</p> <p>Tell: students that they can begin working</p> <p>Monitor: students as they work, answering questions as they come up, and probe student thinking and extension</p> <p>Give: students oral feedback based on the ideas they give, and direct them in the right direction</p> <p>Ask: students to turn in their folders with their completed reports, graph, and analysis questions, and any other work done during the unit</p>	<p>assessment</p>	<p>ensuring equal collaboration, and probing students to think deeper</p>
--	-------------------	---

Cloudy 	Partly Cloudy 	Rain 	Sun 	Snow 	Windy 