

Lesson Plan

Grade: 3rd		Subject: Science	
Materials: Projector, Climate maps, Flashlight, Yoga ball, Color pencils		Technology Needed: Projector	
Instructional Strategies: <ul style="list-style-type: none"> <input type="checkbox"/> Direct instruction <input type="checkbox"/> Guided practice <input type="checkbox"/> Socratic Seminar <input type="checkbox"/> Learning Centers <input type="checkbox"/> Lecture <input type="checkbox"/> Technology integration <input type="checkbox"/> Other (list) 		Guided Practices and Concrete Application: <ul style="list-style-type: none"> <input type="checkbox"/> Large group activity <input type="checkbox"/> Independent activity <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) 	
Standard(s)- 3-ESS2-2 Obtain and combine information to describe climates in different regions of the world DCI- ESS2: Earth's Systems		Differentiation Below Proficiency: Students will be able to first ask their partner for assistance. If students still need assistance, the teacher will have a corner of the room for students to meet with the teacher and receive one-on-one assistance. A mystery-science video will also be available for students to use to follow along and hear repeated instructions if necessary. Above Proficiency: After completing their climate maps, students will be able to look up more specific climate maps and add detail and accuracy to their maps. Students will also be able to help other students who need assistance. Approaching/Emerging Proficiency: Students will be able to raise their hands and ask questions based on their needs.	
Objective(s) By the end of this lesson, students will be able to understand and define climate, classify climate differentiation around the world, and connect why climates are different around the world. Bloom's Taxonomy Cognitive Level: Understand			
Classroom Management- (grouping(s), movement/transitions, etc.) -Students will start at their desks in small groups for the engage and explain portions of the lesson. During the explore and coloring sections, students will be able to move around the classroom and compare their work. The teacher will dismiss students and transition by giving a call and response and giving students 10-, 5-, and 1-minute warnings.		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) -Students will be expected to be keep voice levels at 0 and be attentive during the direct instruction sections. During the groupwork sections, students will be expected to have normal/inside voice levels and still be able to hear the teacher give attention-grabbers.	
Minutes	Procedures		
	Set-up/Prep:		
4	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) -Students will first see pictures from the teacher's home in California. These pictures will be of a sunny day with vegetation. The teacher will ask students to make inferences about this picture. The students will then learn that these pictures were taken in December. The teacher will then ask students "why do we think that is?" The students will naturally be confused since living in North Dakota, they are used to always having snow in December. The teacher will then have students turn to a partner to answer this question. The teacher will then call on student hands for some possible answers.		
13	Explain: (concepts, procedures, vocabulary, etc.) -The teacher will then explain that the reason these places are different is because they are different 'climates.' The teacher will explain that climate is the overall weather in a certain area, and different climates have different temperatures. There are many different climates all around the world, and in these climates the weather is different. The teacher will ask if students "can we think of some examples of places that might be different climates from North Dakota?" The teacher will call on hands and with every answer, asking other students "how are these places different?" If students are reluctant to raise their hand, the teacher will give examples of different climates and students can compare and contrast the two climates. The teacher will provide pictures of different places and give hints at explain		

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	<p>that these places look different because climate effects the landscape. The teacher will explain how they will discuss this after the next part of the section. (After the explore section). The teacher will then shut the lights off and put a large ball on side of the classroom. The teacher will then flash a flashlight on the ball (the flashlight will have tape on the lens so that it makes a straight line. The teacher will then shine the light on the ball, making the brightest part in the center of the ball. The teacher will explain the ball is like the earth, and the flashlight is like the sun. The places on the ball where the light is strongest is going to be the hottest, and will be colder in the spots where there is less light. The teacher will connect the material by asking students about times when they've been sunburnt, and why some parts of their body were sunburned instead of other parts. The parts most exposed to the sun were sun burned because the brightest and therefore hottest rays were on that spot over a period of time. The suns rays are strongest in the center of the earth, and less as it moves towards the ends. Because of this, the climates in the center of the earth near the equator are much hotter than those at the end.</p>
<p style="text-align: center;">13</p>	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) The teacher will then hand out 'climate temperature decoder' sheets. Each climate will have a number line where the average climate is for that place. Students will find the corresponding temperature color and color each average temperature. The teacher will do an example of one of climate decoders and coloring the map on the board (I do). The teacher will then do another one with the class, this time having the students answer what colors he should color the decoder and where on the map he should color (we do). Upon completion, students will each get a map with a 3rd of the world. Students will get into groups of 3 that completes the map, and color the different parts of the climate according to the 'climate decoder' (you do). After the students finish, the teacher will then put them back into a large group setting and ask what they noticed, and if the students saw any patterns. The teacher will collect student answers.</p>
<p style="text-align: center;">2</p>	<p>Review (wrap up and transition to next activity): -The teacher will then turn the lights back on, and go through and pick out sections of the earth on the board, asking students what the climate is there and how much of the sun's rays does this area get.</p>
<p>Formative Assessment: (linked to objectives) Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc. -The teacher will ask students clarifying questions to check understanding, as well as answering student questions and viewing the students climate maps. The teacher will be able to gauge student understanding of the topic based on how they are coloring the maps. If the students are coloring the map incorrect colors, the teacher will bring up a copy of the map on the board and demonstrate the correct way to color the map to model for students. The teacher will be able to gauge whether or not they should move on based on how far along students are in coloring their maps.</p>	<p>Summative Assessment (linked back to objectives) End of lesson: Based on the climate maps and model the teacher displayed, students will fill out the form below as an exit slip to check their knowledge and understanding of the lesson. The teacher will grade the students' responses based on the proficiency scale attached below.</p> <p style="text-align: center;">If applicable- overall unit, chapter, concept, etc.:</p>
<p>Reflection (What went well? What did the students learn? How do you know? What changes would you make?):</p>	

Stormy Skies

Mystery 3: Why are some places always hot?

Name: _____

Date: _____

End of Mystery Assessment

1. If you met someone from another country, what questions would you ask to figure out what climate he or she is from?


2. Chantal loves warm weather and enjoys hiking in lush, green forests. What climate or climates would you suggest she visit for her vacation? Why?



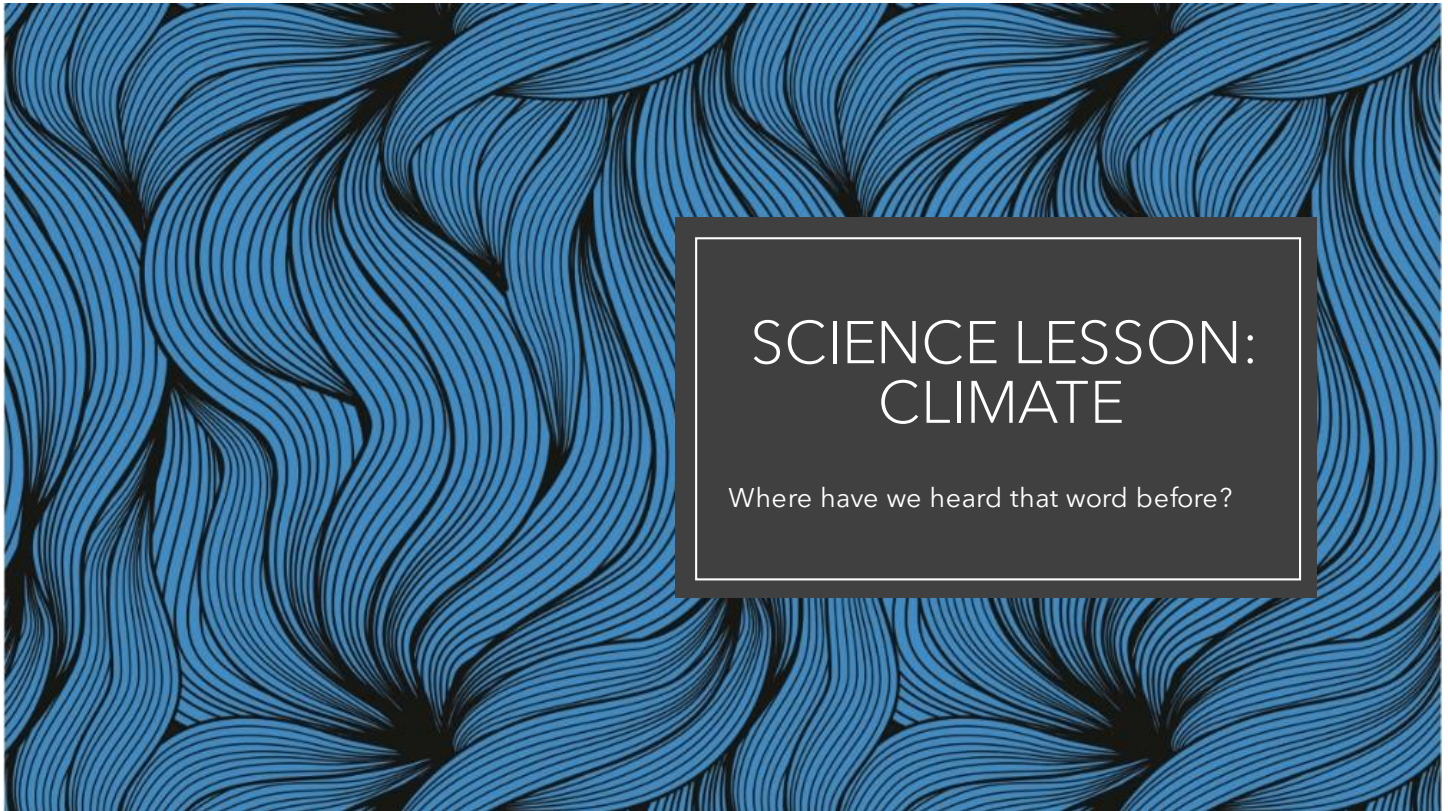
3. Why is it so much hotter near the equator than at the poles?



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Grade: 3 Strand: Earth Space Science Standard/Topic: SCI-03.ESS2.01 Represent data in tables and graphical displays to describe and predict typical weather conditions expected during a particular season.		
		Sample Activities
Score 4.0 Complex	In addition to Score 3.0, in-depth inferences and applications that go beyond the target content.	
	3.5 In addition to target performance, in-depth inferences and applications with partial understanding	
Score 3.0 Target	The student will: <ul style="list-style-type: none"> • represent data in tables and graphical displays to describe typical weather conditions expected during a particular season The student exhibits no major errors or omissions.	<ul style="list-style-type: none"> • for example, represent average temperature, precipitation, and wind direction in pictographs and bar graphs in order to describe typical weather conditions expected during a particular season
	2.5 No major errors or omissions regarding the simple content and partial understanding of the target content	
Score 2.0 Simple	There are no major errors or omissions regarding the simpler details and processes as the student: <ul style="list-style-type: none"> • The student will recognize or recall specific terminology, such as: <ul style="list-style-type: none"> ◦ average, Celsius, Fahrenheit, precipitation, season, temperature, typical, weather condition, wind direction • The student will perform basic processes, such as: <ul style="list-style-type: none"> ◦ describe and predict the typical weather conditions expected during particular seasons ◦ create bar graphs and/or pictographs However, the student exhibits major errors or omissions regarding the more complex ideas and processes.	
	1.5 Partial understanding of the simple, but major errors or omissions regarding the target content	
Score 1.0	With help, partial understanding of the simple and target content	
	0.5 With help, partial understanding of the simple content, but not the targeted content	

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SCIENCE LESSON:
CLIMATE

Where have we heard that word before?



12/15/20

CLIMATE

A climate is the way weather always acts in a certain place

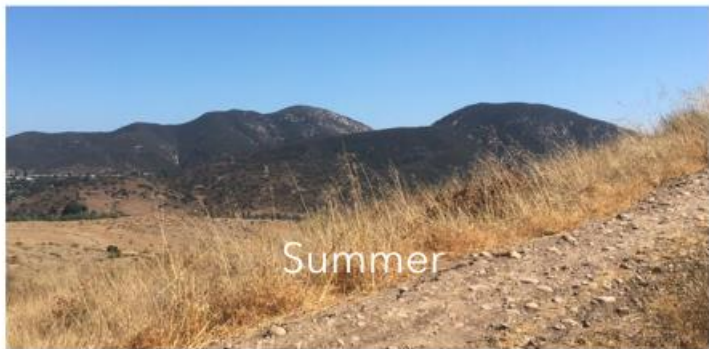
Winter

Summer

NORTH DAKOTA

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CALIFORNIA



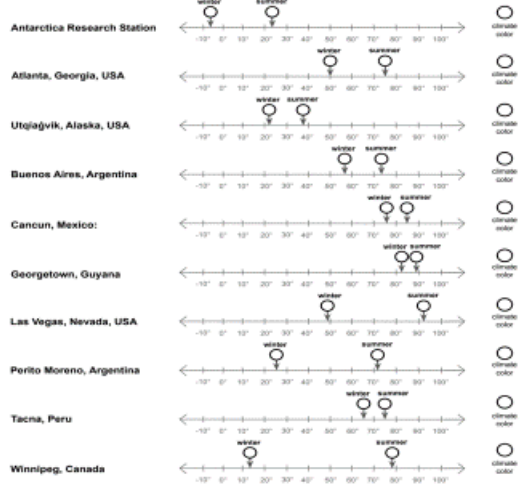
Climates in the Americas (Fahrenheit)

mystery science

Why are some places always hot?

Name: _____

Climate Decoder



Note: All temperatures are in Fahrenheit

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Climates in the Americas

Why are some places always hot?

Name: _____



CLIMATE KEY

- This climate is hot all year long.
- This climate has cold winters and hot summers.
- This climate has warm winters and hot summers.
- This climate is hot all year long.

Climates in Europe & Africa

Why are some places always hot?

Name: _____



CLIMATE KEY

- This climate is hot all year long.
- This climate has cold winters and hot summers.
- This climate has warm winters and hot summers.
- This climate is hot all year long.

Climates in Asia & Australia

Why are some places always hot?

Name: _____



CLIMATE KEY

- This climate is hot all year long.
- This climate has cold winters and hot summers.
- This climate has warm winters and hot summers.
- This climate is hot all year long.



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