Module Analysis for Literacy Strategy Implementation

Grade 4

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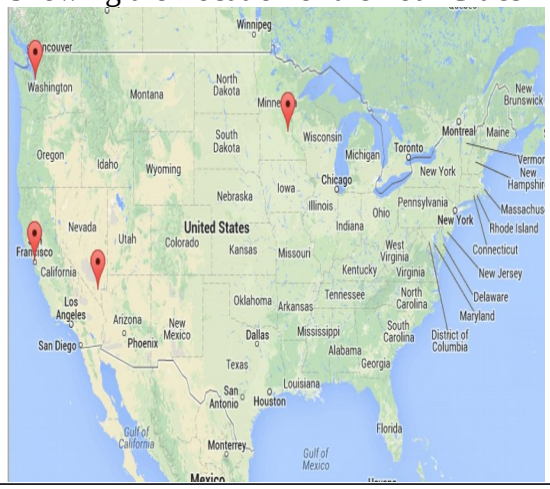
Abstract

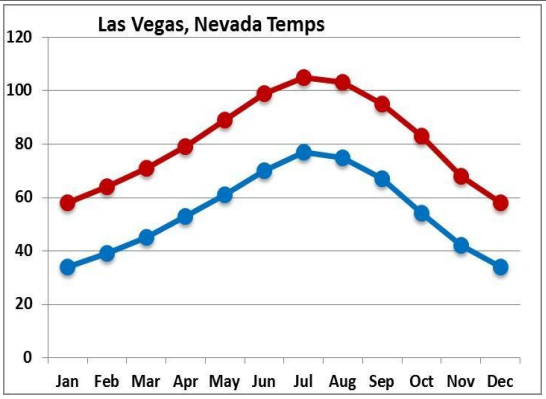
A Tale of Four Cities: Using Data to Model Variations in Regional Climate in the Western United States-Middle School Sample Classroom Task was the unit chosen for this assignment. In both science and social students fourth-graders study rotation, revolution, climate, and weather. The students have difficulty understanding that Earth's orbit and its rotation work together to create the seasons. Although they can master identifying lines of latitude and longitude, it is difficult for them to connect these locations to climate patterns.

The goal of this unit is for students to understand and explain the reasons for differences among four cities in the western part of the United States. The task should take 4 to 8 class periods. The assignment includes Seattle, Washington; San Francisco, California; Minneapolis, Minnesota; and Las Vegas, Nevada. When the students communicate with their friends who live in one of the four areas, they are curious as to why these places have a diffferent climate than there hometown.

A Tale of Four Cities: Using Data to Model Variations in Regional Climate in the Western United States – Middle School Sample Classroom Task	Page	Common Core State Standards for Literacy
1. You have friends who live in different cities around the United States: (1) Seattle, Washington; (2) San Francisco, California; (3) Minneapolis, Minnesota; (4) and Las Vegas, Nevada. When you talk with your friends, you often wonder why the climate patterns seem so different across the country at given times of the year.	Page 4	CCSS.ELA-LITERACY.W.4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
2. Consider and compare the daily temperature data from your school's location for the same month from two different years (e.g., October 2013, and October 2014).	Page 4.	CCSS.ELA-LITERACY.RI.4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears
3. Compare the temperature scatterplots for Minneapolis, MN, and Las Vegas, NV. Consider the difference between the cities in the average monthly high temperature during the hottest month and the difference between the cities in average monthly high temperature during the coldest month.	Page 5	CCSS.ELA-LITERACY.RL.4.9 Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.
4. Students identify the given claim that higher latitudes have lower average temperatures, based on the differences in temperatures and differences in latitude between Minneapolis, MN, and Las Vegas, NV.	Page 9	. CCSS.ELA-LITERACY.RI.4.5 Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
5. Students use reasoning to logically connect the evidence to construct an explanation that colder temperatures, associated with lower pressure, at higher altitudes can account for the presence of snowfall in places with great topographic relief.	Page 11	CCSS.ELA-LITERACY.SL.4.1. A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.

6. Students label areas of higher elevation, indicating areas of colder temperatures due to a location at higher altitudes.		
6.Attachment 2. Obtaining Regional Monthly Climatological Data *From the Weather Channel's home page (http://www.weather.com):* *Search for your city.* *Select the monthly tab on the left.* *Select the averages tab below the calendar.* *You can select data in either Fahrenheit or Celsius, table or graph form.*	Page 14	CCSS.ELA-LITERACY.RI.4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
7.Attachment 7. Map of the United States Showing the Location of the Four Cities 	Page 19	CCSS.ELA-LITERACY.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
8. 	Page 26	CCSS.ELA-LITERACY.W.4.1.A Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.

9.



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CCSS.ELA-LITERACY.W.4.2.A
Introduce a topic clearly, and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

10.

Month	Average Monthly High Temp (°F)	Average Monthly Low Temp (°F)	Average Monthly Precipitation (inches)
Jan	47	36	5.24
Feb	51	37	4.23
Mar	55	39	3.92
Apr	59	43	2.75
May	65	48	2.03
Jun	70	53	1.55
Jul	75	56	0.93
Aug	75	57	1.16
Sep	70	53	1.61
Oct	60	46	3.24
Nov	52	40	5.67
Dec	47	36	6.06

Month	Average Monthly High Temp (°F)	Average Monthly Low Temp (°F)	Average Monthly Precipitation (inches)
Jan	57	46	4.50
Feb	60	48	4.61
Mar	62	49	3.26
Apr	63	49	1.46
May	64	51	0.70
Jun	67	53	0.16
Jul	67	54	0.00
Aug	68	55	0.06
Sep	70	55	0.21
Oct	69	54	1.12
Nov	63	50	3.16
Dec	57	46	4.56

Minneapolis, Minnesota			
Month	Average Monthly High Temp (°F)	Average Monthly Low Temp (°F)	Average Monthly Precipitation (inches)
Jan	24	7	0.90
Feb	29	13	0.81
Mar	41	24	1.89
Apr	58	37	2.66
May	69	49	3.36
Jun	79	59	4.25
Jul	84	64	4.04
Aug	81	62	4.30
Sep	72	52	3.08
Oct	58	40	2.43
Nov	41	26	1.77
Dec	27	12	1.16

Las Vegas, Nevada			
Month	Average Monthly High Temp (°F)	Average Monthly Low Temp (°F)	Average Monthly Precipitation (inches)
Jan	58	34	0.00
Feb	64	39	0.00
Mar	71	45	0.00
Apr	79	53	0.00
May	89	61	0.00
Jun	99	70	0.00
Jul	105	77	0.00
Aug	103	75	0.00
Sep	95	67	0.00
Oct	83	54	0.00
Nov	68	42	0.00
Dec	58	34	0.00

CCSS.ELA-LITERACY.W.4.2.D
Use precise language and domain-specific vocabulary to inform about or explain the topic.
CCSS.ELA-LITERACY.W.4.2.E
Provide a concluding statement or section related to the information or explanation presented.

Literacy Strategies

1. Write a letter to your friend who lives in one of cities discussed in the unit. Inquire about the weather and activities they enjoy in their hometown.
2. Write a paragraph describing the daily temperature in your city for one month. Include a topic sentence and supporting details.
3. With your partner use a Venn Diagram to compare and contrast the temperature data from two different cities.
4. Complete a cause and effect graphic organizer to explain how temperature is affected by locations of latitude.
5. Create an advertisement to convince others to live in the city you have studied.
6. 7. 8. 9. With your group create a brochure. Use the data and information you have gathered throughout the lesson. Be sure to identify the cities location, climate, and topography. You may include pictures, captions, and other details that you discovered.
10. Write a topic sentence with the key supporting details to explain why you would or would not want to live in the city you researched.