

5: Weather Alert!

Based on the US Virgin Islands quarter



OBJECTIVE

Students will describe the effects that weather and climate have on humans. Students will describe various weather patterns and how they occur. Students will identify ways to prepare for different types of weather.



MATERIALS

- 1 overhead projector (optional)
- 1 overhead transparency (or photocopy) of the "US Virgin Islands Quarter Reverse" page
- Copies of the following:
 - "Weather Research" worksheet
 - "Weather PSA Rubric"
- 1 class map of the United States and its territories
- Examples of public service announcements, especially weather warnings
- Computers with Internet access
- Multiple copies of texts that give information about storms, such as:
 - Storms by Seymour Simon
 - Storms by Ray Broekel
 - Hurricanes, Tsunamis, and Other Natural Disasters by Andrew Langley



PREPARATIONS

- Make an overhead transparency (or photocopy) of the "Virgin Islands Quarter Reverse" page
- Make copies of each of the following:
 - "Weather Research" worksheet (1 per student)
 - "Weather PSA Rubric" (1 per student)
- Arrange to use the school computer lab for two sessions.
- Locate texts that give information on weather (see examples under "Materials").
- Bookmark Internet sites that contain historical information on hurricanes. For example:
 - Tropical storms and hurricanes that passed within two degrees of latitude of Puerto Rico and the Virgin Islands from 1515 to present at http://www.srh.noaa. gov/sju/hrcnhist.html.



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- Historical hurricane tracks at http://maps.csc.noaa.gov/hurricanes/viewer.html?
 QE=NAME&ATLBASIN=371,559,1336,322,321,216,832,620,30,543.
- Tropical cyclone tracker at http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/hurtrack/index.html.
- Gather examples of public service announcements, especially weather warnings.
- Bookmark Internet sites that contain information on weather.



GROUPINGS

- Whole group
- Small groups
- Individual work



CLASS TIME

Five 45- to 60-minute sessions



CONNECTIONS

- Social Studies
- Science
- Language Arts



TERMS AND CONCEPTS

- Ouarter
- Obverse (front)

• Reverse (back)

- Hurricane
- Human/Environment Interaction
- Blizzard

- Tornado
- Thunderstorm



BACKGROUND KNOWLEDGE

Students should have a basic knowledge of:

- Geography
- The writing process

Weather

- Climate
- Public Service Announcement (PSA) •
- Preparedness



STEPS

Session 1 and 2

1. Describe the 50 State Quarters® Program and the District of Columbia and U.S. Territories Quarters Program for background information, if necessary, using the



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example of your own state's or territory's quarter. Then display the "US Virgin Islands Quarter Reverse" overhead transparency or photocopy. Tell the students that the back of a coin is called the reverse, and "obverse" is another name for the front. Locate the US Virgin Islands on a classroom map. Note their position in relation to your school's location. When defining "US territory" (lowercase "t") for your students, the United States Mint recognizes and uses the Department of the Interior's definitions found at www.doi.gov/oia/Islandpages/political_types.htm.

- 2. With the students, examine the coin design. Have the students identify the images and the writing in this design. Ask the students for ideas on the images and what they may represent. After recording student responses on chart paper, refer to the Resource Guide for an explanation of the images. Focus on the rendition of the islands and where the islands are located.
- 3. Discuss with the students the definition of the word "geography" and write the final definition on chart paper.
- 4. Explain to the students that, in this lesson, they will be looking at the way that humans interact with their environment, including the weather.
- 5. Take the students to the computer lab. Visit the hurricane tracking Web sites. Allow the students time to explore different hurricane tracks. Have the students focus on hurricanes Hugo and Marilyn especially. Ask the students for any observations or conclusions that they can make from the sites. Have the students focus on the fact that many hurricanes pass through the Virgin Islands because of the islands' location.
- 6. Ask the students for examples of different types of storms. Record their responses on chart paper.
- 7. Show some examples or have the students recall examples of Public Service Announcements. Tell the students they will be working in groups of four and developing a public service announcement ("commercial") that warns people and tells them how to prepare for an approaching storm. The groups will choose a type of storm from the list on the chart paper. They will research the type of storm, how it is different from other types, and what dangers are involved.
- 8. Display and distribute the "Weather Research" worksheet and review the directions with the students.
- 9. Assign the students to groups of four. Have each group pick a storm type, making sure all are covered. Allow the students time to research using the suggested texts or take the students to the computer lab.

Session 3 and 4

1. Review storms, the kinds of damage they can do, and why it's important to be prepared for them.



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- 2. Display and distribute the "Weather PSA Rubric" and review it with the class. Explain that the students will be working in their groups of 4 to develop a public service announcement that they will present to the class. Stress the importance of writing a script for this presentation. Costumes and props are optional.
- 3. Allow students time to write the scripts with their groups.

Session 5

- 1. Have the students present their public service announcements.
- 2. Have the students complete the rubrics.
- 3. Collect the rubrics and PSAs.



ASSESSMENT

- Use the "Weather PSA Rubric" to evaluate whether they have met the lesson objectives.
- Check the "Weather Research" worksheet for accuracy.



ENRICHMENTS/EXTENSIONS

- Have students find newspaper articles about dangerous storms that have affected their local community.
- Record the students' presentations using a video camera.
- Have the students visit the National Weather Service Web site at http://noaa.kids. us/.



DIFFERENTIATED LEARNING OPTIONS

- Have the students use video or visual media to complete their research.
- Prepare a script with blanks for important ideas for students to fill in with the information they research.



CONNECTION TO WWW.USMINT.GOV/KIDS

- Have students learn how a hurricane affected the July 2003 Coin of the Month at www.usmint.gov/kids/coinNews/coinOfTheMonth/2003/07.cfm.
- Have students learn more about the climate of a particular state with the generic quarter plan called "Just the Facts" at www.usmint.gov/kids/teachers/lessonPlans/50sq/2007/0406-6.pdf.



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Weather Research Sheet

	Directions: R	esearch the followli	ng information and rec	ord it here.
What is you	ır storm called?			
What are so names?				
How does it	t develop?			
Where does	s it develop?			
How are the	ese storms different	from each other?		
	Hurricane	Tornado	Thunderstorm	Blizzard
Size				
Wind speed				
Location				
Dangers				
What are the	e dangers of your	selected storm?		
What is the o	difference betwee	en a watch and a w	varning?	
What would	you put in a prep	aredness kit for this	type of storm?	
4 5				



Name			

Weather PSA Rubric

Teacher Name	

4	3	2	1	SELF	TEACHER
Group researched the subject and integrated 3 or more "tidbits" from their research into their PSA.	Group researched the subject and integrated 2 "tidbits" from their research into their PSA.	Group researched the subject and integrated 1 "tidbit" from their research into their PSA.	Either tidbits were not used or it was not clear that the group used them in the PSA.		
All informational items were supportive and accurate.	Most all informational items were supportive and accurate.	Some informational items were supportive or accurate.	Most informational items were inaccurate or irrelevant.		
All the speaking was clear and distinct, the words pronounced correctly.	The speaking was clear, most words pronounced correctly.	The speaking was clear, but 3 to 5 words were pronounced incorrectly.	Many words were pronounced indistinctly or incorrectly.		
Presentation through facial expression and body language was enthusiastic without being overdone.	Presentation through facial expression and body language was enthusiastic but overdone.	Presentation through facial expression and body language was only mildly enthusiastic.	Presentation through facial expression and body language was hardly enthusiastic.		
Established at the beginning and maintained throughout.	Established at the beginning, but wavered once or twice.	Basically clear but some parts seemed only slightly related.	Viewpoint and purpose were difficult to figure out.		
Group functioned exceptionally well and remained on task. All members listened to, shared with, and supported each other.	Group functioned well and remained mostly on task. Most members listened to, shared with, and supported each other.	Group functioned fairly well but was dominated by one or two members.	Group members were often off task, disrespectful, OR disregarded by other members.		
	Group researched the subject and integrated 3 or more "tidbits" from their research into their PSA. All informational items were supportive and accurate. All the speaking was clear and distinct, the words pronounced correctly. Presentation through facial expression and body language was enthusiastic without being overdone. Established at the beginning and maintained throughout. Group functioned exceptionally well and remained on task. All members listened to, shared	Group researched the subject and integrated 3 or more "tidbits" from their research into their PSA. All informational items were supportive and accurate. All the speaking was clear and distinct, the words pronounced correctly. Presentation through facial expression and body language was enthusiastic without being overdone. Established at the beginning and maintained throughout. Group functioned exceptionally well and remained on task. All members listened to, shared with accurate into their PSA. Most all informational items were supportive and accurate. The speaking was clear, most words pronounced correctly. Presentation through facial expression and body language was enthusiastic but overdone. Established at the beginning and maintained throughout. Group functioned exceptionally well and remained mostly on task. Most members listened to, shared with, and	Group researched the subject and integrated 3 or more "tidbits" from their research into their PSA. All informational items were supportive and accurate. All the speaking was clear and distinct, the words pronounced correctly. Presentation through facial expression and body language was enthusiastic without being overdone. Established at the beginning and maintained throughout. Group functioned exceptionally well and remained on task. All members listened to, shared Group researched the subject and integrated 1 "tidbit" from their research into their PSA. Group functioned the subject and the subject and integrated 1 "tidbit" from their research into their PSA. Some informational items were supportive or accurate. The speaking was clear, most words pronounced correctly. Presentation through facial expression and body language was enthusiastic but overdone. Established at the beginning and maintained throughout. Group functioned exceptionally well and remained on task. All members listened to, shared with, and	Group researched the subject and integrated 3 or more "tidbits" from their research into their PSA. All informational items were supportive and accurate. All the speaking was clear and distinct, the words pronounced correctly. Presentation through facial expression and body language was enthusiastic without being overdone. Established at the beginning and maintained mroughout. Established at the beginning and maintained exceptionally well and remained mand remained on task. All members listened to shared with a subject and integrated 1 "tidbits" from their research into their PSA. Group researched the subject and integrated 1 "tidbits" from their research into their PSA. Some informational items were supportive or accurate. Some informational items were supportive or accurate. The speaking was clear, but 3 to 5 words were pronounced indistinctly or incorrectly. Presentation through facial expression and body language was enthusiastic but overdone. Established at the beginning and maintained exceptionally well and remained mostly on task. All members listened to, shared with, and	Group researched the subject and integrated 3 or more "tidbits" from their research into their PSA. All informational items were supportive and accurate. All the speaking was clear and distinct, the words pronounced correctly. Presentation through facial expression and body language was enthusiastic without being overdone. Established at the beginning and maintained throughout. Group functioned exceptionally well and remained on task. All members listened to, shared with a subject and integrated 1 "tidbit" from their research into their PSA. Group researched the subject and integrated 1 "tidbit" from their research into their PSA. Some informational items were supportive or accurate. Some informational items were supportive or accurate. The speaking was clear, most words pronounced correctly. The speaking was clear, but 3 to 5 words were pronounced incorrectly. Presentation through facial expression and body language was enthusiastic without being overdone. Established at the beginning and maintained throughout. Group functioned exceptionally well and remained on task. All members listened to, shared

Teacher Comments



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