

Geography: It's More than Just a Place

The Unit at a Glance

We've designed this unit to enhance student understanding of the human and physical aspects of geography, using the Dominican Republic as an example. It's divided into four separate modules, each of which contain a number of lessons that can be adapted for students in grades 6-12. Each module is organized around one or more enduring understandings and essential questions. All modules revisit, from a different vantage point, the major theme of *where we live influences how we live*. Because of this, you can adapt individual lessons in a module to the study of any country you wish. This unit is flexible. You can teach the entire unit, or you can select particular modules, or you can adapt the modules or lessons to meet your students' needs. Each of the modules is designed to deepen students' understanding of the geography of the Dominican Republic—and of the concept of geography in general. Together, the lessons “put a face on a place” and help students understand that, despite geographical differences, we are all connected in a common bond of humanity.

This is a standards-based unit, designed to address the standards of the National Council for the Social Studies and the National Geographic Society, as well as the Language Arts Standards identified by McREL (Mid-Continent Regional Education Laboratory). We've also organized this unit around four enduring understandings. As noted in the Introduction, these are important ideas and core skills that have lasting value beyond the classroom. They involve generalizations that will endure over time (Wiggins and McTighe 1999).



Enduring Understandings

The enduring understandings for this unit are:

- Where we live influences how we live; yet all of us are connected and interconnected with each other and the world.
- To gain a complete and accurate picture of a country, you need to draw on multiple sources of information and evaluate their quality and their perspective.
- Natural disasters are great tragedies. However, they can bring people together, reinforce interconnections, and reveal surprising traits of heroism.
- Working together to respond to a natural disaster can unite us with others in a common bond of humanity.

Essential Questions

We have organized the four modules in this unit to address a number of “essential questions,” related directly to the enduring understandings above, and intended to guide teaching and evoke student curiosity and interest. Because they are designed to stimulate student thinking and discussion, essential questions are open-ended and do not have an obvious “right” answer. The essential questions are:

- How does where we live influence how we live?
- Why does where we live influence how we live?
- No matter where we live, how are we all connected with each other and the world?
- How does using multiple sources of information give us a more accurate picture of a place and its people?
- Why do we need to evaluate the quality and accuracy of information we find?
- How is our picture of a country dependent on the sources we use to investigate it?
- How can responding to natural disasters unite a community?
- How can working together to respond to a natural disaster bind people together in a common bond of humanity?

Topical Questions

Topical questions flow from essential questions, but are more narrowly focused and content-specific (McTighe and Wiggins 1999). While essential questions can be used for the study of many different countries, the topical questions in this unit are specific to the Dominican Republic. The table on page 18 shows the relationship between enduring understandings, essential questions, and topical questions for this unit.

Knowledge and Skills

While organized around enduring understandings and essential questions, this unit also targets specific knowledge and skills. These are listed below.

KNOWLEDGE

Students will *know*:

- The location, topography, and major cities of the Dominican Republic.
- That where you live influences how you live.
- That one data source alone does not present a complete picture of life and people in a country.
- That deep understanding of a country and its people requires us to look at multiple sources of information and evaluate their accuracy and quality.
- That despite the destruction caused by natural disasters, they can bring people together, reinforce interconnections, and reveal surprising traits of heroism.
- There exist “cultural universals” that, in spite of differences across cultures, unite us in a common humanity.

SKILLS

Students will *be able to*:

- Explain how where you live influences how you live.
- Explain why and how, no matter where we may live, we are all connected and interconnected with the world.
- Interpret charts that identify the Dominican Republic's demographics and reflect on what they reveal.
- Compare the demographics of the Dominican Republic with those of the United States to expand students' perspectives about the nature of different places and cultures.
- Explain the dynamics of hurricanes and demonstrate empathy for the people in the Dominican Republic whose lives were impacted by hurricanes.
- Explain how natural disasters can frequently bring people together in new and unexpected ways.

I can never again stir lumps of very cheap sugar into a cup of Irish breakfast tea without reflecting on the international relations of production and consumption that forced my old neighbor and friend, Biu, ... at the age of 43 and following 15 pregnancies, to wrap a cloth around her head and shoulder a focie (sharp hoe) to work clearing sugar plantations for \$1.25 a day so that she could try to feed her children.

Assessing Student Understanding

We believe that a variety of strategies are needed to fully assess understanding.

In this unit we've used the following strategies:

- Written products in response to academic prompts.
- Journal reflections in response to academic prompts.
- Formal observations of student work on maps, graphic organizers, and demographic charts.
- Student self-assessment checklists.
- Peer review and feedback.
- Culminating performance tasks.

*Nancy Schepher-Hughes
Anthropologist,
(RPCV Brazil)*



Insights from the Field

Table B

Enduring Understandings	Essential Questions	Topical Questions
<ul style="list-style-type: none"> Where we live influences how we live, yet all of us are interconnected with each other and the world. 	<ul style="list-style-type: none"> How does where we live influence how we live? No matter where we live, how are we all interconnected with each other and the world? 	<ul style="list-style-type: none"> How does living in the United States influence how we live? How does living in the Dominican Republic influence how people live? How is living in an urban area different from living in a rural area? How are people in the United States interconnected with the people in the Dominican Republic?
<ul style="list-style-type: none"> To gain a complete and accurate picture of a country, you need to draw on multiple sources of information—and evaluate their quality and their perspective. 	<ul style="list-style-type: none"> How does using multiple sources of information give us a more accurate picture of a place and its people? Why do we need to evaluate the quality and accuracy of information we find? How is our picture of a country dependent on the sources we use to investigate it? 	<ul style="list-style-type: none"> What sources of information will give us the most accurate picture of the Dominican Republic? How do we evaluate the quality and accuracy of the information about the Dominican Republic that we find? How will our picture of the Dominican Republic be influenced by the information sources we use to investigate it?
<ul style="list-style-type: none"> Natural disasters are great tragedies. However, they can bring people together, reinforce interconnections, and reveal surprising traits of heroism. 	<ul style="list-style-type: none"> How can responding to natural disasters unite a community? 	<ul style="list-style-type: none"> How did their response to Hurricane Georges unite people living in the Dominican Republic?
<ul style="list-style-type: none"> Working together to respond to a natural disaster can bind people together in a common bond of humanity. 	<ul style="list-style-type: none"> How can responding to natural disasters unite people from different countries in a common bond of humanity? 	<ul style="list-style-type: none"> How did responding to the devastation caused by Hurricane Georges unite people from different countries in a common bond of humanity?

Content Standards Addressed in This Unit

National Geography Standards

The World in Spatial Terms

Geography is the study of the relationships between people, places, and environments by mapping information about them into a spatial context.

The geographically-informed person knows and understands:

- How to use maps and other geographic representations, tools (e.g., charts and graphs), and technologies to acquire, process and report information from a spatial perspective.
- How to analyze the spatial organization of people, places, and environments on the Earth's surface.

Human Systems

People are central to geography in that human activities help shape Earth's surface, human settlements and structures are part of Earth's surface, and humans compete for control of Earth's surface.

The geographically-informed person knows and understands:

- The characteristics, distribution, and complexity of Earth's cultural mosaics.

National Council for the Social Studies Standards

Culture (NCSS Theme I)

Social studies programs should include experiences that provide for the study of culture and cultural diversity so that the learner can:

- Compare similarities and differences in the ways groups, societies, and cultures meet human needs and concerns.
- Explain how information and experiences may be interpreted by people from diverse cultural perspectives and frames of reference.

Individual Development and Identity (NCSS Theme IV)

Social studies programs should include experiences that provide for the study of individual development and identity so that the learner can:

- Identify and describe ways in which regional, ethnic, and national cultures influence individuals' daily lives.
- Identify and describe the influence of perception, attitudes, values, and beliefs on personal identity.

Language Arts Standards *(Identified by the Mid-Continent Regional Education Laboratory)*

- The learner demonstrates competence in the general skills and strategies of the writing process.
- The learner demonstrates competence in the general skills and strategies for reading a variety of informational texts.
- The learner will gather and use information for research purposes.
- The learner will demonstrate competence in speaking and listening as tools for learning.

Where We Live Influences How We Live

*Afoot and light-hearted
I take to the open road,
Healthy, free, the world before me,
The long brown path before me
leading wherever I choose.*

Walt Whitman, *Poet*

The Module at a Glance

By focusing on life in the United States as compared with life in the Dominican Republic, students will begin to explore the essential question, *How does where we live influence how we live?* They will locate the Dominican Republic on a map and examine primary source data on the Dominican Republic in the form of written observations about geography and climate from Peace Corps Volunteers who have served there. This module is organized to address the enduring understanding, essential question, and content standards listed in the sidebar on page 21.

Lesson One: Where in the World is the Dominican Republic?

Objectives:

- Students will be able to explain how where they live influences how they live.
- Students will be able to locate the Dominican Republic and its major cities on a Western Hemisphere map.

Instructions:

1. Present students with the essential question: *How does where we live influence how we live?* Invite responses. Next, ask students to reflect on the place they call “home” and how their own physical surroundings (location, population, climate, physical features, etc.) influence the way they live.
2. To further student thinking about where they live, give categories, such as the jobs that are available, the type of homes people live in, the transportation systems available to them, the things they do to have fun, the clothing people wear, the food they eat, and so on. Ask students to generate examples for each category.
3. Ask students this question: If you lived somewhere else in the world, in a place that was very different, how might your life be different? Give examples such as, if you lived in Alaska instead of Florida? If you lived in Los Angeles, California, instead of in a small suburban town in Kentucky? If you lived in the mountains instead of by the ocean? In Canada or France instead of in the United States? On a farm rather than in a city?

4. Ask students to draw conclusions about how where we live influences how we live. Write their conclusions on the board.
5. Provide students with a copy of the graphic organizer on Worksheet #1: *How Does Where We Live Influence How We Live?* on page 22. Ask them to reflect on the categories listed on the graphic organizer and then to describe (in writing) life in the United States in those categories, based on their own experiences.
6. When they have finished writing, ask students to share and compare their responses with a partner.
7. Using a world map, ask students to locate the Dominican Republic. Mention that the Dominican Republic shares the island of Hispaniola with Haiti, that its capital is Santo Domingo, and that it is just 600 miles south of Florida. Also mention that it is the first place that Columbus landed in 1492.
8. Ask students: Given the location of the Dominican Republic, what assumptions can they make about how where we live influences how we live (e.g., “it’s south of Florida, so it must be warm”). Have students make a list of assumptions or predictions about what life might be like in the Dominican Republic. This can be done in small groups or as a whole class.
9. Show students a map of the Dominican Republic (see page 180). Ask students to circle the capital, Santo Domingo, and the “second capital,” Santiago. Next ask them to find and circle Pico Duarte (Duarte Peak), the highest mountain peak in the West Indies.
10. Mention to students that, since 1962, approximately 3,200 Peace Corps Volunteers have served in the Dominican Republic. Presently there are roughly 150 serving there. The projects in which they serve include agricultural improvement, education, environmental awareness, forestry, health, water sanitation, and small business development in urban and rural areas.
11. Ask students to circle on their maps several cities and towns where Peace Corps Volunteers have served: Moca (north central), Sabaneta (northwest), Samana (east), and Hato Mayor (southeast). Let students know that, later in the lesson, they will be reading what Peace Corps Volunteers had to say about life in these areas.

Enduring Understanding:

Where we live influences how we live.

Essential Question:

How does where you live influence how you live?

Standards:

National Geography Standards:

- How to analyze the spatial organization of people, places, and environments on the Earth’s surface.

Language Arts Standard:

- The learner will demonstrate competence in the general skills and strategies for reading a variety of informational and literary texts.

Assessments:

Journal Entries; Completion of Graphic Organizers.

Materials:

Map of the Dominican Republic;
Primary Source Packet: Interviews with Peace Corps Volunteers Serving in the Dominican Republic

Time: Two days

Worksheet #1

You live in the United States.
How does where you live influence how you live?

Directions: Please provide examples for each category below.

- The effect of weather and climate on people's daily lives.
- The effect of geographic features (mountains, rivers, forests, oceans, etc.) on daily life.
- The kind of transportation that is available to people.
- The ways in which people earn a living.
- The types of homes in which people live.
- The kinds of roads on which people travel.
- The availability of water and electricity and other necessities of life.

Lesson Two: Geography, Climate, and Community in the Dominican Republic

Objectives:

- Students will be able to use primary source materials on the Dominican Republic to explore the question: How does where you live influence how you live?
- Students will be able to describe the geography and climate of the Dominican Republic.
- Students will be able to describe how life in the Dominican Republic and life in the United States are similar and different.



Instructions:

1. We'd like to suggest that you introduce the geography of the Dominican Republic to your students by using scenarios that add purpose, curiosity, and importance to their study. Scenarios invite students to step into a real-world situation and ask: What do I need to know about this place? How will this place affect how I live? You'll find some scenarios below. Or, you and your students can come up with your own.
2. SCENARIOS: Ask students what they would want or need to know if:
 - They just learned that their family is moving to the Dominican Republic.
 - They were going to participate in a student exchange program and live in the Dominican Republic for a summer or a semester.
 - They were about to graduate from college and begin their first job working for an international business that is sending them to work in the Dominican Republic. Have students jot down items individually. Follow with a whole class discussion. Make a list on the chalkboard or an overhead projector of frequently mentioned items.
3. Inform students that they are now going to learn about life in the Dominican Republic from the real-world experience of Peace Corps Volunteers who have served there. Mention that these are primary source documents. Volunteers were either interviewed or asked to complete a questionnaire that focused on what they thought life was like in the Dominican Republic.
4. Provide each student with a copy of one of the two *Primary Source Packets* on pages 26-36. There is one packet for middle school students and another, more extensive one, for high school students. The packets contain primary source material that summarizes Peace Corps Volunteers' impressions and feelings about the location and the community where they served—and also about the geography and climate of the Dominican Republic.

*Each country has its own way
of saying things. The important
thing is that which lies behind
people's words.*

Freya Stark, Author



5. We suggest that you organize this learning experience as a cooperative learning “jig-saw” activity. Divide students into groups of three. In their groups of three, each student will be reading different material in the *Primary Source Packet*. Designate students in each group as #1, #2, or #3. Student #1 will be reading about “My Location,” Student #2 will be reading about “My Community,” and Student #3 will be reading about “Geography and Climate.”
6. Have all #1s move to one table; have all #2s move to another table; and have all #3s move to another table. Ask students to read their section silently and then, at your signal, have them discuss what they have learned with the others at their table.
7. Provide each table with enough copies for all students of the graphic organizer on Worksheet #2 on page 25. Ask students to record notes on the organizer as they are reading and discussing their assigned section of the *Primary Source Packet*.
8. After students have read about their assigned topic and recorded their findings on the graphic organizer, ask them to return to their original group of three with their completed graphic organizer and share their responses with the other two students in their group. As they are listening to and learning from their partners, ask students to take additional notes on their graphic organizers.
9. After listening to their partners and searching the Peace Corps Volunteers’ questionnaire responses for answers, bring the class together to discuss:
 - What picture is emerging of the Dominican Republic?
 - Is it a complete picture?
 - How would your life be different if you lived in the Dominican Republic? How would it be the same?
 - How accurate were your initial assumptions about the Dominican Republic as compared to what you have learned?
 - Have each student add additional information under each question on Worksheet #2.

Journal Entry:

Ask students to reflect on the following two questions and to record their answers in their journals:

- Compare your life in the United States with life in the Dominican Republic, based on the categories provided in the two graphic organizers you’ve completed (Worksheets #1 and #2) and the Volunteer quotes.
- Describe what you’ve discovered about how “*where you live influences how you live.*”

Worksheet #2

You live in the Dominican Republic.
How does where you live influence how you live?

Directions: Read the Volunteers' quotes in your Primary Resource Packet and write examples under each category.

- The effect of weather and climate on people's daily lives.
- The effect of geographic features (mountains, rivers, forests, oceans, etc.) on daily life.
- The kind of transportation that is available to people.
- The ways in which people earn a living.
- The types of homes in which people live.
- The kinds of roads people on which travel on.
- The availability of water and electricity and other necessities of life.

Primary Source Packet (Middle School Level)

Interviews with Peace Corps Volunteers Serving in the Dominican Republic

My Location

“I live in the village of La Pina in the northwest of the country in the hills of the central mountain range. I am nine kilometers south of the town of Los Almacigos. It is a 25-35 minute motorcycle ride up and down hills on a dirt road. It’s a bumpy ride, but is breathtaking: a view of palms, pines, and rolling hills of farms. Once in town, it’s another 15 kilometer ride northeast to the provincial capital of Sabaneta. It takes an hour (on average) in a crowded minivan. Once in Sabaneta, it takes anywhere from four to six hours to get to the capital, Santo Domingo. It’s a long but beautiful trip through all parts of the country: mountains, cities, rivers, lush forests and deforested areas, and fields of rice and farms of plantains.” (Alexandra Fowler)



“During my two years of Peace Corps service, I have lived in two different areas of the country. My first year of service was in a village (El Arrozal) in the region of Monte Cristi. Monte Cristi is located in the northwest tip of the island. My first site was in a town called Villa Vasquez in the community, El Arrozal. Villa Vasquez is located 20 minutes from the town of Monte Cristi. It is a two-hour ride to Santiago, the second capital, and an additional three to Santo Domingo. Traveling from Santo Domingo to Villa Vasquez was a great way to learn about the climate and the landscape. You pass through rice fields, mountainsides, plains, deserts, various colors of soil (red, brown, black, and white). The area of Villa Vasquez is desert, similar to Arizona, with cactus and few trees. The climate is dry with little-to-no rain.

“My current site is Santo Domingo. I live in a town about 45 minutes from the center of Santo Domingo on public buses or cars. The town is not much different from a large town in the United States. There are large buildings 20 stories high, resort hotels, banks, supermarkets, shopping centers, casinos, fast food restaurants, six-island gas stations with food marts, and a lot of traffic. The climate is humid, and there are a variety of trees—from palm trees to fir trees.” (Michele Stora)



“I live about halfway up a mountain in a beautiful valley. The community is in the south/central part of the country. It’s about three hours from the capital. For part of the trip to my village (Los Martinez), I get into a big, old Chevrolet along with eight people, or I use our community’s truck, if it’s a transport day (Wednesday, Saturday, or Sunday). Our truck is bright red. It’s always full of people sitting on top of sacks of vegetables and usually has chickens tied on the back. On the trip, you see tall, green mountains in the distance. When you reach the bottom of the mountain, you either continue up in the truck or get out of the car and wait for someone with a horse or motorcycle to give you a ride. Our road is really steep and winding. When it rains, it is impassible in a vehicle. But once you reach the top, you can see the ocean. The scenery is amazingly beautiful.” (Leslie Dominguez)



“Las Lagunas has a population of about 5,000, and the town is spread out along a rolling plateau. The houses are most densely placed at the entrance of the town. The quality of life worsens as you travel away from the entrance of the town. Most houses are constructed of palm wood planks with cement floors. Only the families that live in cement houses have water running directly to their houses. The majority of houses have outdoor latrines and zinc roofs. The primary source of income is farming. Few farmers are able to produce crops on a large scale. They produce only enough to feed their families. I would say that my town is similar to the majority of villages in the Dominican Republic.” (Kristen Caputo)



My Community

“About 30,000 people live in Hato Del Yaque now, but it wasn’t always like this. My community is called a ‘government relocation project.’ In 1979, there was a large hurricane in the Dominican Republic, and all the people who lived alongside the river in Santiago lost their homes. For the next two years, these people had to live in a school while they got their lives back together. The government tried to help by building a community about 10 kilometers outside Santiago, which is now Hato Del Yaque. The town consists of six long, straight streets of cement duplex houses. Each side of the duplex is the same. They all have four rooms—two bedrooms, a living room, and a kitchen. There is an outside bathroom with a latrine and septic tank. There are no paved roads or telephones. There is running water, but it is only available every few days for a few hours. When the water comes, we fill our tanks and then use it as needed. There is also electricity, but it usually goes out for at least a few hours every night.” (Niki Scott)



“El Arrozal, my first site, was a small *barrio* (neighborhood) outside of Villa Vasquez. Less than 600 people live there. The *barrio* has three different housing sectors. The first sector has two-story, cement buildings that contain four three-bedroom apartments each. The apartments are constructed of cement. They are painted in bright colors—usually blue, green, or pink. They have a closed front balcony, a small kitchen, a living room/dining room, bathroom with modern facilities, and a small utility room off the kitchen. The second sector, behind the first, consists of small two-room wooden houses with dirt floors. Usually one room is used as a bedroom and the other as an all-purpose room. The kitchen is located outside but is connected to the house by a roof. The bathroom is also outside and divided into two separate sectioned-off areas. One is the latrine and the other is used for bathing. The third sector, where I lived, is made up of cement-block houses. Corrugated zinc is used for the roofs. The houses have either three or four rooms, a front porch, and cement floors. The bathrooms are similar to the wooden-house sector. The neighborhood has no running water, but does have electricity. The majority of women are housewives or employees in other peoples’ homes. The majority of men work in the local rice fields. The families who live in the apartments in the first sector are mainly teachers and office workers.

“My second site, in a town just outside of Santo Domingo, the capital, is very modern and the exact opposite of El Arrozal. The town is similar to many of the larger towns in the country. It has running water, electricity, paved streets, open-air produce markets, pharmacies, corner stores, ice cream shops, hardware stores, and specialty stores. The majority of houses are constructed of cement.” (Michele Stora)

“I have the good fortune of living in a rural fishing village off the beautiful Samana Bay. The houses are brightly colored and made of wood or cement blocks with smooth-finished walls. The community consists of about 1,500 people. The main sources of income are fishing and agriculture. The village has lush greenery year-round due to a propensity of rain in the area, as well as a nice breeze coming off the water. I live in a small, pale-green, cement block house about 20 yards from the beach. I sometimes worry about hurricanes, as I live along the “hurricane route,” and my house only has a zinc roof. The village is isolated. Access is through a single, poorly constructed dirt road which has more potholes than you can imagine.”
(Darshana Patel)



“The population of the city of Hato Mayor is between 50,000 and 60,000. In this small city, there is a small concentration of upper- and middle-class Dominicans. The bulk of the population is lower-middle class and poor. When I first came here, I was surprised at the size of the commercial district. In addition to innumerable corner grocery stores located throughout the town, there are blocks of stores of virtually any kind, such as hardware, appliances, travel agencies, clothing and shoe stores. I can buy the same basic food here as I can in the capital. My house is made of cement blocks with a zinc roof. It can only be described as small. The total inside, door-to-door measurements are 22 by 10, which is divided into a living room, a bedroom, and a kitchen. I have a fully functioning indoor bathroom with a shower. The furnishings are basic and I love it!” (Mary Bosy)



Geography and Climate

“The physical geography and climate dominates the lives of the people in my community because they are dependent on the land. If there is too much or too little rain, their lives grow very difficult. If it’s very hot or raining, people stay home. No work can be done outside when it rains, and children often are kept from school because of the rain. The climate reflects the physical appearance of my community: If the weather has been good, the fields will be filled with healthy crops, the people will be happy, and the grocery store shelves will be brimming with goods. If the weather has been bad, the opposite situation occurs.”

(Kristen Caputo)



“The country is very mountainous and varied. I live in the northeast where it is flat and dry. It rains usually every day from May to January. We have had a dry year this year to the extent that rivers dried up, but it has started to rain again and the rivers are flowing and clean. The weather is very hot and humid most of the time, with winters a little cooler at night. When it does rain a lot, rivers can flood and lock people in for a week or so.” (Margaret Borelli)



“I live in a hot place, so rain plays an important role in daily life. It provides drinking water and fills the rivers for washing clothes and bathing. Yet, people won’t go out in the rain. Sometimes meetings are called off because of rain, and children are kept home from school. This is particularly true in the countryside.” (James Weglarz)

Primary Source Packet (High School Level)

Interviews with Dominican Republic Peace Corps Volunteers

My Location

“I live in the town of Hato Del Yaque, just outside of Santiago, which is the second largest city in the country. It’s in the middle of the country, so there are a lot of people who have never even seen the beach. Although the beach is only a couple of hours away, most people don’t have money to travel for pleasure. To get to my town from Santo Domingo, the capital, I can catch a bus that goes straight to Santiago along a four-lane highway. The ride takes about two hours, and the scenery is varied. There are lots of hills covered with palm trees and even some pine trees between big green rice fields. When I arrive in Santiago, I have to catch a public car. These cars run a specific route like a bus, and stop so people can get off and on. The big difference is it’s a car—three people in front (including the driver) and four in the back. At the bridge, I catch a minivan to my town. We have to wait until the van fills up before we go. ‘Full’ is about 25 people, so it’s very crowded. It takes about 15 or 20 minutes to get from the bridge to my house. The road passes through city neighborhoods and rice and pineapple fields.” (Niki Scott)



“I live in the village of La Pina in the northwest of the country in the hills of the central mountain range. I am nine kilometers south of the town of Los Almacigos. It is a 25-35 minute motorcycle ride up and down hills on dirt roads. It’s a bumpy ride, but the scenery is breathtaking: palms, pines, and rolling hills of farms. Once in town, it’s another 15 kilometer ride northeast to the provincial capital of Sabaneta. It takes an hour (on average) in a crowded minivan. Once in Sabaneta, it takes anywhere from four to six hours to get to the capital, Santo Domingo. It’s a long but beautiful trip through all parts of the country: mountains, cities, rivers, lush forests and deforested areas, and fields of rice and farms of plantains.” (Alexandra Fowler)



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“My current site is Santo Domingo, which is the exact opposite of Villa Vasquez. I live in a town about 45 minutes from the center of Santo Domingo on public buses or cars. The town is not much different from a large town in the United States. There are large buildings 20 stories high, resort hotels, banks, supermarkets, shopping centers, casinos, fast food restaurants, six-island gas stations with food marts, and a lot of traffic. The climate is humid, and there are a variety of trees—from palm trees to fir trees.” (Michele Stora)



“I live in the town of Las Lagunas. It is located in the southwest of the country. It is the closest town to Pico Duarte, the highest peak in the Dominican Republic. My town sits on a plateau about 3,000 feet high. The geography is rough. It is forested but not densely. The main tree is pine. On public transportation, it takes between four and six hours to get from Las Lagunas to Santo Domingo. From the capital, one would take a bus going to Azua. Once in Azua, you take another bus to Padre las Casas. Then you take a truck up the mountain to my site. Once you leave the capital and begin to travel west, the landscape is flat and covered either with mesquite or cactus, or flat farm land. In the far distance, you can see many mountain ranges. Once through Azua, you begin to climb in elevation and the vegetation grows greener. Population density is largest in the major cities.” (Kristen Caputo)



“I live about halfway up a mountain in a beautiful valley. The community is in the south/central part of the country. It’s about three hours from the capital. For part of the trip to my village (Los Martinez) I get into a big, old Chevrolet along with eight other people, or I use our community’s truck, if it’s a transport day (Wednesday, Saturday, or Sunday). Our truck is bright red. It’s always full of people sitting on top of sacks of vegetables. On the trip, you see tall, green mountains in the distance. When you reach the bottom of the mountain, you either continue up in the truck or get out of the car and wait for someone with a horse or motorcycle to give you a ride. Our road is really steep and winding. If it rains, it’s often impassible in a vehicle. But once you reach the top of the mountain, you can see the ocean. The scenery is amazingly beautiful.” (Leslie Dominguez)



“My town, Hato Mayor, is located 65 miles northeast of the capital city, Santo Domingo, almost midway between the Caribbean Sea to the south and the Atlantic Ocean to the north. Hato Mayor is really a small city with a population of between 50,000 and 60,000. Physically, Hato Mayor is not very attractive, but the surrounding countryside is lovely. This is cattle and citrus fruit country, and even with the erratic rainfall of the past few years, the hills and trees and pastures are green and lush. Travel between Hato Mayor and Santo Domingo takes about two and a half hours on a small, commercial bus. Along the way, you see sugarcane fields and various beach resorts located on the Caribbean. Traffic becomes more congested as you head into Santo Domingo.” (Mary Bosy)



My Community

“I live in Los Campachos. It has a population of about 2,000 people. Closer to the town of Moca, there are nice looking cement houses with spacious yards, but also poorer looking wooden shacks. The primary source of income is agriculture (plantains, yucca, and bananas) and raising animals (pigs, chickens, and goats). I hear roosters before the crack of dawn and horses’ hooves in the early morning carrying food for the animals. People work very hard and get up before the sun rises to begin their daily chores.” (Juvy Bertoldo)



“About 30,000 people live in Hato Del Yaque now, but it wasn’t always like this. My community is what is called a ‘government relocation project.’ In 1979, there was a large hurricane in the Dominican Republic and all the people who lived alongside the river in Santiago lost their homes. For the next two years, these people had to live in a school while they got their lives back together. The government tried to help by building a community about 10 kilometers outside Santiago, which is now Hato Del Yaque. The town consists of six long, straight streets of cement duplex houses. Each side of the duplex is the same. They all have four rooms—two bedrooms, a living room, and a kitchen. There is an outside bathroom with a latrine and a septic tank. There are no paved roads or telephones. Running water is available once every few days for a few hours. There is also electricity, but it usually goes out for at least a few hours every night. Hato Del Yaque is not just the government houses any more. Lots of people have moved here from the country during the last 10 years.” (Niki Scott)



“La Pina is a small village whose inhabitants are mainly farmers. Of course, there are teachers and store owners, but most men spend their days on the hillsides planting and harvesting sugar cane, yucca, sweet potatoes, beans, peas, rice, and plantains. The women spend most of the day cooking and cleaning. They sweep and mop their houses, wash their clothes by hand, and cook over a wood or propane-fueled earth stove. The kitchen is almost always a detached structure. The houses are most often made of wood. My little cottage is a pine house with a zinc roof that reaches unbelievably high temperatures in the summer.” (Alexandra Fowler)

“El Arrozal, my first site, was a small *barrio* (neighborhood) outside of Villa Vasquez. Less than 600 people live there. The *barrio* has three different housing sectors. The first sector has two-story, cement buildings that contain four three-bedroom apartments each. The apartments are constructed of cement with smoothed-out walls and roof. They are painted in bright colors—usually blue, green, and pink. They have a closed front balcony, a small kitchen, a living room/dining room, a bathroom with modern facilities, and a small utility room off the kitchen. The second sector, behind the first, consists of small two-room wooden houses with dirt floors. Usually one room is used as a bedroom and the other as an all-purpose room. The kitchen is located outside but connected to the house by a roof. The bathroom is also outside and is divided into two sectioned-off areas. One is the latrine and the other is used for bathing. The third sector, where I lived, is made up of cement-block houses. Corrugated zinc is used for the roofs. The houses have either three or four rooms, a front porch, and cement floors. The bathrooms are similar to the wooden house sector. The neighborhood has no running water, but does have electricity. The majority of women are housewives or employees in other peoples’ homes. The majority of men work in the local rice fields. The families who live in the apartments in the first sector are mainly teachers and office workers.

“My second site is in a town just outside of Santo Domingo, the capital. It is very modern and the exact opposite of El Arrozal. The town is similar to many of the larger towns in the country. It has running water, electricity, paved streets, open-air produce markets, pharmacies, corner stores, ice cream shops, hardware stores, and specialty stores. The majority of houses are constructed totally of cement.” (Michele Stora)



“I have the good fortune of living in a rural fishing village off the beautiful Samana Bay. The houses are brightly colored and made of wood or cement blocks with smooth-finished walls. The population is about 1,500. The main sources of income are fishing and agriculture. The village has lush greenery year round due to a propensity to rain in the area, and a nice breeze coming off the water. I live in a small, pale-green, cement block house about 20 yards from the beach. I sometimes worry about hurricanes, as I live along the “hurricane route” and my house only has a zinc roof. The village is isolated, as access is through a single poorly constructed dirt road.” (Darshana Patel)



Geography and Climate

“The climate here is fairly regular all year round. The average temperature is about 85 degrees. It can be as hot as 100 degrees during the summer and as cold as 65 degrees during the winter. It rains more during hurricane season (July-November). Certain areas of the country have different climate norms. Some areas are very dry and require lifestyles suitable to lack of water. Other areas get so much rain that schools and stores close due to road conditions. It is cooler at higher elevations in the mountainous regions. The people most affected by the climate are those in agricultural communities who depend upon rain for harvesting and planting.” (Michele Stora)



“From April to October, the Dominican Republic has temperatures in the 90s with comparable humidity. Everyone, regardless of nationality, complains of the heat, particularly when coupled with a power outage, making electric fans useless. If at all possible, walking is discouraged between noon and 4 p.m. Personally, I avoid bus travel during this same time period simply because the excessive heat becomes as uncomfortable for me in the overcrowded bus.” (Mary Bosy)



“The Dominican Republic is fairly mountainous, and there are several different climates. In the northwest, where I live, it is quite dry. As you go further north, you find cacti forests and a virtual desert. In the central area, the land is flat and has become the largest, most productive farming area. The southeast is much more humid and lush. The intense heat slows life down here. People move at a more leisurely pace. There is a large migration to the major cities from the countryside. People move to find jobs and food, because the mountains that they have farmed for so long are no longer producing due to deforestation. Soil erosion is taking its toll.” (Siobhan Foley)



Understanding Demographics

The Module at a Glance

This module is designed to help students understand that demographic data are one of many information sources about a country. Students will see that demographic information can help answer the question, *How does where we live influence how we live?* from the vantage point of *data*. Students will compare demographic information from the United States and the Dominican Republic. They will also examine the strengths and limitations of data as an information source about a country and its people.



Lesson One: Understanding Demographics

Objectives:

- Students will be able to explain the term “demographics.”
- Students will compare demographic data from the United States and the Dominican Republic.
- Students will be able to describe the difference between learning about a country from numbers (data) and from observations by people who have been there.

Instructions:

1. You might want to begin this learning activity by reminding students that one of the questions we’re focusing at in this unit is: *How does where we live influence how we live?* As they’ve seen, one way to learn about a country is to look at maps and listen to what people have to say in interviews. Another way to find answers to the question is to look at demographics—numerical data and statistical characteristics of human populations. Statistics deals mainly with numbers. And numbers can tell stories—about a class, a school, a community, a population, a nation, and the world.
2. Clarify the meaning of the word demographics by noting: We can collect demographic data about our class. To do this, we need to determine the categories of information we want to collect about our class. For example, we can collect data on:
 - What percentage of our class is male versus female?
 - What percentage of our class was born between January and June?

Enduring Understandings:

- Where we live influences how we live.
- Demographics are one source of information about a country.

Essential Question:

- How much information do we need to gain a complete picture of a country?

Standards:

National Geography Standards:

- The World in Spatial Terms
How to use maps and other geographic representations, tools (charts, graphs), and technologies to acquire, process, and report information.
- Human Systems: The characteristics, distribution, and complexity of Earth's cultural mosaics.

Assessments:

Demographics Matrix; Journal Entries

Materials:

Fact File for the Dominican Republic; World Bank Data Chart; Graphic Organizer; A Comparison Matrix.

Time: One-two days

- What percentage of our class have grandparents who moved to the U.S. from another country?
3. You may want to have students collect data on the questions above and convert it into percentages. Explain to students that this represents demographic data about their class. Ask students: What do these numbers tell us? What don't they tell us? Are they accurate? Does this data give us a small snapshot of our class or does it give us the big picture? What other questions do you want to ask? What else might be needed to give a complete picture of our class?
 4. Give students a copy of Worksheet #3, *The Fact File for the Dominican Republic* on page 39. You can also access this information and more by visiting the Web site: www.peacecorps.gov/wws/facts.
 5. Walk students through the following categories as an introduction to what you can learn about a country from numbers: population, birth rate (per 1000), death rate (per 1000), life expectancy at birth, age distribution, literacy, religions.
 6. Ask students: What does this demographic information tell you about the Dominican Republic that you didn't learn from reading the interviews with Peace Corps Volunteers or by looking at maps? What did the interviews and maps tell you about the Dominican Republic that the demographics do not? What can numbers tell you? What can't they tell you? Note: You may want to stop this lesson here for middle school students. The activities suggested below may be more developmentally appropriate for high school students.
 6. Suggest to students that numbers can sometimes "tell a story." Give students a copy of Worksheet #4 on page 41 a data sheet adapted from a portion of *The World Bank's World Development Report for 1999/2000, Entering the 21st Century*. If students are interested in looking at more demographic data on the Dominican Republic, they can find it on the World Bank's Web site: <http://devdata.worldbank.org>. The World Bank (<http://www.worldbank.org/html/extdr/regions.htm>) has extensive data on each developing country, updated annually. Once you have selected a country, choose the "Country Data Profile" link to see a table with complete information about the country.

Worksheet #3

Fact File for the Dominican Republic

Name:	Dominican Republic	Birth Rate (per 1000):	27
Geographic Coordinates:	19 00N, 70 40W	Death Rate (per 1000):	6
Land Area:	18,680 square miles, slightly more than twice the size of New Hampshire	Life Expectancy at Birth:	70 years
Land Boundaries:	Haiti	Age Distribution:	36% under age 15, 4% over 65
Coastline:	1,288 km along Caribbean Sea and North Atlantic Ocean	Literacy:	82.1% over age 15 (1995)
Highest Point:	Pico Duarte 10,420 ft	Languages:	Spanish
Principal Towns:	Santo Domingo (capital), Santiago de los Caballeros, La Vega	Religions:	Roman Catholic 95%
Percent Urban:	56	Natural Resources:	Nickel, bauxite, gold, silver
Date of Independence:	27 February 1844 from Haiti	Main Exports:	Ferronickel, sugar, gold, coffee, cocoa
Suffrage:	Universal and compulsory at age 18 or all married persons regardless of age (members of the armed forces and police cannot vote)	Currency:	1 Dominican peso = 100 centavos
Ethnic Groups:	Mixed 73%, white 16%, black 11%	Environmental Issues:	Water shortages; soil eroding into the sea damages coral reefs; deforestation
Population:	8.3 million (mid-1997)	Natural Hazards:	Subject to occasional hurricanes (July to October)
		Peace Corps Entry:	1962



7. Provide students with a copy of *Worksheet #5: A Comparison Matrix* on page 42. Students will be able to use this comparison matrix to compare data on the United States and the Dominican Republic.
8. Have students review the abbreviated *World Bank Data Chart* with selected information on both the United States and the Dominican Republic. Ask students to work in pairs to complete the Comparison Matrix, using the data sheet as a reference point.
9. When they have finished, ask students to pair with another set of students to compare and discuss their findings. Next, ask students: What story do these numbers tell us? Looking at data from the United States and the Dominican Republic, what conclusions can you draw now about the question: *How does where we live influence how we live?*
10. In a whole class discussion, have students draw conclusions row by row in the *Comparison Matrix* and in the *World Bank Data Chart*.

Journal Entry:

Ask students to respond in their journals to the questions:

- How does where we live influence how we live?
- How have maps, interviews, and numbers helped you answer this question?
- What other information sources do you think you need to gain a complete picture of the Dominican Republic?

Choices and Explorations Extension Activity:

If your students enjoy working with data, have them visit the World Bank Web site (www.worldbank.org) to research other data categories that provide information about the Dominican Republic.

Worksheet #4

World Bank Data Chart

WORLD BANK WORLD DEVELOPMENT INDICATORS

	Dominican Republic	U.S.A.
Prevalence of child malnutrition (% of children under age 5)	6%	1%
Life expectancy (males in 1997)	69	73
Life expectancy (females in 1997)	73	79
Urban population in 1998 (% of total population)	64%	77%
Public expenditure on education in 1996 (% of GNP)	2.0%	5.4%
Net enrollment in primary school (% of relevant age group)	81%	95%
Net enrollment in secondary school (% of relevant age group)	22%	90%
Expected years of schooling in 1995	11	16
Number of daily newspapers in 1996 (per 1000 people)*	52	212
Number of radios in 1996 (per 1000 people)*	177	2,115
Number of TVs in 1997 (per 1000 people)*	84	847
Number of telephone main lines in 1997 (per 1000 people)*	88	644
Number of mobile phones in 1997 (per 1000 people)*	16	206
Number of internet hosts in 1999 (per 10,000 people)*	6	1,131
Number of high technology exports in 1997 (% of mfg. exports)	23%	44%
Unemployment rate in 1996-1997	30%	4.9%

*The population of the Dominican Republic is 8.2 million.

*The population of the United States is 275.9 million

Data presented in this table is taken from The World Bank publication: *Entering the 21st Century: World Development Report 1999/2000*. Oxford University Press, 1999.

Worksheet #5

Graphic Organizer: A Comparison Matrix

Category	Dominican Republic	U.S.A.	What Conclusions Can You Draw?	What Questions Do You Have?
Prevalence of Malnutrition in Children Under 5				
Enrollment in Primary School				
Enrollment in Secondary School				
Expected Years of Schooling				
Number of Television Sets (Per 1000 People)				
Number of Telephone Main Lines (Per 1000 People)				
Life Expectancy				

Beyond Demographics

The Module at a Glance

This module is designed to help students see that each new information source that is used provides another and more complete picture of a country. Students view a video produced by the Peace Corps about life in the Dominican Republic. The video helps the country come alive by focusing on the people, customs, sights, and sounds of the Dominican Republic. After viewing the video, students are helped to see how necessary it is to draw on multiple sources of information (maps, direct observations, demographic data, and video data) to gain a complete and accurate picture of a country. Each new source of data provides a new lens for them as they investigate the Dominican Republic and its people.



Objectives

- Students will be able to explain life in the Dominican Republic.
- Students will describe the emerging picture of the Dominican Republic as viewed through multiple data sources (the video; demographic data; maps; and direct observations of Peace Corps Volunteers).
- Students will examine the essential question: How is our picture of a country dependent upon the sources we use to investigate it?

Instructions

1. Explain to students that this lesson will focus on these essential questions:
 - How is our picture of a country dependent on the sources we use to investigate it?
 - How does using a variety of information sources help us gain a more complete picture of a place and its people?
 - No matter where we may live, how are we all connected with each other and the world?
2. Remind students that we've been talking about how where you live influences how you live. We've formed a general impression of the Dominican Republic through maps and demographics. We've read Peace Corps Volunteers' statements about the geography, climate, location, and communities they live in. Each source of data gives us a part of the picture.

Enduring Understandings:

- To gain a complete and accurate picture of a country, we need to draw on multiple sources of information and evaluate their quality and their perspective.
- Where we live influences how we live. Yet all of us are connected and interconnected with each other and the world.

Essential Questions:

- How is our picture of a country dependent on the sources we use to investigate it?
- How does using a variety of information sources help us gain a more complete picture of a place and its people?
- No matter where we may live, how are we all connected with each other and the world?

Standards:

National Geography Standards

- Human Systems: The characteristics, distribution, and complexity of Earth's cultural mosaics.

National Council for the Social Studies:

- Culture (NCSS Theme I): Students can compare the similarities and differences in the ways groups, societies and cultures meet human needs and concerns.

Assessments: *Video Matrix*; Journal Entry; Performance Checklist

Materials: *Destination: Dominican Republic Video*; *Video Matrix*

Time: One-two days

Ask students to form pairs and respond to the following question:

- What did you learn about the Dominican Republic from the quotes of Peace Corps Volunteers?
 - How was this different from what you learned from analyzing demographic data?
3. Once students have had a chance to respond to these questions, ask them: If you wanted to get a sense of what the Dominican Republic really looks like—a sense of the faces, sounds, lives of the people, especially those your age—where would you go to get that kind of information?
 4. Have a brief, whole class discussion. Answers might include: take a trip, ask a friend, look at photos, or watch a video.
 5. Inform students that shortly they will be seeing a Peace Corps video about the Dominican Republic and its people. The video will “put a face on a place” because places are more than geographic features and demographic numbers.
 6. Before showing the video, ask students to imagine again that they are in one of the following scenarios presented earlier:
 - They just learned that their family is moving to the Dominican Republic.
 - They are going to participate in a student exchange program and live in the Dominican Republic for a summer or a semester.
 - They are about to graduate from college and begin their first job working for an international business that is sending them to work in the Dominican Republic.
 7. Ask students: What more would you need to know about the Dominican Republic before going there? Write student responses on the board.
 8. After a brief class discussion, inform students that they will be viewing three different locations in the Dominican Republic: a small city, Hato Mayor; a town, Los Toros; and a small village, El Jamo.
 9. Provide students with a copy of the *Video Matrix* on page 47.
 10. Review the matrix with students. Let them know that, as they view each location, you will give them time to fill in the appropriate boxes in the matrix. Let them know that there may not be answers to each and every category listed, and it is alright to leave a box blank. Depending on the age and ability level of students, review the vocabulary (e.g., terrain) and meaning of phrases (e.g., How does the pace of life seem to you?)

11. To help students process the information in the video, you may wish to show it in three segments. The first segment focuses on life in the city of Hato Mayor. The second focuses on Los Toros, and the third on El Jamo. After viewing each segment, stop the video and ask students to work in small groups to complete the column of the matrix that deals with the particular location shown.
12. Before students view the first segment of the video, ask them to focus on the questions:
 - What am I learning about the Dominican Republic from the video that I didn't learn from the other data sources in Modules 1 and 2?
 - How does using a variety of information sources help me to gain a more complete picture of a place and its people?
13. Show the video in segments and give students time to fill in the *Video Viewing Matrix*. After showing the video, have students complete the Video Matrix in pairs and conduct a class discussion on the questions in #12 above.
14. Then pose the following questions for class discussion:
 - What did you learn about the Dominican Republic that you didn't know before?
 - How is where you live similar and different from what you saw in the video?
 - How do you think you would feel if you couldn't count on having electricity every day?
 - How would you feel if you were the boy who had to walk one hour to get to school?
 - How would you feel if you were a Peace Corps Volunteer living in Los Toros?
 - If you were to move to Hato Major, how would your life be the same as it is now?
 - How would it be different?
 - What did you learn from the video that you didn't learn from the interviews and demographics?
 - After seeing the video, how do you think where we live influences how we live?

I was having doubts about my abilities as a science teacher until I found a diagram in the back of one of my students' notebooks. The diagram changed my perspective. In her notebook, my student had drawn the unlikely comparison of an animal cell to her homestead in Swaziland. She had given the grandmother of the homestead the role of the nucleus. The mitochondria, the organelle which supplied energy to the cell, was represented by the sisters.

I called her into the the staff room and asked her to explain what she had written. She said that she had given the grandmother the role of the nucleus because the grandmother decides when and how things get done.

As she continued, I began to see that she had indeed understood the intimate workings of the cell. I was proud of her. "But, Miss," she said, "I don't know why you're happy. I only did this from my own mind to help me understand this better."

"I know," I said. "That's why I'm so proud of you."

*Laura Stedman, Teacher
(RPCV Swaziland)*



Assessment:

1. Ask students to recall one of the scenarios they selected before viewing the video:
 - They just learned that their family is moving to the Dominican Republic.
 - They are going to participate in a student exchange program and live in the Dominican Republic for a summer or a semester.
 - They are about to graduate from college and begin their first job working for an international business that is sending them to work in the Dominican Republic.
2. Ask students to pretend they are the person in one of the scenarios. In this role, have students write a narrative account in response to the following question:
 - If you were the person in one of the three scenarios, how would what you have learned so far about the Dominican Republic help you to adjust to life in the Dominican Republic?
3. Ask students to write their narrative account in a way that would also help others who are going to the Dominican Republic. Provide them with the checklist below to help them structure their narrative accounts.

Checklist for the Narrative Account

- Use what you learned from the maps, the interviews, the demographic data, and the video as you are writing your narrative account.
- Support your opinions with evidence from what you have read and seen.
- Describe how living in the Dominican Republic would be similar to and different from living in the United States.
- Explain what else you would want to know about life in the Dominican Republic in preparation for your experience there.
- Remember that your report will be used to help others who are going to the Dominican Republic.

Worksheet #6

Video Matrix

	Hato Major	Los Toros	El Jamo
What do young people do?			
What seems most important?			
What environmental challenges do people face?			
How do young people get an education?			
How do families earn a living?			
What is the way of life like?			
Even though you live in a different place, how are you similar to and interconnected with the people you meet in the video?			

Life in a Hurricane Zone



The Module at a Glance

This module will use the example of a hurricane in the Dominican Republic to illustrate the fact that natural disasters can have a devastating impact on the lives of people in developing countries. At the same time, they can also bring people together, reinforce interconnections, and reveal surprising traits of heroism. Students will explore the impact of Hurricane Georges and the way that people in the Dominican Republic and the international community responded to the devastation it caused. They will see that working together to respond to a natural disaster can unite people, no matter what their country, in a common bond of humanity.

Objectives:

- Students will be able to use primary source documents to determine the impact of natural disasters on developing countries, like the Dominican Republic.
- Students will be able to explain the way in which physical systems (e.g., a hurricane) can affect human systems (e.g., the life of a community or country).
- Students will be able to describe the way in which people from diverse countries work together to respond to a natural disaster can unite them in a common bond of humanity.
- Students will write a press release describing the impact of Hurricane Georges on the people of the Dominican Republic.
- Students will assume the role of Dominican citizens who are being interviewed about the impact of Hurricane Georges by a reporter from an international television network.

Instructions:

1. Remind students that they have looked at maps, interviews, demographics, and videos to answer the question: How does where you live influence how you live?
2. Explain to students that, in this lesson, they will explore the following essential questions:
 - How do natural disasters affect the life of a country and its people?
 - How can responding to a natural disaster bring a community together and unite people, no matter what their country, in a common bond of humanity?

3. Ask students to form pairs to discuss how they think a natural disaster might bring a community together. Then lead a whole class discussion.
4. Explain to students that in this module, they will read newspaper accounts regarding the impact of Hurricane Georges on the Dominican Republic. They will also read first-hand accounts from Peace Corps Volunteers who were in the Dominican Republic when the hurricane struck. They will explore the question: *How can responding to a natural disaster bring a community together and unite people, no matter what their country, in a common bond of humanity?*
5. Ask students: Has anyone in this class, or in your family, experienced a natural disaster such as a hurricane, tornado, earthquake, avalanche, typhoon, forest fire, etc.? How did it affect your life? How did it affect your community?
6. Help students see the connection between natural disasters and the place where you live. Are there some places that are more vulnerable than others? Focus on the impact of the disaster on the community.
7. One of the realities of living in the Dominican Republic is living in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico hurricane season (from June 1–November 30).
8. This is an opportunity to look at the physical system of a hurricane (i.e., what a hurricane is, how it forms, why it is capable of doing widespread damage, the kinds of damage it can do, and when and where hurricanes may strike) to address the National Geography Standard: *Students will be able to explain how physical systems affect human systems.*
9. Ask students to read the information on “*What Is a Hurricane?*” on page 51. In addition, have them access the National Hurricane Center’s Web site (www.nhc.noaa.gov) on the Internet. A list of related Web sites may also be found at the end of this unit on page 60.
10. Have students underline the most important information using a highlighter.
11. After students have finished reading about hurricanes and have underlined the most important information, ask them to write a “two minute paper” summarizing the big ideas they have learned about hurricanes.

Enduring Understandings:

- Natural disasters are great tragedies. However, they can bring people together, reinforce interconnections, and reveal surprising traits of heroism.
- Working together to respond to a national disaster can bind people together in a common bond of humanity.

Essential Questions:

- How do natural disasters affect the life of a country and its people?
- How can responding to a natural disaster bring a community together and unite people, no matter what their country, in a common bond of humanity?

Standards:

National Council for the Social Studies:
Culture (NCSS Theme I): Social studies programs should include experiences that provide for the study of culture and cultural diversity so that the learner can:

- Compare similarities and differences in the ways groups, societies, and cultures meet human needs and concerns.

National Geography Standard:

- Environment and Society. The geographically informed person knows: How physical systems affect human systems.

Language Arts Standards:

- The learner demonstrates competence in the general skills and strategies for reading a variety of informational texts.
- The learner demonstrates competence in the general skills and strategies of the writing process.

Assessment:

Performance Task: The student will demonstrate the ability to “step into the shoes” of a Dominican citizen (i.e., child, teenager, parent, teacher, farmer, etc.) who has experienced Hurricane Georges. As if he/she were a Dominican, the student will respond to questions about the impact of the hurricane in an interview with a television reporter. The student will also select one way to portray how he or she felt before, during, and after Hurricane Georges.

Materials Needed:

Excerpts from articles found on the Web sites of *USA Today* and the National Oceanic and Atmospheric Administration. Excerpts from interviews with Peace Corps Volunteers.

Time: Three days

12. Explain to students that, now that they know about hurricanes in general, they are going to have the opportunity to learn about Hurricane Georges, a hurricane that had a devastating impact in 1998 on the people of the Dominican Republic.
13. Have students access the USA Today Web site (www.usatoday.com/weather/hurricane/wgrgedmg.html). Have them read the excerpts from the USA Today articles, “A Look at George’s Long Rampage,” “Hurricane Death Toll in Caribbean Climbs to 370,” and “Hurricane George’s Damage Reports.” Ask students to record information, such as: lives lost; homes damaged; crop damage; impact on the economy; and impact on the country and its people. Students can find more information on the National Hurricane Center’s Web site.
14. Explain to students that in this part of the lesson they will write a “press release” on Hurricane Georges as if they were Peace Corps Volunteers in the Dominican Republic in 1998 when the hurricane struck. The press release is designed to be sent “home” to their local newspaper.
15. To prepare students for writing the press release, read to students, or have students read the transcript of the interview (page 54) with Peace Corps Volunteer Mary Bosy, who was living in the city of Hato Mayor in the Dominican Republic at the time that Hurricane Georges struck. Remind students they have already “met” Mary Bosy in the Dominican Republic video.
16. Read to students, or have students read excerpts from the interview with former Peace Corps country director for the Dominican Republic, Natalie Woodward (who was in the Dominican Republic during the hurricane). Please note: There is a condensed version of the Natalie Woodward interview for use with middle school students and a more extensive version for use with high school students. Both versions can be found on pages 55-57.
17. As students read the interviews, they can prepare for writing the press release by looking for the answers to the questions provided in Worksheet #7 on page 53.
18. Provide students with a self-assessment checklist (Worksheet #8 on page 58) for writing the press release.



Hurricanes...Unleashing Nature's Fury

A PREPAREDNESS GUIDE

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service
March 1994
NOAA, FEMA, and The American Red Cross

What is a Hurricane?

A hurricane is a type of tropical cyclone, the general term for all circulating weather systems over tropical waters (counterclockwise in the Northern Hemisphere). Tropical cyclones are classified as follows:

- Tropical Depression: An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph (33 knots) or less.
- Tropical Storm: An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39 to 73 mph (34-63 knots).
- Hurricane: An intense tropical weather system with a well defined circulation and maximum sustained winds of 74 mph (64 knots) or higher. In the western Pacific, hurricanes are called "typhoons," and similar storms in the Indian Ocean are called "cyclones."

Hurricanes are products of a tropical ocean and atmosphere. Powered by heat from the sea, they are steered by the easterly trade winds and the temperate westerly trade winds as well as by their own ferocious energy. Around their core, winds grow with great velocity, generating violent seas. Moving ashore, they sweep the ocean inward while spawning tornadoes and producing torrential rains and floods. Each year, on average, 10 tropical storms, of which six become hurricanes, develop over the Atlantic Ocean, Caribbean Sea, or Gulf of Mexico. Many of these remain over the ocean; however, about five hurricanes strike the United States coastline every three years. Of these five, two will be major hurricanes, category 3 or greater on the Saffir-Simpson Hurricane Scale.

Timely warnings have greatly diminished hurricane fatalities in the United States. In spite of this, property damage continues to mount. There is little we can do about the hurricanes themselves. However, the National Oceanic and Atmospheric Administration's (NOAA) National Hurricane Center and National Weather Service field offices team up with other Federal, state, and local agencies; rescue and relief organizations; the private sector; and the news media in a huge warning and preparedness effort.

Please go to the NOAA National Hurricane Web site (www.nws.noaa.gov/om/hurrbro and www.hurricanes.noaa.gov/prepare/winds) for detailed information on how hurricanes form, their potential for damage from both high winds and flooding rains, and what can be done to prepare for them and reduce the destruction they can cause.

Note to Teachers

There is a culminating performance task for this unit on pages 59-61. Help your students prepare for this activity by asking them to complete one of the following activities:

- Create a series of diary entries, written during the week of Hurricane Georges. Write about the days preceding the hurricane, during the hurricane, and after the hurricane.
- Create a series of drawings or sketches made before, during, and after the storm.
- Write a script for a short play that enables you and one or two other fellow Dominican "citizens" to act out what happened for the reporter.
- Access a series of photographs and news articles about the hurricane from the internet. Use them to tell your story.
- Write a letter that you, as a Dominican citizen, wrote to relatives living in the United States immediately after the hurricane, describing to them what happened and what it felt like to live through a hurricane.

20. After students have written their press release, have them share it with a partner for proofreading and feedback. Ask students, as they are reading their partner's press release, to refer to the self-assessment checklist to determine whether all items have been addressed.
21. Provide time for students to revise their press release, based on their partner's comments and feedback. Ask them to give their revised press release to you.
22. Once you have read students' press releases and provided comments and feedback, give students one more opportunity for revision.
23. Then, lead a whole-class discussion on the following questions:
 - How would you have felt if you were in the Dominican Republic when Hurricane Georges hit? Why? Which relief efforts would you have wanted to be involved in?
 - If you had been a Peace Corps Volunteer in the Dominican Republic at the time of Hurricane Georges, how would you have felt?

Choices and Explorations for Extended Learning:

1. To reinforce oral communication skills, you might want to organize a "press conference" on Hurricane Georges. For example, four students might serve on the panel, and two students might serve as the interviewers from the press. The interviewers could ask the panelists such questions as those listed above. If all four panelists are "stumped" on a particular question, the interviewers can take responses from the rest of the class. When they are responding, students must cite the source of their information, and exactly where it can be found.
2. Have students research the impact of powerful hurricanes in their own country. Ask them to compare their findings with the information they have about Hurricane Georges. Have them look for evidence of the enduring understanding: *Natural disasters are great tragedies. However, they can bring people together, reinforce interconnections, and reveal surprising traits of heroism.*



Worksheet #7

Questions to Guide Your Reading of the Hurricane Interviews

- What kind of damage did Hurricane Georges do?

- How many lives were lost?

- Did the people have water, food, or electricity?

- What damage was caused by the floods?

- How did international organizations work together with the leaders of the Dominican Republic to meet basic needs?

- What are some examples of Dominicans helping Dominicans?

- How did people pull together for the common good of all?

- Despite cultural differences, are there basic needs that we all share in common?

Primary Source Document

Interview with Peace Corps Volunteer Mary Bosy on the Impact of Hurricane Georges

“Hurricane Georges, which hit the Dominican Republic September 22, 1998, was a defining experience in my life. This was my third hurricane, but never had I personally seen, heard, or felt winds of 150 mph. God willing, I never will again.

I opted to remain at my site, Hato Mayor del Rey, and for five solid hours Georges tore, pummeled, and destroyed this area. Eighty percent of the homes in this town of 50,000-60,000 were damaged or destroyed; thirty percent of the 80+ schools in the district were destroyed and thirty percent badly damaged. Never had I witnessed such destruction by a natural force.

By 4 p.m. that day, the winds and rain had abated enough so we could go out and survey the destruction. I was staying with friends, and about 1/3 of their zinc roof was gone. Rain was pouring in everywhere.

A neighbor across the street had one of the few houses with a cement ceiling and, when she saw us, she immediately called to tell us to bring what we could save to her house. There were easily 30-40 people in her modest home, but there we came with armload after armload of clothing, and bedding. Everyone brought whatever edible food they could find for all to eat. (I remember contributing bread, cheese, coffee, and Honey Nut Cheerios.)

We knew there was no hope for electricity for a long time, but by the third day with no water, this became critical. My friends and I had small reserves and everyone collected all the rainwater they could. Neighbor lent to neighbor, sometimes only enough to brew coffee or boil a pot of rice.

In Hato Mayor, the Peace Corps established three rural food distribution centers, rented a large truck, and made a total of four round trips from Santo Domingo to rural areas to distribute some 7,000 food bags. My schoolteacher friend and a friend of his worked 15-hour days with me, and never once did I hear a complaint. People were hurting and they had found a way to help. No further incentive was needed.

My boss at the Peace Corps office had asked me to survey the schools and assess possibilities of repair. Within one month after Georges, a very comprehensive program was in effect; through donations, the Peace Corps would supply materials to repair eight rural schools and the communities provided free labor. I also contacted private schools in Santo Domingo, who were generous in supplying textbooks and school supplies to replace what had been lost and/or destroyed. By the end of 1998, 1,500 rural students were back in newly renovated schools.

The Peace Corps program to rebuild hurricane-damaged schools was a perfect example of community strength pulled together for a common cause. At community meetings prior to the renovation of a school, we worked with community leaders and set up committees. The result was awe-inspiring. People were nailing on zinc sheets for a new school roof while others were painting, repairing windows, and hauling debris.

I was most fortunate to have been able to be a part of all this, to have been able to witness first-hand the generosity and concern of one human being for another.”

Primary Source Document

Interview with a Peace Corps Country Director Natalie Woodward

About the Impact of Hurricane Georges

(Short Version for Students in Middle School)

“On September 22, 1998, Hurricane Georges hit the Dominican Republic. The hurricane did serious damage to the country: homes, roads, bridges, dams, and airports were destroyed or seriously damaged. The official death toll was approximately 300.

When the storm passed, a huge amount of trees fell down and the roads were closed. Of course, there were also electrical wires down. The damage was extensive. You could actually see how the rivers had flooded their banks. People came to us and said they had lost their town, they had lost their way of life, they had lost their way of living. They had no idea what to do. But they wanted to continue to stay together. They asked: Could we help them?

We soon realized that there were people isolated—on ‘islands,’ so to speak, created by the rivers—without water and without food. So we chartered a plane. And that night we began packing two- and-a-half pound bags of food. We packed all night. The next morning, the first plane took off. We flew out into one of the worst hit areas and dropped the food, because we couldn’t land. For a week, we dropped the food to people who were in pretty bad shape.

The staff at the Peace Corps office in Santo Domingo realized very quickly that we had people who could help. We had Peace Corps Volunteers—people who were experienced in community organization, spoke Spanish, were well-educated, and who could step forward and do something. We worked with the Dominican government, and we joined with the Red Cross to assist them in setting up their refugee shelters. For a period of time, we managed 16 of the shelters. We worked together.”



Primary Source Document

Interview with a Peace Corps Country Director About the Impact of Hurricane Georges

(Long Version for Students in High School)

“On September 22, 1998, Hurricane Georges hit the Dominican Republic. The hurricane did serious damage to the infrastructure of the country: homes, roads, bridges, dams, and airports were destroyed or were seriously damaged. The official death toll was approximately 300.

Most of the people who died in the storm were poor. Many of them lived in lowlands and built their houses in dry riverbeds. The storm was unusual, in that it carried a large amount of rain into the mountains. And when it hit the mountains, it dropped a tremendous amount of water in a very short period of time. This caused mudflows and severe flooding, and was a serious threat to the people who lived in villages close to the base of the mountains. The people I talked with in the shelter said they had less than a minute to run out of their houses before they were destroyed by the mudflows pouring down the mountain.

The damage was extensive. You could actually see how the rivers had flooded their banks and in doing that, whole towns were destroyed. People came to us and said they had lost their town, they had lost their way of life, they had lost their way of living. They had no idea what to do. But they wanted to continue to stay together. They asked: Could we help them?

The staff at the Peace Corps office in Santo Domingo realized very quickly that we had people who could help. We had people who were experienced in community organization, spoke Spanish, were well-educated, and could step forward and do some things. We joined with the Dominican government and the Red Cross to assist them in setting up refugee shelters. And for a period of time, we managed 16 of the shelters. We worked together.

During that time we were able to acquire a small plane and do an initial fly-over to assess the damage. We did this for several days thereafter. People were isolated in the rivers—on ‘islands,’ so to speak—created by the rivers. We knew that international assistance might take a while. And we also knew that people needed water and food immediately. So we worked with AID (Agency for International Development) and chartered a plane to drop food to people who were stranded.

We began packing two-and-a-half pound bags of food the night before the fly-over. We packed throughout the night. The next morning—I think it was six o’clock or seven o’clock—the first plane took off with the bags of food. We flew out into one of the worst hit areas and dropped the food. We couldn’t land yet; for a week, we dropped the food to people who were in pretty bad shape.

The most amazing thing to me, the most gratifying thing, is that by the time the first flight had returned, the news had gotten out in the local Dominican media and people everywhere wanted to help. Dominican businesses offered help. People who sold sausage and people who had milk companies donated food with no charge. People appeared at the airport to help us pack the food bags. The U.S. Embassy employees helped. People from other organizations, like the Red Cross and Habitat for Humanity, and people from other countries volunteered to get food to those who needed it. They put aside a lot of their differences to work together: to rescue people, donate water, and help them find shelter.

International non-government organizations also helped. The French arrived with Puma helicopters at the end of the week. There's an amazing picture that showed the French pilot, an American pilot, and a Dominican pilot all hugging. It was a hugely emotional moment. People were feeling like they made a difference."



Worksheet #8

Self-Assessment Checklist for the Hurricane Press Release

Note to students: Before you submit your press release, make sure you have checked for the following:

1. Your headline catches the attention of the reader.
2. Your first sentence, or “lead,” sums up the main idea of the article.
3. The specific area (city and country) is listed in the first paragraph.
4. Your first and second paragraphs answer the questions: who, what, when, where, and why.
5. The body of your article tells the extent of the damage and how the disaster affected:
 - The people
 - Their homes
 - Their schools
 - Electricity and water
 - Transportation
 - Agriculture
 - The economy
6. You provide details and examples from primary source documents.
7. Quotes (you can make these up) are used to add interest and support.
8. You illustrate ways that Dominicans helped Dominicans.
9. You give an example of the world community coming together to help the Dominicans after the hurricane.
10. You describe, from your own viewpoint, the way in which a natural disaster can unite people, no matter what their country or culture.
11. Your spelling, punctuation, and grammar are error-free.

Culminating Performance Task

The culminating performance task provides students the opportunity to apply what they have learned in this unit in a real-world context. *The Understanding by Design Handbook* (McTighe and Wiggins, 1999, p. 140) provides useful guidelines for designing a performance assessment task. For information on the *Understanding by Design* process, please refer to page 171 in Appendix A. An example of what the performance task for the Geography Unit would look like using the GRASPS format is provided below. Then, you can give students a copy of Worksheet #9 on page 61.



GOAL: To give students the opportunity to demonstrate their comprehension of the following enduring understandings:

- Where we live influences how we live. No matter where we live, we are all inter-connected with each other and the world.
- Natural disasters are great tragedies. However, they can bring people together, reinforce interconnections, and reveal surprising traits of heroism.
- Working together to respond to a natural disaster can unite people from diverse cultures in a common bond of humanity.

ROLE: You are a Dominican citizen (adult, child, parent, teacher, farmer, or teenager).

AUDIENCE: Parents and community members.

SITUATION: An international television network is planning a series on natural disasters and how, despite the tragedies, they can strengthen common bonds of humanity. The network is sending television reporters to the Dominican Republic. You are one of the individuals they plan to interview.

PRODUCT OR PERFORMANCE: Stepping into the shoes of a Dominican child, parent, teacher, farmer, etc., answer the following questions the reporter will ask during the interview:

- Describe life in the Dominican Republic. What was it like before and after Hurricane Georges?
- How did Hurricane Georges impact your life and the life of your family?
- How did Hurricane Georges impact the life of your community?
- How did people work together to deal with the devastation caused by Hurricane Georges?

Hurricane Web sites

National Oceanic and
Atmospheric Administration
Hurricane Research Division
www.aoml.noaa.gov/hrd

Hurricane Basics
www.hurricanes.noaa.gov/prpare/

Hurricane Hunters
CyberFlight
www.hurricanehunters.com/cyber

Weather links
www.hurricanehunters.com/wx_links

USA Today
Hurricane Information
www.usatoday.com/weather/hurricane/whur

Hurricane Georges Page
www.usatoday.com/weather/hurricane/1998/wgeorges

- How did the international community help?
- Some say that Hurricane Georges united people from different countries and cultures in a common bond of humanity. Would you agree or disagree with this statement? Why?

Your interview will take place in front of a live audience of parents and community members. You will have an opportunity to rehearse your responses with a classmate. You will receive feedback and coaching from other classmates to ensure that your responses demonstrate careful thought and thorough understanding.

STANDARDS FOR SUCCESS: Your interview must meet the following standards.

- Demonstrate a thorough knowledge of the physical and human geography of the Dominican Republic.
- Demonstrate that you have used primary source materials to formulate your answers to the interview questions.
- Demonstrate that you have empathy with what Dominicans experienced during and after Hurricane Georges.
- Demonstrate your mastery of the enduring understandings of this Geography Unit.

Interview Quality Checklist

- ✓ My interview responses demonstrate that I have “stepped into the shoes of a Dominican citizen” and experienced life as a Dominican would have experienced it.
- ✓ My interview responses express feelings as well as facts.
- ✓ My interview responses demonstrate that I have read all of the Hurricane Georges materials provided in this unit.
- ✓ My responses demonstrate that I have an understanding and appreciation of a culture other than my own.
- ✓ I state my responses clearly and support them with data.
- ✓ When I listen to and respond to questions, I speak clearly, look directly at the reporter, and make eye contact.

Worksheet #9

Performance Task:

Preparing for a Television Interview

An international news network is planning a television series on natural disasters. Their focus will be: 1) To determine the impact of the disaster on the life of a community and a country; and 2) To test the hypothesis that natural disasters can often bring people together, no matter what their culture, and unite them in a common bond of humanity

The network is sending a reporter to the Dominican Republic to interview Dominicans about the impact of Hurricane Georges on their community and country. *You* are a Dominican citizen (student, parent, young child, teacher, farmer) and one of the people the network's reporters plan to interview.

Your interview will be nationally televised to an American audience. You will rehearse your interview first before classmates and then before parents and community members.

To prepare yourself to step into the shoes of a Dominican, recall all you have learned about the Dominican Republic in this unit (maps, interviews, videos, newspaper articles, and data charts). Then think about how you would answer the following questions from the network's reporter:

Reporter's Questions

1. Describe life in the Dominican Republic. What was it like before and after Hurricane Georges?
2. How did Hurricane Georges impact your life and the life of your family?
3. How did Hurricane Georges impact the life of your community?
4. How did people work together to deal with the devastation caused by Hurricane Georges?
5. How did the international community help?
6. Some say that Hurricane Georges united people from different countries and cultures in a common bond of humanity. Would you agree or disagree with this statement? Support your response with evidence.

Your interview must meet the following standards. It must demonstrate:

- a thorough knowledge of the physical and human geography of the Dominican Republic.
- that you have used primary source materials to formulate your answers to the interview questions.
- that you have empathy with what Dominicans experienced during and after Hurricane Georges.
- your mastery of the enduring understandings of this Geography Unit.

You will have an opportunity to rehearse your responses with a classmate, and then in a small group. You will receive feedback and coaching from other classmates to ensure that your responses demonstrate careful thought and thorough understanding. Use the *Interview Quality Checklist* on page 60 to self-assess your performance.