GRADE 6: CONCEPTS AND TOOLS OF THE GEOGRAPHER

PROJECT CONN-CEPT

Connecticut State Department of Education
165 Capitol Avenue, Hartford, CT 06145
http://www.state.ct.us/sde/

Supported by a Javits Grant
US Department of Education

Project CONN-CEPT Science Units

Astronomy: Sun, Moon, and Stars (K-2)
The World of Matter (1)
Living Things: Changes, Stages and Cycles (2-3)
Eurekas and Ecosystems (4-5)
Light: A Rainbow of Exploration (4-5)
Sound's Story: H-Ear the Pitch (4-5)
Structure and Function: What's Their Junction? (6)
Weather: The Never-Ending Story (6)
Cells: The Story of Life (7)
Reactions and Interactions (7-8)

Project CONN-CEPT Social Studies Units

Time, Change, and Continuity in History (K)
Local Government (3)
What Makes a Region? An Investigation of the Northeast (4)
Goods, Services, Resources, Scarcity and Systems: An Exploration of State Economics (4-5)
Concepts and Tools of the Geographer (6)
With Liberty and Justice for All: A Study of the U.S. Constitution (6-8)

Units in Preparation

Junior Economist: People, Resources, Trade (1-2)
A Habitat is a Home for Plants and Animals: Needs, Resources, Adaptation and Systems (1-2)
May the Force be With You: Forces, Motion and Simple Machines (2-3)
Comparing Cultures: Traditions, Dwellings, Language, and Cultural Evolution (2-3)
Peopling of the Americas (4-5)
Going to the Source: Using Primary Resources in United States History (6-8)
Exploring the World's Oceans: Chemistry, Geology and Biology (7)
Reactions and Interactions: Chemical Reactions (7-8)

Research for this grant was supported under the Javits Act Program (Grant No. S206A020086) as administered by the Institute of Educational Sciences, U.S. Department of Education. The opinions expressed in this report do not reflect the position or policies of the Institute of Education Sciences or the U.S. Department of Education.

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A Shared Story

The exhibit hall was huge, and publishers' banners, suspended from the ceiling, waved back and forth in the air conditioned room. Hundreds of conference participants filled the aisles. Vendors of curriculum materials, eager to share their colorful and glossy wares with passing teachers and administrators, stood at the edge of their displays offering warm smiles, prizes, and publishers' catalogues.

Charlene and Andrew had carefully planned their tour through the aisles and divided up so that they could see all the materials. They looked forward to their time in the vendor area because they needed curriculum materials in social studies and science for their upper elementary and middle school students. They hoped they would find something good. They wanted coherent, comprehensive units that addressed their state and national standards, had good assessments, required students to think their way through content, provided teachers with teaching strategies, and some guidance regarding how to differentiate the curriculum for students with varied learning needs.

They looked at many cleverly designed curriculum packages and kits. Most materials were collections of episodic learning activities. Some contained coherent learning activities for students, but did not teach to the critical concepts and principles embedded in state and national standards. Other materials, claiming to be comprehensive, did not contain aligned pre- and post-assessments, user-friendly teacher information, suggestions for teaching, or techniques for differentiating. Several kits attended to concepts and principles, but none was comprehensive enough to address all the standards for a particular grade level. At least two kits would be required to cover the prerequisite standards. Worse, the cost for the two kits would not include the price for the consumables that would have to be purchased each year to keep the kits adequately stocked. They could hardly pay for the cost of one kit!

Charlene and Andrew met at the back of the hall and compared notes. They were disappointed because they realized that the high-quality, standards-based curriculum materials they wanted were not in the racks. Now what? Were there other vendors? If so, who were they and how could they be contacted? If there were no vendors with the materials they needed, could they write the needed curriculum themselves? Who could help them? Did the district have money to pay stipends for curriculum development? How could they possibly write all the curricula that was required to address the state assessments?

We dedicate this curriculum unit, as well as others written under this Javits grant, to all the teachers who have had experiences like Charlene and Andrew. We hope the unit presented here will meet the needs of educators who live in real classrooms, contend with real time constraints, prepare students adequately for high-stakes assessments, seek high-quality curriculum materials, and strive to meet the varied learning needs of all their students.

Deborah E. Burns
Jeanne H. Purcell

PREFACE

In 2002, the Connecticut State Department of Education was awarded a Javits grant from the U.S. Department of Education called Project CONN-CEPT. The major focus of grant activities was the creation of standards-based curriculum units, K-8, in science and social studies. These rigorous curriculum units have been created for all students because every child must have access to the highest quality curriculum. At the same time, the units also have a particular focus on the needs of advanced learners—those who know more, learn more rapidly, think more deeply, or who are more innovative in a particular area of study. It was our goal to embed learning opportunities for advanced learners that were tightly aligned with the concepts and principles that guided the unit.

The Parallel Curriculum Model

This standards-based curriculum unit has been designed using the *Parallel Curriculum Model* (PCM) (Tomlinson, Kaplan, Renzulli, Purcell, Leppien, & Burns, 2002). The *Parallel Curriculum Model* is a set of four interrelated designs that can be used singly, or in combination, to create or revise existing curriculum units, lessons, or tasks. Each of the four parallels offers a unique approach for organizing content, teaching, and learning that is closely aligned to the special purpose of each parallel. The four parallels include: the Core Curriculum Parallel, the Curriculum of Practice, the Curriculum of Connections, and the Curriculum of Identity.

The *Core Curriculum* addresses the core concepts, principles, and skills of a discipline. It is designed to help students understand essential, discipline-based content through the use of representative topics, inductive teaching, and analytic learning activities. The *Curriculum of Connections* builds upon the Core Curriculum. It is a plan that includes a set of guidelines and procedures to help curriculum developers connect overarching concepts, principles, and skills within and across disciplines, time periods, cultures, places, and/or events. This parallel is designed to help students understand overarching concepts, such as change, conflict, cause and effect, and patterns, as they relate to new content and content areas. The *Curriculum of Practice* is a plan that includes a set of guidelines and procedures to help students understand, use, generalize, and transfer essential knowledge, understandings, and skills in a field to authentic questions, practices, and problems. This parallel is designed to help students function with increasing skill and competency as a researcher, creator, producer, problem solver, or practitioner in a field. The *Curriculum of Identity* is a plan that includes a set of guidelines and procedures to assist students in reflecting upon the relationship between the skills and ideas in a discipline and their own lives, personal growth, and development. This parallel is designed to help students explore and participate in a discipline or field as it relates to their own interests, goals, and strengths, both now and in the future.

The *Parallel Curriculum Model* also contains a new concept called Ascending Intellectual Demand (AID). Ascending Intellectual Demand offers practitioners a way to think about a discipline and each student's steady, progressive movement from novice to expert within that discipline. As students are ready, teachers ask students for increasing levels of cognition, affect, and application. As such, AID is a framework teachers use to increase the challenge level for students by asking them to behave and act in expert-like ways. (Tomlinson, Kaplan, Purcell, Leppien, Burns, & Strickland, 2006).

This unit has been designed using the Core Curriculum parallel. Core Curriculum addresses the essential concepts, principles, generalizations, and skills of a subject area. It is designed to help students understand essential, discipline-based content through the use of representative topics, inductive teaching, and analytic learning activities. Although the majority of lessons in this unit have been designed using the Core Curriculum parallel, it also contains several lessons that provide students with opportunities to explore other parallels that are closely connected to the subject matter.

Our Invitation...

We invite you to peruse and implement this curriculum unit. We believe the use of this unit will be enhanced to the extent that you:

- **Study PCM**. Read the original book, as well as other companion volumes, including *The Parallel Curriculum in the Classroom: Units for Application Across the Content Areas, K-12 and The Parallel Curriculum in the Classroom: Essays for Application Across the Content Areas, K-12*. By studying the model in depth, teachers and administrators will have a clear sense of its goals and purposes.
- **Join us on our continuing journey to refine these curriculum units.** We know better than to suggest that these units are scripts for total success in the classroom. They are, at best, our most thoughtful thinking to date. They are solid evidence that we need to persevere. In small collaborative and reflective teams of practitioners, we invite you to field test these units and make your own refinements.
- **Raise questions about curriculum materials.** Provocative, compelling and pioneering questions about the quality of curriculum material—and their incumbent learning opportunities—are absolutely essential. Persistent and thoughtful questioning will lead us to the development of strenuous learning opportunities that will contribute to our students' life-long success in the 21st century.
- **Compare the units with material developed using other curriculum models.** Through such comparisons, we are better able to make decisions about the use of the model and its related curriculum materials for addressing the unique needs of diverse learners.
- **Examine PCM as one bridge between general and gifted education.** We believe that the rigorousness of PCM has much to offer *all* students, not just those who may be already know, do, or understand at very different levels of sophistication.

ACKNOWLEDGEMENTS

We would like to thank our mentors, Carol Tomlinson and Carolyn Callahan. They have been our constant supporters and guides as we moved into uncharted territory related to curriculum development and differentiation.

Over the years we have been guided by the wise counsel of our curriculum writers: Cheryll Adams, Renee Alister, Karen Berk, Fie Budzinsky, Meagan Bulger, Yvette Cain, Lori Cipollini, Leslie Chislett, Megan Coffey, Edie Doherty, Claire Farley, Kurt Haste, Carla Hill, MaryAnn Iadarolla, Caitlin Johnson, Megan Lamontagne, Donna Leake, Lisa Malina, Kay Rasmussen, Martha Rouleau, Cindy Strickland, Mary Grace Stewart, Kim Turret, Ann Marie Wintenberg, and Karen Zaleski. They have worked tirelessly on their curriculum units and provided us with many insights into the curriculum writing process. Although we had a road map at the outset of the writing process, our writers helped us to craft new roads when the old ones no longer worked. We thank them for their integrity, care, innovativeness, and encouragement.

We thank all of the people who featured into the field testing process. These people include teachers in Cheshire, Hartford and Portland Public Schools. We especially want to thank the following building administrators who supported our work: Tory Niles and John Laverty from Hartford; Linda Cahill and Deborah Granier from Portland; and Steve Proffitt, Diane DiPietro, Sharon Weirsman, Russ Hinkley, Beverly Scully, and Mary Karas from Cheshire. The insights from teachers and administrators helped to make our curriculum units stronger and more practical.

Kim Allen, from Project LEARN, provided us with assistance and support in all of our endeavors and made sure that we stayed the course in solid financial standing. Nancy Wight and Gail Heigel, from Cheshire Public Schools, spent untold hours formatting, typing, duplicating, collating, and distributing the experimental units and ordering the numerous student materials and teacher resources that supplement these lessons. They are the masters of due diligence and attention to detail. We also wish to thank Eileen Williams and Patricia Johnson, from the State Department of Education, for formatting, typing, and preparing the pre-assessments and post assessments for the units. They worked tirelessly for many hours after work and on weekends to meet our deadlines and never lost their smiles.

We thank Cheshire Public Schools and the Connecticut State Department of Education for allowing us to take on this tremendous task and allowing us the hours within day (and night) to accomplish all that was required.

Our families and friends deserve special recognition because they offered unwavering support and encouragement. We recognize they made personal sacrifices, and we hope that we have grown as a result.

Most of all, we would like to thank Judy Walsh on whose shoulders these units truly stand. With the greatest of care and unparalleled thoughtfulness and consideration, Judy has edited each manuscript, worked collaboratively with each author to refine each lesson, written lessons when it was necessary, and provided a sense of humor and her wisdom as a teacher. She is selfless and seeks only to advance each author and the project. In every way, she has been our "North Star" on the project.

Format for the Project CONN-CEPT Curriculum Units

Each Project CONN-CEPT curriculum unit is formatted in the same way and contains four components: an overview, the lessons, a content map, and a comprehensive list of resources required in the unit. The *overview* is a chart that includes the lesson principles, concepts and skills, the time allocation, the standards that are explicitly addressed within each lesson, and a brief description of each lesson. The overview provides potential users with a "snap-shot" of the unit, related standards, and classroom activities.

The *lessons* follow the overview and vary in number depending upon the content area and grade level of the unit. Each lesson is comprehensive and addresses 10 curriculum components: content, assessments, introductory and debriefing activities, teaching strategies, learning activities, grouping strategies, products, resources, extensions, and differentiation activities. For the most part, each lesson provides specific information about each of these components. An aligned pre- and post-assessment is included for the entire unit, and aligned formative assessments are provided at critical junctures in the unit. Additionally, each lesson contains all the required black-line masters and materials.

Many lessons contain two features that are unique to Project CONN-CEPT materials: opportunities for Ascending Intellectual Demands (AID) and talent-spotting activities. Ascending Intellectual Demand is a term used to describe learning opportunities that require students to work at increasing levels of discipline-specific expertise (Tomlinson et al). They are appropriate for any student who demonstrates advanced ability or expertise in a discipline. The AID opportunities are labeled using the acronym AID. Additionally, many lessons contain searchlight opportunities. Searchlight opportunities are rich moments during a lesson for teachers to observe students and note those who appear to have heightened interest in the topic under investigation. To support these students' emerging interests, extension ideas are provided.

A *content map* comes after the lessons. Like the overview, the content chart is a snap-shot of the important knowledge in a unit: the major and minor principles, concepts, skills, themes and guiding questions. Teachers who want in-depth information about the knowledge contained in the unit will find this chart useful.

A comprehensive list of *resource materials* concludes each unit. Although the required materials are also listed at the beginning of each lesson, the comprehensive listing provides teachers with a one-page summary of all the materials and it facilitates planning.

CONCEPTS AND TOOLS OF THE GEOGRAPHER

Introduction to Concepts and Tools of the Geographer– Grade 6

This unit on tools and concepts of the geographer has been designed using the Core Curriculum parallel. Core Curriculum addresses the core concepts, principles, generalizations, and skills of a subject area. It is designed to help students understand essential, discipline-based content through the use of representative topics, inductive teaching, and analytic learning activities. Although the majority of lessons in this unit have been designed using the Core Curriculum parallel, it also contains lessons that give students the chance to explore the Parallel of Connections through intradisciplinary and interdisciplinary connections as well as the Parallel of Identity which gives students a chance to reflect on themselves as social beings.

The unit contains 34 lessons that are organized into eight modules, a pre-assessment, and a post assessment. These are outlined in the chart that follows. The first column contains the module with its lessons and the name of the parallels that the lessons address. The second column contains a series of numbers. The numbers reflect the national standards—culled from *Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education* (Mid-continent Regional Educational Laboratory, Inc., 1997)—that are addressed in each lesson and that are listed and numbered below. Connecticut's standards are also listed in a similar fashion. For brevity's sake, only a few standards are listed in each row of the chart and represent the major focus of individual sessions. However, the lessons have been designed to build upon each other, and each session builds iteratively upon many of the standards.

Column three contains the principles that guide the lesson. The principles—which state relationships among essential concepts—reflect what we want students to know and be able to do upon completing the lessons. They are derived from the standards, reflect both declarative and procedural knowledge, and illustrate the careful attention that has been given to "teasing apart" the complexity of ideas contained within standard statements.

Column four includes a brief description of the module and its lessons. It provides an overview of some of the teaching and learning activities that are designed to occur within the classroom.

National Geography Standards

Understands the characteristics and uses of maps, globes, and other geographic tools and technologies

1. Knows the purposes and distinguishing characteristics of different map projections, including distortion on flat-map projections
2. Understands concepts such as axis, major parallels, seasons, rotation, revolution and principal lines of latitude and longitude (earth-sun relations)

Knows the location of places, geographic features, and patterns of the environment

3. Knows the location of physical and human features on maps and globes (e.g., culture hearths such as Mesopotamia, Huang Ho, the Yucatan Peninsula, the Nile Valley; major ocean currents; wind patterns; land forms; climate regions)
4. Knows the relative location of, size of, and distance between places (e.g., major urban centers in the United States)

Understands the characteristics and uses of spatial organization of earth's surface

5. Understands distributions of physical and human occurrences with respect to spatial patterns, arrangements, and associations (why some areas are more densely settled than others, relationships and patterns in the kind and number of links between settlements)

Understands the physical and human characteristics of place

6. Knows the human characteristics of places (e.g., cultural characteristics such as religion, language, politics, technology, family structure, gender; population characteristics; land uses; levels of development)
7. Knows the physical characteristics of places (e.g. soils, landforms, vegetation, wildlife, climate, natural hazards)

Understands the concept of regions

8. Knows regions at various spatial scales (e.g., hemisphere, regions within continents, countries, cities)
9. Understands criteria that give a region identity (e.g., its central focus, such as Amsterdam as a transportation center; relationships between physical and cultural characteristics, such as the Sunbelt's warm climate and popularity with retired people)

Knows the physical processes that shape patterns on earth's surface

10. Knows the major processes that shape patterns in the physical environment (e.g., the erosional agents such as water and ice, earthquake zones and volcanic activity, the ocean circulation system)
11. Knows the processes that produce renewable and nonrenewable resources (e.g., fossil fuels, hydroelectric power, soil fertility)

12. Knows the consequences of a specific physical process operating on earth's surface (e.g., effects of an extreme weather phenomenon such as a hurricane's impact on a coastal ecosystem, effects of heavy rainfall on hillslopes, effects of the continued movement of earth's tectonic plates)

Understands how human actions modify the physical environment

13. Understands the environmental consequences of people changing the physical environment (e.g., the effects of ozone depletion, climate change, deforestation, land degradation, soil salinization and acidification, ocean pollution, groundwater-quality decline, using natural wetlands for recreational and housing development)

Understands how physical systems affect human systems

14. Knows the ways people take aspects of the environment into account when deciding on locations for human activities (e.g., early American industrial development along streams and rivers at the fall line to take advantage of water-generated power)

Understands global development and environmental issues

15. Understands how the interactions between physical and human systems affects current conditions on earth (e.g. relationships involved in economic, political, social, and environmental changes; geographic impact of using petroleum, coal, nuclear power, and solar power as major energy sources)
16. Understands why different points of view exist regarding contemporary geographic issues (e.g., a forester and a conservationist debating the use of a national forest, a man and a woman discussing gender-based divisions of labor in a developing nation)

National Civics Standards

Understands ideas about civic life, politics, and government

17. Understands major ideas about why government is necessary (e.g., people's lives, liberty, and property would be insecure without government; individuals by themselves cannot do many of the things they can do collectively such as create a highway system, provide armed forces for the security of the nation, or make and enforce laws)

Connecticut Related Content Standards
Grades 5-8

Content Standard 7: Political Systems
Students will explain that political systems emanate from the need of humans for order, leading to compromise and the establishment of authority.

Educational experiences in Grades 5-8 will assure that students:

1. Explain the meaning of civic life, politics and government.

2. Compare and evaluate forms of government found outside the United States.

Content Standard 9: Places and Regions
Students will use spatial perspective to identify and analyze the significance of physical and cultural characteristics of places and world regions.

Educational experiences in Grades 5-8 will assure that students:

1. Describe human and natural characteristics of places and how they shape or place identity.

2. Describe the process and impact of regional change.

3. Identify and evaluate various perspectives associated with places and regions.

4. Explain and assess how culture affects perception of places and regions.

5. Use latitude and longitude to locate places and calculate differences between places.

6. Locate natural and cultural features in their own and nearby communities, in the United States and in other regions of the world, as needed, to answer geographic questions.

7. Demonstrate how personal knowledge and experiences influence an individual's perception of places.

Content Standard 10: Physical Systems
Students will use spatial perspective to explain the physical processes that shape the earth's surface and its ecosystem.

Educational experiences in Grades 5-8 will assure that students:

1. Understand how concepts of physical geography can be applied to explain natural processes.

2. Understand and apply how natural processes influence the formation and location of resources.

3. Use basic climatic and other physical data to understand how natural processes shape environmental patterns.

Content Standard 12: Human and Environment Interaction
Students will use geographic tools and technology to explain the interactions of humans and the larger environment, and the evolving consequences of those interactions.

Educational experiences in Grades 5-8 will assure that students:

1. Explain the essential features and functions of maps, globes, photographs, geographic models and satellite images.

2. Make maps, globes, models, charts and geographic databases.

3. Compare and contrast differences among maps, globes, photographs, models and satellite images for solving geographic problems.

4. Describe human and natural characteristics of places and how they shape or place identity.

5. Draw a freehand map from memory of increasing and appropriate complexity to display geographic information and answer geographic questions.

6. Demonstrate and explain ways that humans depend on, adapt to and alter the physical environment.

Module & Lessons	Standards	Lesson Principles	Lesson Description
Pre-assessment (CORE) 45 minutes			This lesson includes a pre-assessment that samples the content of this unit: the different aspects of geography, different types of maps and the information they provide, the earth's topography and its changes, climate and physical terrain and their effects upon people, culture, and renewable and non-renewable resources.
Module 1 Lessons 1-9 (CORE, CONNECTIONS) 9- 45 minute periods	3, 4, 7, 8, 9, 16 CT Standards: 9, 12	• Geography is the study of the earth's surface, climate, continents, countries, peoples, industries, and projects. • The earth's surface is composed of physical features (location, place, regions). • The earth's surface is composed of humans who affect the environment.	The first lesson focuses on the five themes of geography: location, place, human-environment interaction, movement, and regions. In the next lesson students assume the role of detectives while responding to clues that reveal relative and absolute location, longitude and latitude, cardinal directions, and hemispheres. In lesson 3 students use the concepts from lesson 2 in creating three maps: one of their room, one of their route to school, and one of their town. Students create a page(s) of an ABC geography riddle book in Lesson 4. Each riddle features a person's name, an exact longitude and latitude, and a product from that location. In addition, students take a quiz on the location concepts. In lesson 5 students discuss the school, its surrounding land area and the characteristics of the people who live there. They also create a physical map of an imaginary island with all of its physical features, longitude and latitude lines, a key, and a compass rose. Students examine human interactions with the environment in Lesson 6 when they debate the idea of turning a park into an airport/skate park/movie theater. The lesson ends with a journal writing about how geographers use the theme of human interactions. In lesson 7 students work in groups to create lists of products and their place of origin from around the world. A class discussion compiles the lists and ties them to the idea of movement of people, goods, services, and ideas. Students learn the concept of regions in Lesson 8 when small groups decide how to assemble items for an imaginary grocery store. A whole class discussion discusses the rationale behind arrangements and segues into a discussion of regions and their characteristics. Students divide into small groups to create a chart on the five themes of geography as a post assessment in Lesson 9. Groups share charts with the class and a debriefing emphases the ideas and concepts incorporated into the five themes.

CONCEPTS AND TOOLS OF THE GEOGRAPHER

Module & Lessons	Standards	Lesson Principles	Lesson Description
Module 2 Lessons 1- 6 (CORE/ IDENTITY/ AID) 5 – 45 minute periods 1 – 35 minute period	1, 2 CT Standards: 12	• The earth's surface is connected. It can be studied by breaking it into individual parts and studying maps. • Maps can provide both accurate and inaccurate information. • Geographers use many different types of maps.	In Lesson 10 student partners inflate balloons to represent globes and then try to change the balloon globes into maps. They realize that when they try to flatten the round globe, they create a projection and distortion occurs. A class discussion looks at the differences in terms of both positive and negative qualities of flat and round maps. Students in Lesson 11 learn about scale by first drawing 1" grids on a large picture and then transferring the picture to graph paper with much smaller grids. Thus, they create a miniature picture of the same shape. Partners discuss how the picture transfer pertains to maps and why it is important that something is drawn to scale. In Lesson 12 students use their skills in finding longitude and latitude by playing the game *Battleship* using teacher chosen geographical words. Students use their geography skills by creating a map for an imaginary island nation in Lessons 13 and 14. In addition students make a precipitation map and a temperature map for the island that should reflect the climate of those of countries located near it. In Lesson 15 students look at their strengths and traits and compare them to those of a cartographer. Then they read a current article about a cartographer's project and write their reaction to working on such a project.
Module 3 Lessons 1 - 2 (CORE/ CONNECTIONS) 2 – 45 minute periods	1 CT Standards: 10	• The earth's climate depends upon its movement in space. • The natural and cultural features of the earth are affected by its rotation and revolution.	In Lesson 15 pairs of students use balloons to first demonstrate how the earth rotates on its axis and then how the spinning earth orbits the sun. Next, a whole class demonstration shows the connection between the earth's tilt and orbit around the sun and seasonal changes. Pairs of students in Lesson 16 reinforce the above concepts using a flashlight to represent the sun and a Styrofoam ball to represent earth. Students see that as the earth makes its rotation around the sun, the sun's rays shine on earth's surface in varying degrees and at different angles, causing the seasons to change. They can also observe that the sun's rays are more intense and direct near earth's equator and less direct at its polar caps. After the demonstration, students complete a worksheet which reinforces these concepts.

Module & Lessons	Standards	Lesson Principles	Lesson Description
Module 4 Lessons 1 - 2 (CORE/ CONNECTIONS [AID]) 2- 60 minute periods	12 CT Standards: 10	• Geographers study plate tectonics. • The earth was once one huge landmass called Pangaea.	In Lesson 18 students realize that the earth is an ever-changing planet when they cut out the continents from a world map and paste them at the position in which they were located 250 million years. Then they make a prediction of what the world will look like in 100 million years and paste the continents onto another sheet of blue paper. A whole class discussion shares ideas and reasons. Students explore the concepts of erosion and weathering in Lesson 19 when they shake rocks in a container and find that the large rocks rubbed against each other and made smaller pieces of rock. Next students see the effects of wind and water when they simulate both on a pan of sand.
Module 5 Lessons 1 - 3 (CORE/ AID) 3- 45 minute periods	5, 7, 10, 12 CT Standards: 10	• Population affects our geography • Climate and landforms affect where people live. • Some places have higher populations. • Places in the world have different climates and landforms. • Climate is the prevailing weather conditions of a region averaged over years. • Landforms are any of the number of natural features on the earth's surface, including mountains, plains, plateaus, hills, cliffs, etc.	In Lesson 20 small groups analyze census data for an assigned city and then create a graph with the data. Students look for fluctuations in population as well as landforms that might influence people to live in that city. Lesson 21 asks students to make generalizations regarding the ways in which climate and terrain affect where people live. As an example students look at the different places that grow rice. Students examine the ways that climate and landforms affect people's living conditions by pretending they are stranded in an imaginary area where they must adapt to the environment and create a functioning community in Lesson 22. The module concludes with a debriefing when students picture their lives ten years in the future. They reflect upon the information they have learned regarding the effects of climate and landforms on people's living conditions in choosing a place they would like to live.
Module 6 Lessons 1 - 3 (CORE) 3 – 45 minute periods	5, 6, 14, 17 CT Standards: 7, 12	• Given the right to choose people choose to live in places that are similar to their economic and political status. • Over time cultures change for many different reasons (e.g. population growth, human interaction wit the terrain). • Cultures affect their environment, and environment affects the cultures. • Traditions, stories, religion, and language are important to cultures. • Societies have political and economic structures.	In Lesson 23 groups of students examine different pictures of homes and then categorize them by the natural resources used for construction, the climate they reflect, and the economic status they represent. Small groups explore different political systems in Lesson 24. Then new groups form with a representative from each different political system. Students in this group share ideas they have researched. In Lesson 25 small groups revisit an imaginary area again, but this time the focus is on leadership and government.

CONCEPTS AND TOOLS OF THE GEOGRAPHER

Module & Lessons	Standards	Lesson Principles	Lesson Description
Module 7 Lessons 1 - 2 (CORE) 2 – 45 minute periods	11, 13, 15 CT Standards: 12	• The earth has renewable and non-renewable resources. • Raw materials are the natural resources used to make products. • Manufacturing means making new products from raw materials and recyclable materials. • Fossil fuels include coal, oil and natural gas, formed from the remains of living things. • Renewable resources are natural products that the environment continues to replace. Examples are water and plants. • Non-renewable resources are resources that cannot be replaced once they have been used. Examples are fossil fuels.	Student pairs play a version of Twenty Questions in Lesson 26. In this game the object is to determine what different objects are made from and whether the animal, mineral, or vegetable is a renewable or non-renewable resource. In Lesson 27 a whole class session generates a list of places where we use energy as well as the different types of energy. A class discussion leads students to make connections between these resources and pollution, animal endangerment, deforestation, and other ways that human consumption of energy affects geography. Students explore a renewable source of energy by making pinwheels.
Module 8 Lessons 1 - 5 (CORE/ CONNECTIONS) 5 – 45 minute periods	2, 3, 4, 5, 6, 7 8, 9, 13, 14, 15, 17 CT Standards: 7, 9, 10,12	• Climate and landform affect where people live. • Climate is the prevailing weather conditions of a region averaged over years. • Given the right to choose, people choose to live in places that are similar to their economic and political status. • Cultures affect their environment, and environment affects the cultures. • Traditions, stories, religion, and language are important to cultures. • Societies have political and economic structures. • Raw materials are the natural resources used to make products. • Manufacturing means making new products from raw materials and recyclable materials.	Students spend the next five lessons working on their final project, Create a Country. They will use the skills and knowledge they have gained from this unit and apply them by creating a booklet that features an imaginary country. The booklet will include a map of the country, a flag, a description of the currency, a population density map and graph, a culture page, a history of the country which includes the type of government and a timeline, a chart of natural resources, and a natural resource map.
Post Assessment (CORE) 45 minutes		All principles in unit	Post Assessment

References

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CONTENTS

Preface Page III

Acknowledgements Page V

Format Page VI

Pre-assessment Page XIX

Time Allocation: 45 minutes

Module 1: The Five Themes of Geography Page 01

Time Allocation: 6 hours, 45 minutes

Module 2: Maps and Their Uses Page 29

Time Allocation: 1 hour

Module 3: Climate and Seasons Page 45

Time Allocation: 1 hour, 30 minutes

Module 4: Earth Changing Shape and Crust Page 53

Time Allocation: 2 hours

Module 5: Geography and Populations Page 61

Time Allocation: 2 hours, 15 minutes

Module 6: Geography and Politics and the Economy Page 73

Time Allocation: 2 hours, 15 minutes

Module 7: Geography and Renewable and Non-Renewable Resources Page 81

Time Allocation: 1 hour, 30 minutes

Module 8: Create a Country Page 89

Time Allocation: 3 hours, 45 minutes

CONTENTS

Post Assessment Page 101

Time Allocation: 45 minutes

Curriculum Map Page 109

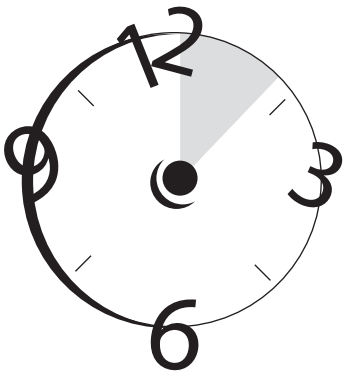
Materials and Resources List Page 117

“Pre-assessment”

Pre-assessment

Core

Time Allocation: 45 Minutes
Required Materials and Resources on Page 117



Lesson Overview

Students take the unit pre-assessment for the entire class time today.

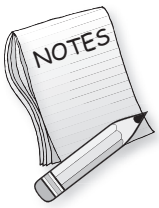
Guiding Questions

- What do I know about the different aspects of geography?
- What do I know about different types of maps and the information they give us?
- What do I know about the earth's topography and how and why it has changed?
- What do I know about how climate and physical terrain affect people?
- What do I know about culture?
- What do I know about renewable and non-renewable resources?

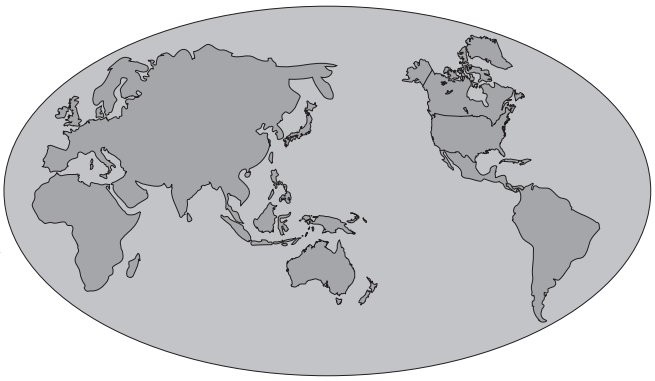
BIG IDEA

What Do I Know about Geography and All of its Effects?

CONCEPTS AND TOOLS OF THE GEOGRAPHER



Universal Themes



- Place
- Location
- Climate
- Change
- Needs
- Effects of human impact
- Adaptation

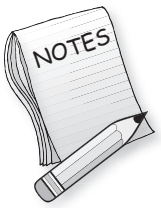
Principles and Generalizations

- Geography is the study of the earth's surface, climate, continents, countries, peoples, industries, and projects.
- The earth's surface is composed of physical features (location, place, regions).
- The earth's surface is composed of humans who affect the environment.
- Maps can provide both accurate and inaccurate information.
- The earth's climate depends upon its movement in space.
- The natural and cultural features of the earth are affected by its rotation and revolution.
- Geographers study plate tectonics.
- Climate and landforms affect where people live.
- Climate is the prevailing weather conditions of a region averaged over years.
- Landforms are any of the number of natural features on the earth's surface, including mountains, plains, plateaus, hills, cliffs, etc.
- Given the right to choose, people choose to live in places that are similar to their economic and political status.
- Over time cultures change for many different reasons (e.g. population growth, human interaction with the terrain).
- Societies have political and economic structures.
- The earth has renewable and non-renewable resources.
- Renewable resources are natural products that the environment continues to replace. Examples are water and plants.
- Non-renewable resources are resources that cannot be replaced once they have been used. Examples are fossil fuels.

Pre-assessment

Concepts

- Geography
- Location
- Place
- Human-environment interaction
- Maps
- Longitude
- Latitude
- Parallels
- Degrees
- Equator
- Meridians
- Scale
- Distortion
- Topography
- Orbit
- Axis
- Rate
- Revolve
- Seasons
- Tilt
- Climate
- Plates
- Erosion
- Weathering
- Crust
- Population
- Population density
- Demography
- Immigration
- Migration
- Culture
- Government
- Economy
- Renewable resources



- Non-renewable resources
- Natural resources
- Global warming
- Endangerment
- Pollution

Teacher Information
N/A

Skills
- Identify characteristics
- Describe characteristics
- Analyze
- See relationships
- Draw conclusions

Materials and Resources
Concepts and Tools of the Geographer Unit Pre-assessment

Preparation Activities
Copy **Concepts and Tools of the Geographer Unit Pre-assessment** for each student.

Introductory Activities
Explain to students that the pre-assessment will be used as a tool by you to measure their previous knowledge. Emphasize that they should make their best effort on the assessment but should not worry if they do not know some of the questions.

Pre-assessment
Concepts and Tools of the Geographer Unit Pre-assessment

Teaching and Learning Activities (45 minutes)
Distribute the **Concepts and Tools of the Geographer Unit Pre-assessment.**

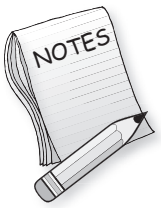
Products and Assignments
Students' assessment results

Extension Activities
N/A

Post Assessment
N/A

Debriefing and Reflection Opportunities
N/A
Concepts and Tools of the Geographer Pre-assessment

CONCEPTS AND TOOLS OF THE GEOGRAPHER

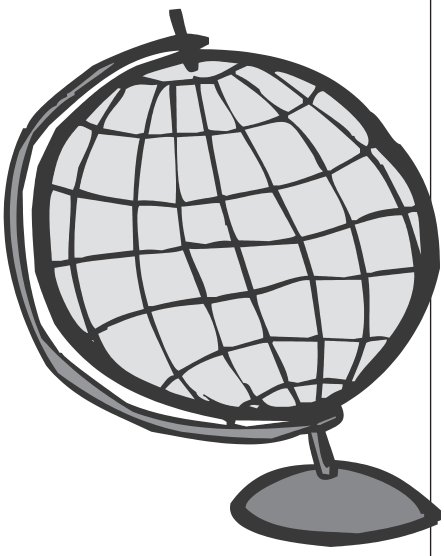


Name_____ Date_____

1. What is geography?

2. What comprises the earth's surface?

3. What kind of information do maps give us?



4. How would you find the absolute location of a particular place on a map?

5. How does the earth's movement affect our climate?

6. Why does the earth experience seasonal changes?

7. How are day and night determined?

8. What are plate tectonics?

9. How has the earth's shape changed?

10. How do weathering and erosion affect our planet?

11. Why do some areas in the world have larger populations?

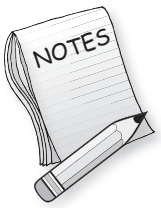
12. How does climate and physical terrain affect where people live?

13. Give two examples of landforms.
    a.

    b.

14. Why does culture change?

15. What is a government, and why do people need one?



16. Name two renewable resources.
    a.

    b.

17. Name two non-renewable resources.
    a.

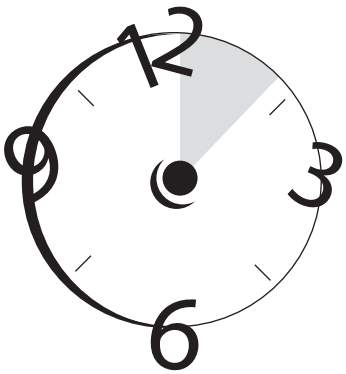
    b.

18. Why are all of us responsible for maintaining our earth's resources for future generations?

The Five Themes of Geography

Core/Connections

Time Allocation: 6 hours, 45 minutes
(9-45 minute class periods)
Required Materials and Resources on Page 117



Lesson Overview

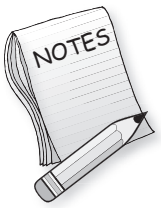
During these sessions, students will investigate the five themes of geography: location, place, human-environment interaction, movement, and regions. This investigation will help them understand and define the word *geography* and make other major generalizations throughout this study.

Guiding Questions

- What is geography?
- What are the five themes of geography?
- What comprises the earth's surface?
- What is a natural feature?
- Why is the study of people important to geography?
- Why do people immigrate to other places in the world?
- What is culture? How do cultural ideas spread?
- How are cultures affected by their landscapes?

BIG IDEA

Location, Place, Human–Environment Interaction, Movement, Regions



Content Goals

Universal Themes

- Place
- Location
- Region
- Interaction
- Movement

Principles and Generalizations

- Geography is the study of the earth's surface, climate, continents, countries, peoples, industries, and projects.
- The earth's surface is composed of physical features (location, place, regions).
- The earth's surface is composed of humans who affect the environment.

Concepts

- Geography
- Physical science
- Social science
- Geology
- Anthropology
- Social structure
- Location
- Place
- Human-environment interaction
- Movement
- Regions
- Industry
- Culture
- Pollution
- Resources
- Rainforest
- Projects
- Longitude/latitude
- Parallels

The 5 Themes of Geography

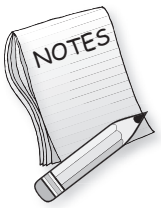
- Meridians
- Degrees
- Compass
- Maps
- Equator
- Religion
- Language
- Ethics
- Technology
- Agriculture
- Endangerment
- Global warming
- Ozone

Teacher Information

- Location is described as absolute or relative. Absolute location describes the exact place, and relative location pinpoints a place by referring to places near it.
- Places can be described in terms of physical or human characteristics.
- Human-environment interaction emphasizes how individuals alter their surroundings and how these surroundings change the individuals themselves.
- Movement refers to the movement of people, goods, services, and ideas.
- Regions are used to make comparisons between places. They can be based upon political divisions, physical features, cultural characteristics, or many other types of characteristics.
- Culture is the way of life of a group of people who share similar beliefs and customs.
- A natural resource is any useful material found in the environment.

Skills

- Identify
- Compare/contrast
- Observe
- Analyze
- Reason deductively



- Solve problems
- Locate details

Materials and Resources

1. Index cards
2. Chart paper
3. Large white paper or chart paper
4. Journals
5. Maps/atlases
6. **Where in the World** worksheet
7. **Creating 3 Maps** directions and rubric
8. Quiz & answer key
9. **ABC Book** directions
10. **Hands Down** directions sheet
11. Glue
12. Scissors
13. Markers
14. Store flyers

Preparation Activities

Introductory Activity

1. Fold five large index cards in half so that they stand.
2. Write a different letter for one of the five themes on each card. Use the letters L, P, H, M, and R. (Teacher note: The five themes are listed on page 2 under Teacher Information.)
3. Have chart paper or large paper available.

Lesson #1

1. Generate sentences clues about each location or copy the **Where in the World** Worksheet.
2. Copy worksheet for each group.

Lesson #2

1. Copy the **Creating 3 Maps** directions and rubric (one for each student).
2. Write on the board the definitions of absolute location and relative location.

Lesson #3

1. Copy quiz.
2. Copy directions to **ABC Book**.

Lesson #4

1. Provide one large piece of white construction paper for each student
2. Assemble colored pencils, crayons, or markers.
3. Copy **Hands Down** directions sheet.

Lesson #5 & #6

N/A

Lesson #7

1. Distribute grocery store flyers, one for each group.
2. Assemble markers, scissors, glue, and large white paper.

Introductory Activity (45 minutes)

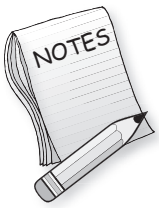
Instruct students to sit near one of the letter cards. Ask students to brainstorm words that start with their given letter regarding geography, i.e., "M" is for mountain. Groups should then list their ideas on the paper provided. Teacher should circulate, assisting groups when needed and redirecting others when necessary. After about ten minutes of working time when groups should have at least 10 to 15 words, ask one student from each group to share the group's list. Teacher should record the lists on large paper, grouping words with same initial consonant together. Ask students if they notice any relationships between the listed words. Probe students for ideas about why these particular letters were chosen. Familiarize students with the names of the five themes of geography and solicit definitions. Have students write in their journals why they think the study of geography is important.

Pre-assessment

Save and post lists of words and generated definitions on the five themes.

Products and Assignments

- Class chart of the geography terms by letter and definitions of the 5 themes of geography
- Individual journal entries



Teaching and Learning Activities (45 minutes)

Lesson #1:

1. Tell students to pretend that they are private investigators in search of a criminal who is traveling throughout the world leaving clues of his or her whereabouts. Their job is to find out which locations this criminal has visited.

2. Distribute the "Where in the World" index cards and instruct them to locate where in the world this criminal has been. Students should record how they decided upon this location.

3. After about 20 minutes of work time, reconvene as a whole class and discuss their findings.

4. Steer discussion towards the theme of location. Introduce ideas of relative and absolute location, longitude and latitude, cardinal directions, and hemispheres.

5. Revisit definitions created during introductory activity and have students modify them.

6. Have students write in their journals or notebooks about one of the following questions or any other related questions: How do we describe where we live? How do geographers use location? How do landmarks affect the way in which we describe our location?

Products and Assignments

- Revised class chart theme chart with modified definitions
- Individual journal entries

Extension Activities

Students can create their own clue cards describing various places around the world.

Post Assessment

See post assessment at end of module.

Teaching and Learning Activities (45 minutes)

Lesson #2:

1. Revisit definitions of absolute and relative location. Solicit examples of both from students.

2. Ask students to close their eyes and visualize their houses. Ask students if their house has a relative or an absolute location or if it can be described as having both.

3. Ask students to close their eyes again and visualize the route they travel from home to school. Revisit ideas of relative and absolute location.

4. Ask student to close their eyes and visualize the town in which they live. Discuss the landmarks pictured and how to describe their locations.

5. Distribute the **Creating 3 Maps** project guidelines.

6. Discuss and answer any questions.

7. Students should be given some class time to work, although the project will be completed at home.

Products and Assignments

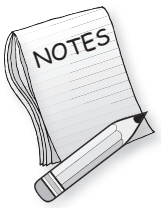
- **Creating 3 Maps** project
- Map Quest activity

Post Assessment

See Post Assessment at end of module.

Extension Activities

Invite interested students to use their computer skills to find some specific museums and an amusement park. Have them use their internet explorer to go to www.mapquest.com ; they should then find the circle labeled "Driving Directions," and click on it and follow the directions for that activity.



Teaching and Learning Activities (45 minutes)

Lesson #3:

1. Distribute quiz.

2. Distribute **ABC Book** directions and discuss. Each student can create his or her own book, or each student can create one page of a class book.

3. Give students time to work.

Products and Assignments

- Quiz
- **ABC Book**

Post Assessment

See post assessment at end of module.

Extension Activities

N/A

Teaching and Learning Activities (45 minutes)

Lesson #4:

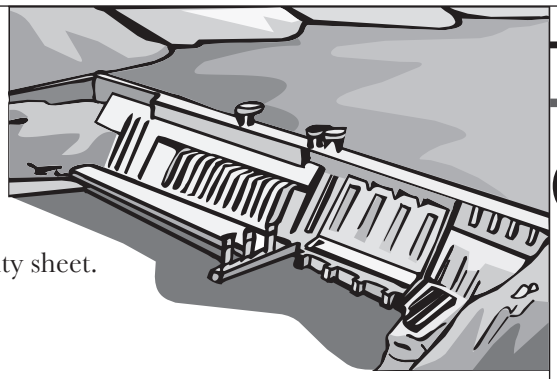
1. Divide students into small groups and have them describe their school and its surrounding land areas.

2. After a few minutes, share ideas with class and record.

3. Ask students who lives in this area? What do they do for a living? What ethnic groups are represented? What is the educational level of the people? What are the major religions in the area? What are the major types of recreation? What is the average age level of the people?

4. Introduce second theme of place and revisit definition from introductory activity. Change as needed.

5. Have students generate a list of the features that every map has. Be sure to discuss map keys and universal symbols such as mountain symbols, etc.



6. Distribute **Hands Down** activity sheet.

Products and Assignments

- **Hands Down** activity sheet
- Descriptive paper on home and/or place to visit

Extension Activities

1. Write a paper describing your home, being sure to include the physical features found there and the characteristics of the people who live there.
2. Write a one paragraph description of a place you would most like to visit. Include both the physical and human characteristics. Be certain not to mention the name of the place. Read your paragraph to the class and let your classmates try to guess your favorite spot.

Post Assessment

See post assessment at end of module.

Teaching and Learning Activities (45 minutes)

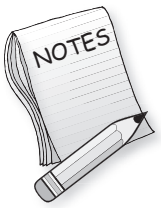
Lesson #5:

1. Divide students into small groups and have them think about how their home area (town) has changed over the past few years.

2. Discuss current changes occurring in their town and how the products needed for the construction arrived at that site. Steer the conversation so that students seem to realize that in order for construction to be established, clearing of land and cutting down trees must occur. These are all examples of human-environment interaction. In current time, roads, bridges, dams, and shopping areas are all examples of human interaction. When humans make these changes, the environment is affected, and consequences occur.

3. Discuss the implications of these changes and their positive or negative effect on their surroundings.

4. Divide the class in half. Both groups will be asked to picture and describe a park they are familiar with. Ask them to describe the plants, grasses, bushes, and animal life found there.



5. One half of the class is the developers. They wish to use the land to build an airport/skate park/movie theater. This group needs to petition the town for approval and is supposed to think about how they would construct the building and what would happen to the land. They also need to present how this project would be a good thing to the surrounding neighborhood.

6. The other half of the class is the environmentalists. They want the park to remain as is. They need to discuss the environmental problems this particular construction will create.

7. Encourage students to think about recycling, litter, deforestation, natural resources, and different types of pollution.

8. Have students debate their ideas.

9. Have students answer the following questions by writing in their journals: How do geographers use the theme of human-interactions? Why is this theme important? How did this activity make you think like a geographer?

Products and Assignments

Individual journal entries

Extension Activities

1. Read aloud the book *The Lorax* (by Dr. Seuss), a wonderful example of human-environment interaction. Talk about the different characters in the book. How do students feel about each of them? Who does each character symbolize? How is each character affected by the Once-ler? Who is the Somebody?
2. Research changes that have occurred in your town in the last 50 years. Compile a list using the Internet, magazines, old newspapers, and even town records.

Post Assessment

See post assessment at end of module.

Teaching and Learning Activities (45 minutes)

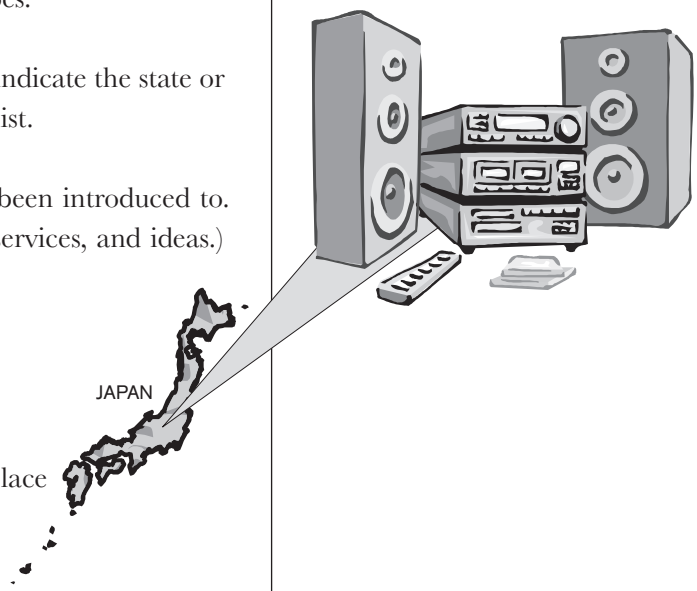
Lesson #6:

1. Ask students how many of them like pizza? How many prefer Chinese food? How many of them know where their family is originally from? (Great opportunities for math connections!)

2. Share with them that we are in touch with products from around the world every day without realizing it. Have students work in groups and check items they have at their desks or in their pockets to see where they were made. Remind them to check labels in clothing and shoes.

3. Have them make a list of at least 10 products and also indicate the state or country in which they were produced. Compile a class list.

4. Ask students to identify the theme that they have just been introduced to. (Movement refers to the movement of people, goods, services, and ideas.) Revisit definitions from introductory chart.



Products and Assignments

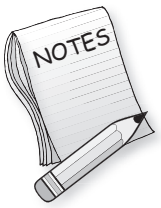
- Student lists of products and their place of origin
- Class list of products and their origin
- Class map showing students' movement from place to place
- List of 20 items from many different countries

Extension Activities

1. Use a map, pushpins or thumbtacks, and yarn, to show where children came from and where they moved. You can also include information about how many moved, when they moved, how many returned home, and what traditions and cultural aspects they brought with them.
2. Look at items found in your classroom or at home. Find 20 items from as many different countries as possible. Make a list of the item's name and place of origin.

Post Assessment

See Post Assessment at end of module.



Teaching and Learning Activities (45 minutes)

Lesson #7:

1. Invite the class to imagine that they are creating a new grocery store. Distribute store flyers to each group. Explain that it is their job to cut out items and decide which items should be grouped together on a "shelf."

2. Students should glue their items into different sections of their store. They should be discussing which items should be grouped together and the rationale behind the groupings.

3. Once all items have been grouped, students should name each section of their store. The name should reflect the type of items found in each section.

4. Reconvene as a class and have groups present the arrangements of their stores, while also sharing the rationale behind their sections. Be sure to discuss how different groups placed items in different categories since an object can belong to more than one region based upon its different characteristics.

5. Ask students where they have heard the word *regions* before? Solicit from students the idea of creating a region. Ask them if they have ever created one.

6. Share with the class that regions share a similar past, related resources, and/or certain geographic features. Regions can change over time due to conflict, climate, weather systems, or changes in government, economic conditions, or technology.

7. Have students write in their journals about two of the following: How would you know you had left one region and entered another? What characteristics make one region different from another? Do regions change over time? How do you determine the boundaries of a region? Do you know any regions? List them.

Products and Assignments

- Individual journal entries
- Group store flyers for new grocery store

Post Assessment (30- 35 minutes)

Divide students into small groups. Distribute the **Five Themes Attribute Chart,** large paper, and markers to each group. Explain the directions. When groups have finished, have them share their chart with the class.

Debriefing and Reflection Opportunities (10-15 minutes)

Students should have some knowledge of all of the five themes of geography. Revisit the guiding questions and probe their understanding. Discuss.

Where in the World?

Professional Development Activity

1. You are private investigators in search of a criminal who is traveling throughout the world leaving clues of his or her whereabouts. Your job is to find out which locations this criminal has visited.

2. Locate where in the world this criminal has been. Record how you decided upon this location.

3. Discuss your findings. How do we describe where we live? How do geographers use location? How do landmarks affect the way in which we describe our location?

4. Try to figure out other **Where in the World** sheets. Discuss.

5. Create your own clue cards describing various places around the world.

Where in the World Worksheet

The Cheddar Museum has been robbed. They have hired the World Famous Private Investigator Firm (WFPIF) to find the valuable art piece and return it to their museum. As a PI of the WFPIF, it is your job to follow the clues the museum has sent you. Read the clues and discover where in the world the criminal has been. If you are successful, then you have helped the museum recover their art.

Directions:
Using the clues, state the city, country, state, or continent the criminal visited. Write the answer on the given line. Be prepared to justify your answer.

The criminal has been to:

Clue 1: The criminal was sighted by the Statue of Liberty which greets many visitors to this state: _____

Clue 2: Next the criminal was seen near one of the Seven Wonders of the World which still exists and was considered a tomb. _____

Clue 3: Later the criminal used a map to travel to 42 degrees North, 73 degrees West. _____

Clue 4: The criminal continued to travel to 53 degrees north, 1 degree west. _____

Clue 5: Last seen at the area bordered by California and Mexico _____

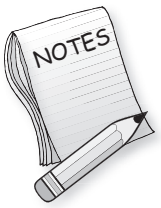
Clue 6: Then went just south of Vermont _____

Clue 7: Continued to northeast of Maine _____

Clue 8: Climbed a famous, tall monument which overlooks Paris, in the country of _____

Clue 9: The criminal crossed over a famous bridge which crosses over the Thames next to a tower, which once was a royal residence and later became a prison in this city._____

Clue 10: Finally came to the place that touches Canada and Maine where the art piece was recovered and returned to the museum. _____



Answer Sheet to Where in the World Worksheet:

Clue 1: New York , USA
Clue 2: Giza, Egypt
Clue 3: Connecticut, USA
Clue 4: England
Clue 5: Arizona, USA
Clue 6: Massachusetts, USA
Clue 7: New Brunswick, Canada
Clue 8: France
Clue 9: London, England
Clue 10: New Hampshire, USA

Name _____ Date _____

Three Maps Project

Task: You will be creating three personal maps.

Reminders:

1) Use a ruler and make them neat and colorful.
2) Include a compass rose, a key, and a title on each map.
3) Be sure your maps are accurate and proofread.

Map # 1 – Room Map

1) Close your eyes and imagine the inside of your bedroom. Where is the bed? Where is the dresser? Where is the window?
2) Draw your room using the scale 1"=1'.
3) Try to make it as accurate as possible.

Map #2 – Street Map

1) Close your eyes and imagine the route you take to get to school every day. What streets do you take? What landmarks do you pass?
2) Draw your route from home to school, labeling the streets and landmarks that you pass along the way.
3) Try to draw things in proportion to one another in terms of their size. (ex. Stop & Shop is bigger than your house and should look bigger on your map)

Map #3 – Town Map

1) Find a map that shows the location of your town compared to the other towns surrounding it. What shape is your town? What shape are the other towns? Look at the size of the different towns, as well as their locations. Are there any landmarks in your town or in the surrounding towns?
2) Draw your town and all of the towns or cities surrounding yours. Label the towns as well as any important landmarks.
3) Try to draw things in proportion to one another in terms of their size.

Final Product – Glue all three maps onto a piece of poster board or large construction paper. Be sure your name is on it and it is neatly labeled. Be able to discuss how you used relative and absolute location in creating your maps.

Due Date: _____

Making A Map : Three Map Project

Teacher Name: _____

Student Name: _____

Category	4	3	2	1
Neatness of Color and Lines	All straight lines are ruler-drawn; all errors have been neatly corrected, and all features are colored completely.	All straight lines are ruler-drawn; most errors have been neatly corrected, and most features are colored completely.	Most straight lines are ruler-drawn; most errors have been neatly corrected, and most features are colored completely.	Many lines, corrections of errors; and/or features are not neatly done.
Spelling/ Capitalization	95-100% of words on the map are spelled and capitalized correctly.	94-85% of the words on the map are spelled and capitalized correctly.	84-75% of the words on the map are spelled and capitalized correctly.	Less than 75% of the words on the map are spelled and/or capitalized correctly.
Scale	All features on map are drawn to scale, and the scale used is clearly indicated on the map.	Most features on map are drawn to scale, and the scale used is clearly indicated on the map.	Many features of the map are NOT drawn to scale, even though a scale is clearly indicated on the map.	Many features of the map are NOT drawn to scale, AND/ OR there is no scale marker on the map.
Labels & Features - Neatness	90-100% of the labels/ features can be read easily.	89-80% of the labels/ features can be read easily.	79-70% of the labels/features can be read easily.	Less than 70% of the labels/ features can be read easily.
Map Legend/Key	Legend is easy-to-find and contains a complete set of symbols, including a compass rose.	Legend contains a complete set of symbols, including a compass rose.	Legend contains an almost complete set of symbols, including a compass rose.	Legend is absent or lacks several symbols.
Timeliness	Project is in on time.	Project is one day late	Project is two days late.	Project is inexcusably late.

Name _____ Date _____

Quiz

Each question in section one is worth 1 point
Write all answers in complete sentences.
Section One:
1) What are the two different ways to describe a location?

2) Which way of describing location is being used when a geographer explains Mr. Smith's house is on 320 West Main Street, Cheshire CT, 06410, U. S. ?

3) Which way of describing location is being used when a geographer explains that a river is 250 miles north of San Antonio?

4) Which way of describing location is being used when a geographer explains that New York is in the United States of America?

5) Which way of describing location is being used when a geographer explains a place by using 51 degrees north and 6 degrees east?

6) To pinpoint a location a geographer uses _____ and _____.

7) What do the letters N, S, E and W stand for on a map?

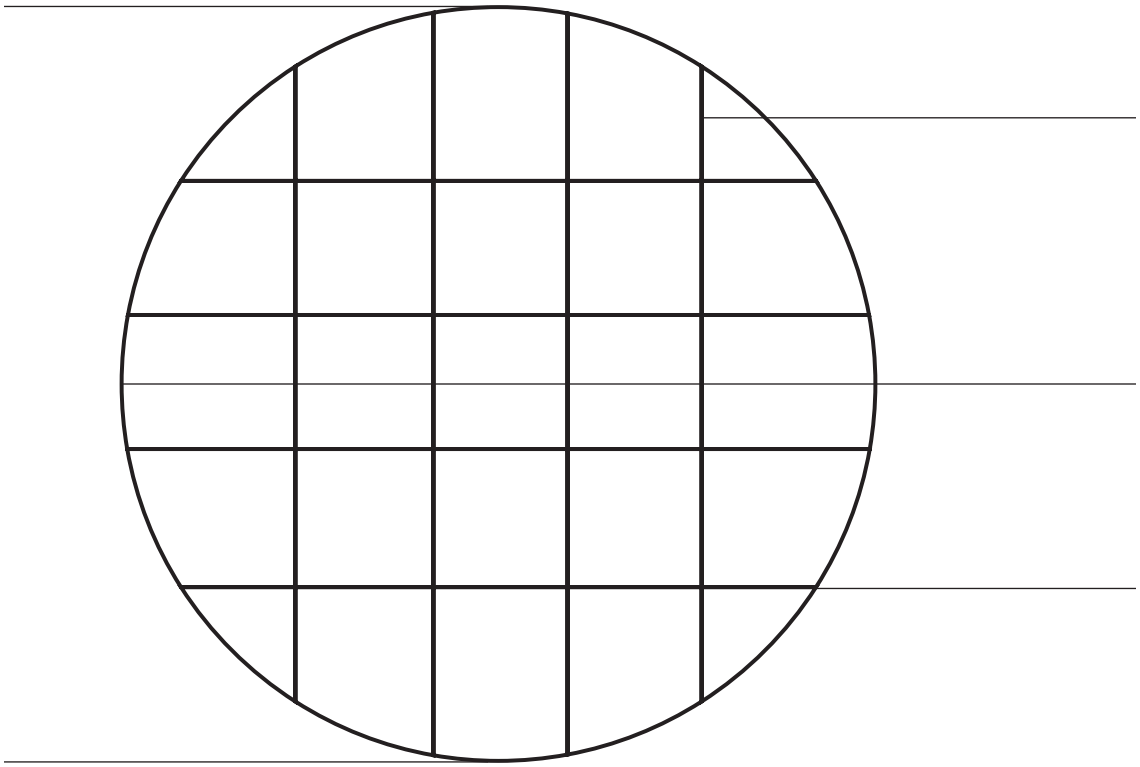
8) The _____ divides the earth into two equal North and South Hemispheres?

9) The _____ labels degrees east/west.

10) The _____ labels degrees north/south

Section II

Label the picture below and answer the questions. Each question is worth 2 points.



Answer Key

Name _____ Date _____

Quiz

Each question in section one is worth 1 point
Write all answers in complete sentences.

Section One:

1) What are the two different ways to describe a location?

Absolute and relative location

2) Which way of describing location is being used when a geographer explains Mr. Smith's house is on 320 West Main Street, Cheshire CT, 06410, U. S. ?

Absolute location

3) Which way of describing location is being used when a geographer explains that a river is 250 miles North of San Antonio?

Relative location

4) Which way of describing location is being used when a geographer explains that New York is in the United States of America?

Relative location

5) Which way of describing location is being used when a geographer explains at place by using 51 degrees north and 6 degrees east?

Absolute location

6) To pinpoint a location a geographer uses _____ and _____.
Longitude and latitude lines

7) What do the letters N, S, E and W stand for on a map?

These are the directions on a compass rose. They stand for north, south, east and east

8) The _____ divides the earth into two equal North and South Hemispheres?

The equator

9) The _____ label degrees east/west.

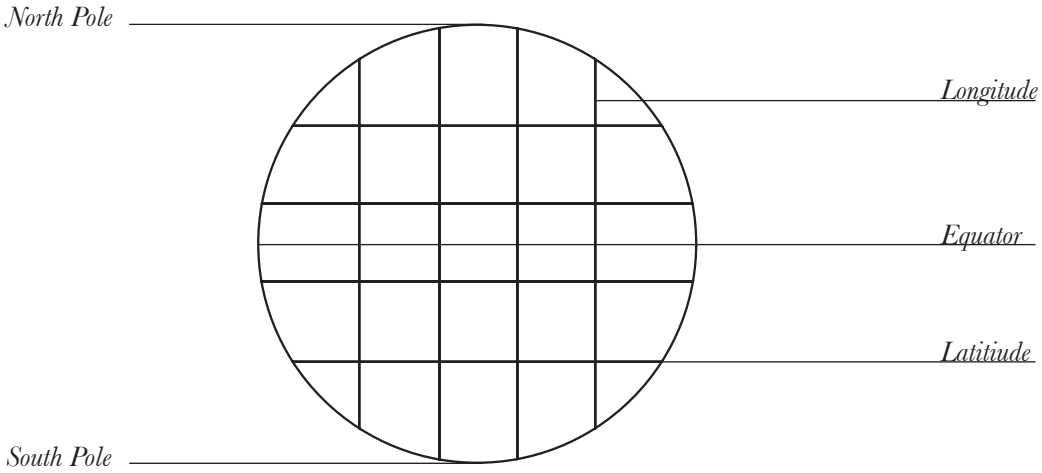
The longitude lines

10) The _____ label degrees north/south

The latitude lines

Section II

Label the picture below. Each question is worth 2 points.



ABC Geography Book

Task: You are creating a geography riddle book. You are making 26 alphabet riddles, each one based on one of the 26 letters of the alphabet. If possible, the products the people see should be from the same country in which they live. (See sample below.)

Reminders:

1) Each riddle will be written on a separate page but will follow the same format.
2) Your last page needs to be your answer key – answers for all riddles.
3) Your first page should be your cover.
4) This book should be colorful and neatly done.

Materials Needed:

1) an atlas
2) 28 pieces of paper
3) pen/pencil and colored pencils or markers

Format Samples (pages A & B):

A my name is Alice
And my brother's name is Adam.
We come from 43 N, 74 W,
And we sell apples.

B my name is Bob
And my sister's name is Barbara.
We come from 41 N, 2 E,
And we sell baseballs.

Answer Sheet Sample:

A Riddle: Albany, New York
B Riddle: Barcelona, Spain

Due Date: _____

ABC Geography Book - Rubric

Student's name _____
Title of book _____

Category	4	3	2	1
Timeliness	In on time	Late – 1 day	Late – 2 days	Late – 2+ days
Cover	Exceptionally attractive in terms of layout, design, and neatness	Attractive in terms of layout, design, and neatness	Messy or very poorly designed	No cover at all
Creativity	Contains many creative and different ideas	Contains a few creative and different ideas	Distracting and confusing, but some effort shown	Very little evidence of creativity
Mechanics	Capitalization, spelling, and grammar are perfect.	There is one error in capitalization, spelling, or grammar.	There are two errors in capitalization, spelling, or grammar.	There are more than two errors in capitalization, spelling, or grammar.
Content	Content is accurate throughout the book.	There is one content error.	There is one content error.	There are more than two content errors.

Score: _____
20

Teacher Comments:

Hands Down

Congratulations! You and your crew have just discovered a new island. You are being sent to explore and map it out. Your job is to create a physical map. The map should include all of the physical features you discover. These might include rivers, mountains, lakes, plateaus, lagoons, caves, etc. It must include at least 5 different physical features. Make your map colorful. Also, your map must include a symbol key, a compass rose, an accurate scale, and longitude and latitude lines.

Directions:

Trace your hand on given paper facing any direction.
Draw all of the physical features on your traced hand.
Create a key, a compass rose, a scale, and longitude and latitude lines.
Make sure your map is neat and all straight lines are drawn with a ruler.
Add some color to your map.

Have fun!!

Making A Poster : Five Themes Attribute Chart

Teacher Name: _____

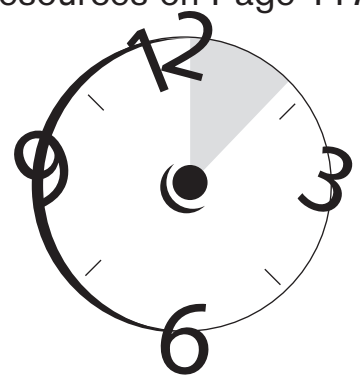
Student Name: _____

Category	4	3	2	1
Required Elements	The poster includes all required elements as well as additional information.	All required elements are included on the poster.	All but one of the required elements are included on the poster.	Several required elements are missing.
Content - Accuracy	At least seven accurate facts are displayed on the poster.	Five-six accurate facts are displayed on the poster.	Three-four accurate facts are displayed on the poster.	Less than three accurate facts are displayed on the poster.
Attractiveness	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed. It is not attractive.
Title	Title can be read from 6 ft. away and is quite creative.	Title can be read from 6 ft. away and describes content well.	Title can be read from 4 ft. away and describes the content well.	The title is too small and/or does not describe the content of the poster well.
Mechanics	Capitalization and punctuation are correct throughout the poster.	There is one error in capitalization or punctuation.	There are two errors in capitalization or punctuation.	There are more than two errors in capitalization or punctuation.
Grammar	There are no grammatical mistakes on the poster.	There is one grammatical mistake on the poster.	There are two grammatical mistakes on the poster.	There are more than two grammatical mistakes on the poster.

Maps and Their Uses

Parallel: Core/Identity/AID

Time Allocation: 4 hours, 20 minutes
(5-45 minute class periods, 1-35 minute class period)
Required Materials and Resources on Page 117



Module Overview

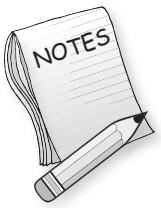
During these sessions students will become familiar with the way geographers organize information in order to study the earth's surface. Students will interpret the information provided on maps and focus on the advantages and disadvantages of various types of maps. Using maps, they will be responsible for understanding scale, compass, distortion, globe, cardinal directions, key, and different types of maps and their uses. They will also revisit the ideas of longitude and latitude, absolute and relative location, regions, hemispheres, and natural resources.

Guiding Questions

- What comprises the earth's surface?
- What is a natural resource?
- What kind of information do maps give us?
- Could I be a cartographer?

BIG IDEA

Maps



Content Goals

Universal Theme(s)

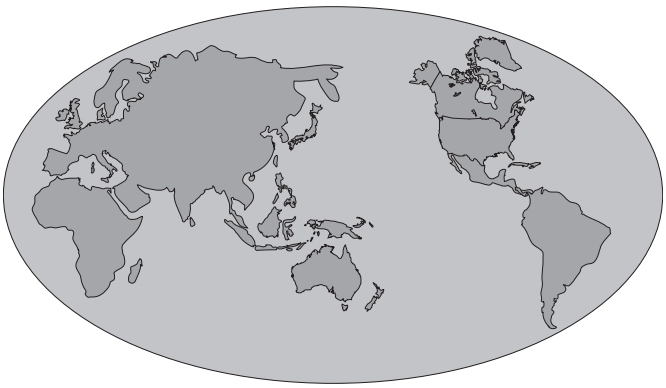
Location

Principles and Generalizations

- The earth's surface is connected. It can be studied by breaking it into individual parts and studying maps.
- Maps can provide both accurate and inaccurate information.
- Geographers use many different types of maps.

Concepts

- Hemisphere
- Longitude/latitude
- Parallels
- Location – relative and absolute
- Degrees
- Equator
- Meridians
- Prime meridian
- International date line
- Compass
- Scale
- Distortion
- Projection
- Globe vs. map
- Key
- Cardinal directions
- Topography
- Coordinates
- Cartographer



Teacher Information

- The way a culture draws its maps can tell us how people in that culture see their world.
- Maps can distort size, shape, and distance, unlike globes.

- Distortion is the change in the accuracy of shapes and distances.
- Projection is the method of putting a map of the earth onto a flat surface.
- The International Date Line is the imaginary line running at approximately 180 longitude in the middle of the Pacific Ocean, marking the time boundary between one day and the next.
- The Prime Meridian is located at 0 longitude and is the place where time zones begin.

Skills

- Reason deductively
- Inquire
- Find details
- Analyze
- Compare/contrast
- Observe
- Record
- Reflect

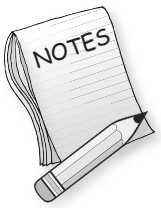
Materials and Resources

1. Round Balloons
2. Scissors
3. Tape
4. Permanent markers
5. Rulers
6. Glue
7. Graph paper
8. Balloon Worksheet
9. Mapping a New Nation guidelines & rubric
10. Pictures of famous landmarks
11. Current articles of interest involving cartographers

Preparation Activities

Introductory Activity

N/A



Lesson #1
Copy **Balloon Worksheet.**

Lesson #2
Gather disposable pictures of famous landmarks.

Lesson #3
Create a list of 10 geographic words.

Lesson #4
Copy **Mapping a New Island Nation** guidelines and rubric – one of each for every student.

Lesson #5
N/A

Lesson #6
Print and copy at least several articles involving cartographers that are interesting and of an appropriate length. A good source is http://www.nationalgeographic.com/ Put "cartographer" into the search bar, and you should be able to find some good articles. You can also try http://www.google.com

Introductory Activity (10 minutes)

- Ask students to point to the different cardinal directions. Query them about which direction the sun rises and sets. Ask students why this is important. How is this relevant to geographers? Ask students when they would need to use these directions and where they can be found.
- Discuss different types of maps. Discuss obvious differences between maps and globes.

Pre-assessment
Record discussion ideas from above and save for future use.

Teaching and Learning Activities (35 minutes)

Lesson #1:

1. Tell students that they will be creating a new type of globe using a balloon and a pen.

2. Distribute a round balloon and a permanent marker to each student.

3. Have students carefully inflate balloon and hold the base in their hand. Do not tie it closed.

4. Tell students to find a classmate to hold their balloon for them as they write their full name on the balloon so that it circles all the way around it horizontally. Let balloon dry for 30 seconds. Then have partners switch roles.

5. Distribute the **Balloon Worksheet.** Tell students they will be deflating their globes and then changing them into maps. What changes do they expect to occur? These changes are now their hypothesis.

6. Have students carefully deflate their balloons and record their observations on their worksheets.

7. Distribute scissors to each student.

8. Instruct students to carefully cut the top of the balloon off, thus leaving a circular hole and then cut the rim off the base of the balloon horizontally.

9. Then students should carefully stick scissors in the open base and cut vertically to meet the circular hole just created; thereby flattening out the balloon in one large piece.

10. With letters facing up, students should cut in along the top and bottom of the balloon roughly 1/2" about four times on both the top and the bottom.

11. Students should then stretch the balloon to flatten it as much as possible and

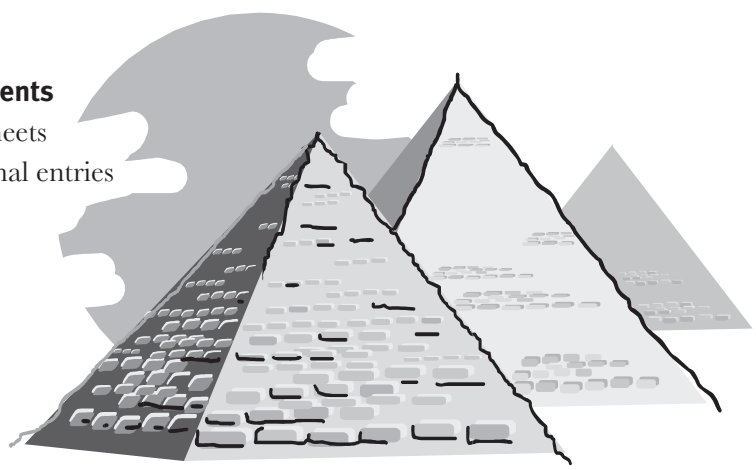
then tape it to the top of their desks. Students should notice that distortion has occurred. Teacher may need to introduce and explain the terminology.

12. Record observations and share with class.

13. Ask students what they needed to do in order to flatten the round balloon, thus creating a projection. How would this alter a map?

14. Discuss the differences in terms of both positive and negative qualities of flat and round maps. Ask students what cartographers do to alleviate this distortion.

15. Have students create a Venn diagram in their journals about maps and globes.



Products and Assignments

- Balloon Worksheets
- Individual journal entries

Extension Activities

N/A

Post Assessment

N/A

Teaching and Learning Activities (45 minutes)

Lesson #2:

1. Instruct students to choose a large picture of a famous landmark and glue it onto a sheet of paper.

2. Using a ruler, have students draw a grid of large 1" squares on the drawing.

3. On graph paper with smaller squares, count and cut out the same number of squares that they drew on the large grid.

4. Copy the shape of the picture carefully, square by square onto the graph

paper. Circulate to help those students who may need assistance.

5. Ask students to discuss with a partner what happened to their picture, how this transfer pertains to maps, and how something is drawn to scale. After students have conferred with partners, invite them to share with the class. Clear up any misunderstandings that may exist.

6. Discuss how keeping something the same shape but making it much bigger or smaller than it is in reality is an important concept to cartographers.

7. Be sure that students can make the connection between their grid lines and lines of longitude and latitude. Assist students that need help.

Products and Assignments

- Scale drawings of landmark
- Scale drawings of bedroom

Extension Activities

Invite students to draw a scale plan of their bedroom. Students can measure the distance by taking steps. Tell students to create a scale of one step equals a foot. Draw the bedroom and its contents.

Post Assessment

N/A

Teaching and Learning Activities (45 minutes)

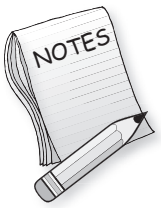
Lesson #3:

1. Ask students how they find the location of a place. Discuss how you can use maps to show both absolute and relative location. Focus on absolute location.

2. Question students about how they would find the absolute location of something on a map.

3. Using graph paper, and ten teacher chosen geographical words, create a battleship game board.

4. Instruct students to play a game against a partner. The first person to locate all of his or her opponent's words is the winner.



5. Students should then write in their journals about how this game pertains to the idea of absolute and relative location and to longitude and latitude.

6. Engage in a class discussion about their ideas. Clarify any misunderstandings. Reinforce correct understanding of absolute and relative location as well longitude and latitude.

Products and Assignments
N/A

Extension Activities
N/A

Post Assessment
N/A

Teaching and Learning Activities (45 minutes)
Lesson #4:

1. Remind students about their **Creating 3 Maps** project (Module 1, Lesson 2). Discuss the differences between those three maps and generate a class list of all different types of maps. Make sure students realize that all maps have certain aspects in common (compass roses, scales, longitude and latitude lines and a key).

2. Hand out **Mapping a New Nation** project guidelines.

3. Discuss and clarify any uncertainties.

4. Give students time to begin this project in class.

Products and Assignments
N/A

Extension Activities
N/A

Post Assessment
N/A

Teaching and Learning Activities (35 minutes)
Lesson # 5:

1. Students can be given class time to work on their **Mapping a New Nation** project, at their teacher's discretion.

2. Circulate and offer scaffolding to those students who need more help.

Products and Assignments

- **Mapping a New Nation** project

Extension Activities
N/A

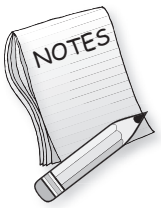
Post Assessment
Mapping a New Nation project

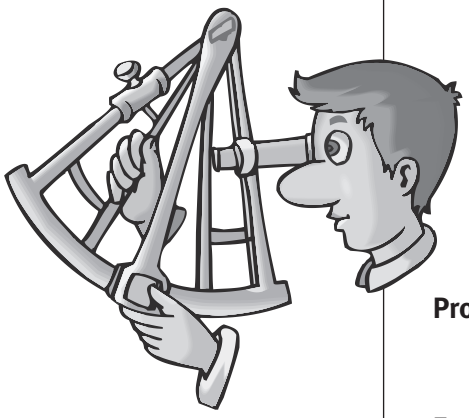
Teaching and Learning Activities (35 minutes)
Lesson #6

1. Explain to students that in many ways they have already acted as cartographers or map makers and employed many of the skills that a cartographer uses when they created different maps (maps of their bedroom, street, town, **Hands Down Island,** and **New Island Nation**).

2. Tell students that now you want them to look at these skill sets and reflect upon how they fit into their skills and preferences. Distribute the handout **Can I Be a Cartographer?** to students. Explain that it is not a test but a way for them to express their feelings about geography and cartography.

3. Have students evaluate the following statements with one of these answers:
   A. Agree
   B. Not sure
   C. Disagree





4. Give students time to think about the questions and their responses and then have them evaluate their answers. Add up the A's. If they have 7-9 A's, they have a few characteristics of a cartographer. If they have 10-12 A's, they have some of the characteristics of a cartographer. If they have 13-15 A's, they have many characteristics of a cartographer.

5. Read one of the articles about a cartographer or a current news story that involves a cartographer. Then in a several paragraphs explain how the cartographer in the story used the skills you just evaluated in addressing his or her project and the problems it presented. Conclude with a reflection of your own about how you think you would like working on such a project.

Products and Assignments

- Students' cartographer reflections

Extension Activities

(AID) For students who show a real interest and aptitude for cartography have them do one of the following projects.

- o Choose any state and create a culture map which shows the diversity of the people who have settled there. Include a map key, scale, and a bibliography.
- o Choose any state and create a map that reflects your interests (i.e., a map of all of the bike trails, hiking trails, amusement parks, etc.) Include a map, key, scale, and a bibliography

Use the rubric at the end of this lesson to assess their project.

Post Assessment

(AID) state maps

Debriefing and Reflection Opportunities (10 minutes)

Revisit the guiding questions for this module. Encourage students to share the new concepts they have learned and ask them to discuss any ideas that need clarification or further explanation. Students who participate in Extension Activities could share their projects at this time.

Can I Be A Cartographer?

1. I enjoy working with numbers and doing problems that have a correct answer.

2. I like doing research and finding out new information about a subject.

3. I like organizing material and finding ways to classify information.

4. I like learning about different cultures and countries.

5. I like learning about the location of places and patterns of the environment.

6. I am enthusiastic about maps of all kinds, including the sky, the ocean floor, the land, vegetation, and population.

7. I like thinking about the world visually.

8. I enjoy using technology and its varied applications.

9. I like design. I like working with colors and using my talents to produce a product.

10. I am creative.

11. I like to create a product using my hands.

12. I like to plot things.

10. I am patient and have an eye for detail.

13. I am accurate and precise. I enjoy the finishing touches of a project.

14. I can be patient and focused when working on a project

15. I like working in a comfortable quiet place where I can focus.

Balloon Worksheet

Name _____

Question_____

Hypothesis _____

Recording 1st observation _____

_____

_____

_____

Recording 2nd observation _____

_____

_____

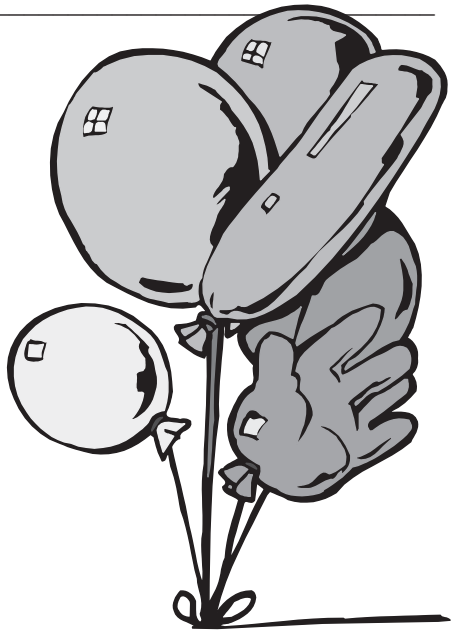
_____

Outcome /Results _____

_____

_____

_____



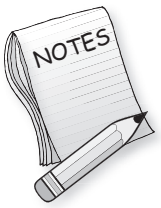
Mapping a New Island Nation

Step 1 – Make an outline map. Draw an outline map of your country on a sheet of white paper. Create a name for your country and write it on the map. Color the ocean blue and add the following: latitude and longitude lines, the ocean's name, names of lakes and rivers, a scale of miles, and a compass rose.

Step 2 – Make a climate map. Draw a precipitation and a temperature map. The patterns should resemble those of countries located near your island.

A. Precipitation map: Label an outline map "Yearly Precipitation." Add a key that shows what the different colors represent. Draw lines to divide the island into bands that represent different amounts of precipitation. Color the island to match the key.

B. Temperature map: Label a map "Average Temperature." Add a key that explains what the different colors represent. Draw bands to represent different temperatures. Color the map to match the key.



Mapping a New Island Nation

Teacher Name: _____

Student Name: _____

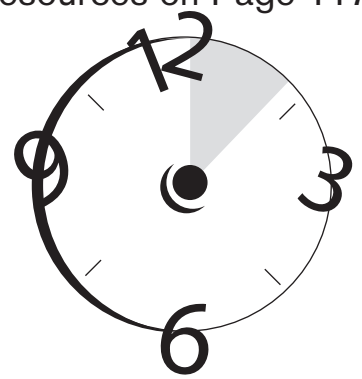
Category	4	3	2	1
Outline Map	Outline map contains all required features including a scale of miles, compass rose, and all names of land and water. All features are colored completely.	Outline map contains most of required features and most of the names of land and water. Most features are colored completely.	Outline map contains some of the required features and some of the names of land and water. Some features are colored completely.	Outline map is missing many of the required features. Few if any of the features are colored completely.
Precipitation Map	Outline map is neatly drawn and contains a key to different colors. Bands which represent different amounts of precipitation are clearly drawn and colored completely to match key.	Outline map is drawn and contains a key to different colors. Bands which represent different amounts of precipitation are drawn and colored to match key.	Outline map is drawn and contains a key to most of the colors. Some bands which represent different amounts of precipitation are drawn and colored to match key.	Outline map is drawn. The key may be missing or incomplete. Few if any bands are drawn to represent different amounts of precipitation and may not be colored or may not match key.
Temperature Map	Outline map is neatly drawn and contains a key to different colors. Neatly drawn lines divide island into different bands which represent different temperatures. Island is colored completely to match key.	Outline map is drawn and contains a key to different colors. Lines divide island into different bands which represent different temperatures. Island is colored completely to match key.	Outline map is drawn and contains a key to most of the colors. Some bands which represent different temperatures are drawn and colored to match key.	Outline map is drawn. The key may be missing or incomplete. Few if any bands are drawn to represent different temperatures and may not be colored to match key.
Labels & Features – Neatness, Spelling, Capitalization	90-100% of the labels/ features can be read easily. Straight lines are ruler-drawn. All errors have been neatly corrected. Words are 90 – 100% spelled and capitalized correctly	89-80% of the labels/ features can be read easily. All straight lines are ruler-drawn. Most errors have been neatly corrected. Words are 94-80% spelled and capitalized correctly.	79-70% of the labels/ features can be read easily. Most straight lines are ruler-drawn. Some errors have been neatly corrected. Words are 84-75% spelled and capitalized correctly.	Less than 70% of the labels/features can be read easily. Many lines, corrections of errors and/or features are not neatly done. Less than 75% of the words on the maps are spelled and/ or capitalized correctly.
Map Keys	Keys are easy-to-find and read and contain a complete set of symbols.	Keys contain a complete set of symbols.	Keys contain an almost complete set of symbols.	Keys are absent or lack several symbols.
Timeliness	Project is in on time.	Project is one day late	Project is two days late.	Project is inexcusably late.

(AID) Rubric for State Map (Culture or other map of choice)					
Category	**1**	**2**	**3**	**4**	**Your Score**
Quality of Map content information	Information is cursory or incorrect. Little understanding of content is evident from map.	Some solid information presented on map; however, some information is incorrect or cursory.	Information is clear and correct throughout most of map.	Information is well presented, clear, and correct throughout map.	1 2 3 4
Research reflected	Little research reflected in map content. Information is insufficient or incorrect.	Some research is reflected in map, but it does not present all of the necessary information.	Map covers needed information, but it could reflect information more thoroughly as a result of more extensive research.	All of the criteria necessary for the map were completely addressed; map reflects extensive research.	1 2 3 4
Quality of graphics/ scale/and map key	Graphics are weak. They do not clearly depict the map's intention. There is no map key, or if one is present, it is missing symbols and does not aid in understanding the map. Scale in map is inaccurate.	Graphics are satisfactory, but do not all reflect purpose of map. There is a map key, but is may not be complete. Scale may not be accurate.	Graphics are good. Map key is present and contains a number of keys which add to the understanding of the map's purpose. Scale is generally accurate.	Graphics are excellent. Map is neatly drawn. The map key is easy to find and contains a complete set of symbols which lend understanding to the purpose of the map. Scale in map is accurate.	1 2 3 4
Creativity in showing a new direction or a different viewpoint in visual presentation	Map is creative in only a limited way. No new direction or viewpoint in visual presentation is shown.	Map is somewhat creative, but does not depict any new direction or viewpoint in visual presentation.	Map is creative and visual presentation is good, but it does not necessarily depict a new direction or viewpoint of the map's topic.	Map is creative and original. It depicts a new viewpoint of map's topic.	1 2 3 4
Quality of independent effort	Map reflects little independent effort. There is too much reliance on other sources.	Map shows some independent effort.	Map shows good independent effort.	Excellent independent effort is reflected in map.	1 2 3 4
Quality of bibliography	The bibliography is incomplete and contains errors in format.	The bibliography is incomplete or contains errors in format.	The bibliography is complete but contains a few errors in format.	The bibliography is complete and contains no errors in format.	1 2 3 4

Climate and Seasons

Core/Connections

Time Allocation: 1 hour, 30 minutes
(2-45 minute class periods)
Required Materials and Resources on Page 117



Module Overview

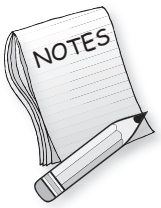
During these two sessions, students will explore how the earth rotates on its axis and how it revolves around the sun. Students will be able to describe how day and night are related to the rotation of the earth. The connection between the earth's tilt and orbit around the sun and seasonal changes on earth will be analyzed. Students will also understand how the movement of the planets through space affects our climate and vegetation.

Guiding Questions

- How does the earth's movement affect our climate?
- Why does the earth experience seasonal changes?
- How are day and night determined?

BIG IDEA

The Effects of Earth's Rotation and Revolution

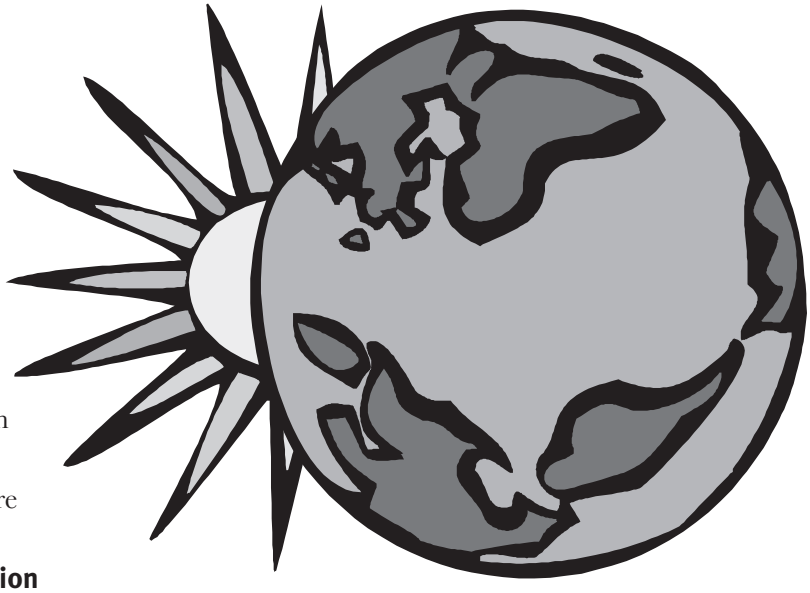


Content Goals

Universal Themes
Climate

Principles and Generalizations
- The earth's climate depends upon its movement in space.
- The natural and cultural features of the earth are affected by its rotation and revolution.

Concepts
- Orbit
- Axis
- Rotate
- Speed
- Day
- Night
- Revolve
- Seasons
- Tilt
- Sun
- Vegetation
- Climate
- Agriculture



Teacher Information
- The earth rotates once every 24 hours on its axis.
- Once every 365¼ days the earth revolves around the sun.
- The earth is tilted at an angle of 23.5 degrees.

Skills
- Develop hypotheses
- Make observations
- Analyze information
- Summarize

Climates and Seasons

Materials and Resources

1. Yellow and blue balloons
2. Flashlights
3. Markers
4. White paper
5. Box lid
6. Styrofoam balls
7. Skewers
8. Map or globe
9. **A Journey of Seasons** worksheet

Preparation Activities

Activity #1

1. Inflate balloons
2. Gather flashlights, markers, white paper, and box lid

Activity #2

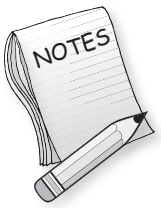
1. Create model of earth with Styrofoam balls and skewers
2. Copy **A Journey of Seasons** worksheet
3. Gather skewers and markers

Introductory Activities (5 - 10 minutes)

- Ask students what they know about seasons and how their lives are affected by seasonal changes. Discuss favorite seasons and reasons for their preferences.
- Write about the seasons individually and then engage in a class discussion about possible causes of seasonal change.

Pre-assessment

The discussion of seasonal changes should enable you to determine the amount of knowledge the students already possess on this topic. **SEARCHLIGHT**: This is an opportunity to spot students with a rich background and above-average insight into the topic. These students might be good candidates for AID activities.



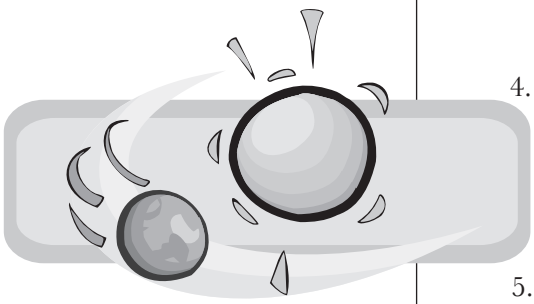
Teaching and Learning Activities

Activity #1: Our Moving Planet (40 minutes)

1. Pair students

2. Distribute a yellow balloon and a smaller blue balloon to each pair of students. The student holding the yellow balloon is the sun. The blue balloon holder is the earth.

3. Have the "earths" spin in place to show how our planet rotates on its axis and completes a full day, or 24 hours. Share with students the fact that other planets rotate on their axis at different speeds than earth.



4. While they are spinning on the earth's axis, have them orbit the sun. This will demonstrate the number of times the earth must spin on its axis to make a full revolution around the sun, 365¼ days. Point out that rotating on one's own axis takes much less time than revolving around the sun.

5. Darken the room and have a student shine a flashlight directly on a white piece of paper. Ask a volunteer to trace the circle formed by the light with a marker.

6. Without moving the flashlight, slightly tilt the box lid away from the flashlight. Have another student trace this area with a different colored marker.

7. Compare the two shapes. Discuss which would represent summer, with more direct heat from the sun, and which one represent winter, with diffused heat.

8. Share with students the idea that at certain times of the year days are longer than nights and at other times the opposite is true. Elicit possible explanations for this fact.

Activity #2: A Journey of Seasons (40 minutes)

1. Distribute large Styrofoam balls to each student along with a skewer.

2. Instruct students to draw a line around the middle of the sphere, or model of the earth, that represents the equator.

3. Have students push the skewer through the top and bottom (North and South Poles)

4. Using magic marker, have students draw a stick figure representation of them on the earth where they live.

5. Instruct students to hold their models on an angle and make sure that everyone knows that the earth does not sit upright, that it is tilted at an angle of 23.5 degrees.

6. Distribute **A Journey of Seasons** worksheet. Discuss with students so they know what to be looking for during the experiment.

7. Pair students up and choose one person to act as the sunshine, holding a flashlight.

8. The other student is the earth and holds his or her model in front of himself or herself, remembering to tilt the model.

9. Students should then demonstrate the revolution of the earth around the sun. The earth should walk slowly around the light, holding the sphere in front of him or she so that the light shines on it at all times.

10. Each pair should then complete the **A Journey of Seasons** worksheet.

11. A class discussion should follow. As the earth makes its rotation around the sun, the sun's rays shine on the surface in varying degrees and at different angles, causing the seasons to change. The sun's rays are more intense and direct near earth's equator and less direct at its polar caps. Seasons in the two hemispheres are different because while one is directly facing the sun, the other is tilted away from it.

12. Ask a volunteer to find the Caribbean Islands on a world map or globe. Discuss the climate, or weather patterns, of that area based on proximity to the equator.

13. Engage students in a discussion of what types of agriculture and vegetation they would expect to find there. Share pictures of vegetation found at that location.

14. Repeat this activity with another land area such as Alaska.

Products and Assignments

- Completed **A Journey of Seasons** worksheets

Extension Activity

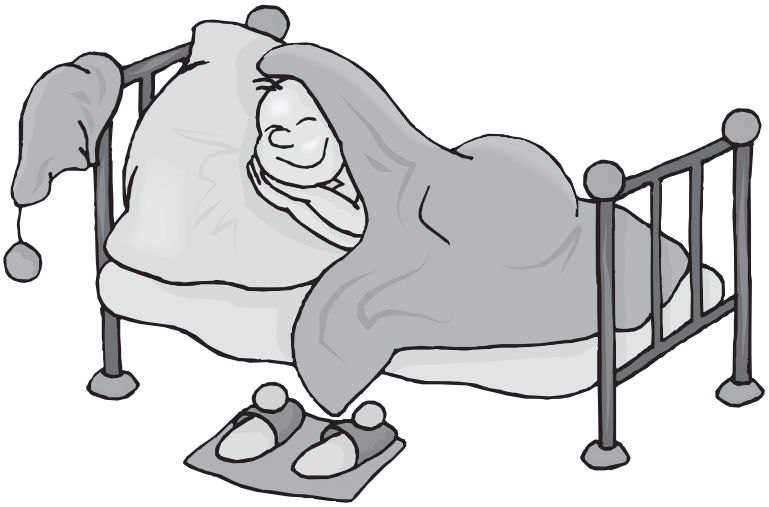
Poetry is one great way through which people have tried to capture their feelings about seasonal changes. Have students explore poetry books to see how experts capture the beauty of the seasons. Students can then create their own poems, and may choose to include a description of what causes seasonal change in them.

Post Assessment

N/A

Debriefing and Reflection Opportunities (5 – 10 minutes)

Review the principles of the lesson. Invite students to respond to the following questions: How does the earth's movement affect our climate? Why does the earth's experience seasonal changes? How are day and night determined?



Name _____ Date _____

A Journey of Seasons

1. What is the difference between the earth's rotation and the earth's revolution? _____
_____
_____

2. What causes the earth to have seasons? _____
_____

3. When does the light fall directly on your figure? What time of year is it then? _____
_____
_____

4. How does the angle at which the sun's rays hit the earth affect the seasons? _____
_____

5. When the Northern Hemisphere is experiencing winter, what season are the people in the Southern Hemisphere exposed to? Why? _____
_____
_____

6. Why are the seasons different in the Northern and Southern Hemispheres? _____
_____

Challenge Questions - A Journey of Seasons

1. If the earth were not tilted on its axis, how do you think the seasons would be affected? Explain. _____

_____

_____

2. As time passes, the earth is spinning more and more slowly. How will this eventually affect the length of a day? _____

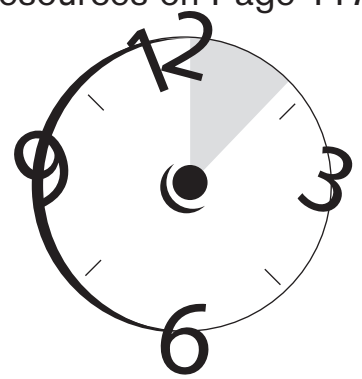
_____

_____

Earth's Changing Shape and Crust

Core/Connections (AID)

Time Allocation: 2 hours
(2-60 minute class periods)
Required Materials and Resources on Page 117



Module Overview

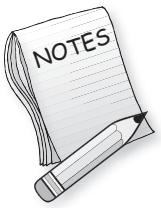
During these two sessions, students will investigate the theory of plate tectonics and how these plates are responsible for shaping the earth. They will be acquainted with the concept that the earth is a dynamic ever-changing planet and that its plates have been moving for millions of years and continue to do so even today. They will be able to identify the core, mantle, and crust of our planet and how the forces within the earth cause alterations on the surface. In doing so, students will also discover the natural processes that produce earthquakes, volcanoes, and mountains. Finally, they will understand how weathering and erosion affect our planet.

Guiding Questions

- What are plate tectonics?
- How is the earth's shape changed?
- How do weathering and erosion affect our planet?

BIG IDEA

Changes from the Earth's Plates, Weathering and Erosion



Content Goals

Universal Theme

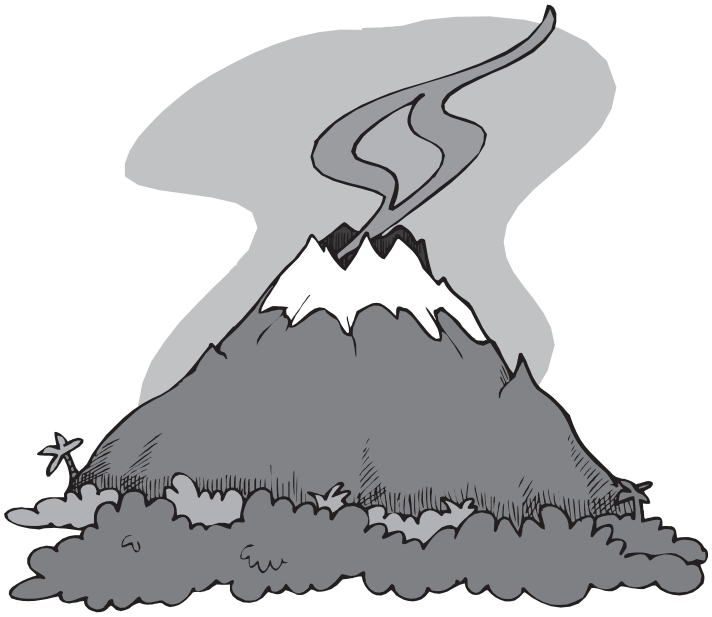
Change

Principles and Generalizations

- Geographers study plate tectonics.
- The earth was once one huge landmass called Pangaea.

Concepts

- Pangaea
- Laurasia
- Gondwana
- Panthassla
- Plates
- Volcanoes
- Erosion
- Weathering
- Earthquakes
- Crust
- Mantle
- Core
- Core
- Ring of Fire



Teacher Information

- The earth's surface is composed of more than 12 major pieces of crust, or plates.
- The plates move only 1 to 4 inches per year.
- The plates float on magma, which alters the shape of the planet.
- Weathering and erosion wear away earth's landforms and create soil.
- Mountains were created because of constant movement of the earth's plates.

Skills

- Make observations
- Predict

- Develop hypotheses
- Analyze data
- Compare/contrast

Materials and Resources

- World maps
- Map of Pangaea
- Large blue construction paper
- Scissors
- Glue
- Apples
- Knife
- Toothpicks
- Paper plates
- Large rocks
- Soil
- Clear container
- Small rocks
- Plastic containers with lids
- 12"x18" white construction paper
- Magnifying glasses
- Baking pans
- Sand
- Twigs
- Small rocks
- Straws
- Watering can

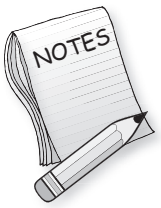
Preparation Activities

Activity #1

1. Create apple model of the earth's layers with crust, mantle, and core labeled using toothpicks.

Activity #2

1. Put soil in a clear container.
2. Fill baking pans with sand – one pan for each pair of students.
3. Fill watering can with water.



Introductory Activities (5 – 10 minutes)

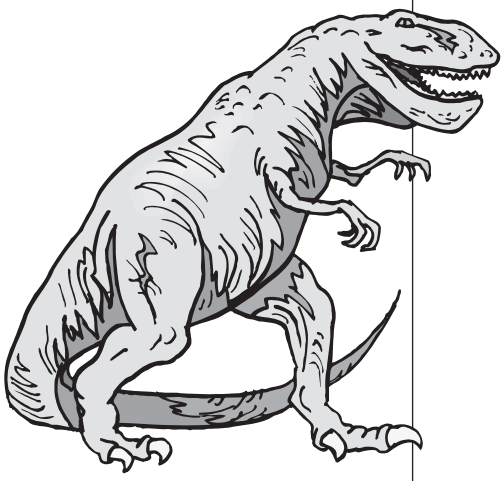
Lead a class discussion as to why students think the earth looks as it does. Ask them how their lives would be different if all land was connected? How would it affect travel? Temperature? Culture?

Pre-assessment

SEARCHLIGHT: Listen carefully to the responses given during the introductory activity. These responses will enable you to determine the amount of knowledge students already possess on this topic, if any. Students with a wealth of prior knowledge could benefit from the extension activities.

Teaching and Learning Activities (95 minutes total)

Activity #1: How has the earth's shape changed? What might our planet look like in the future? What can be found inside of our planet? (50 minutes)



1. Distribute three world maps to each student along with a map of Pangaea and two pieces of large blue construction paper.

2. Students should cut out the continents from one of the world maps and paste them at the position in which they were located 250 million years ago in the great ocean called Panthassla, using the map of Pangaea as a guide.

3. Discuss Laurasia and Gondwana. Share the theory of plate tectonics.

4. Students will then make a prediction of what the world will look like in 100 million years. They should then cut out the continents from another world map and paste them onto another sheet of blue paper.

5. Have the students write what their reasons were for placing the continents where they did. Share these maps and ideas.

6. Point out the similarities between the earth's layers and the apple using your model. The skin of the apple will represent the crust of the earth, the thinnest layer. The meat of the apple will be the mantle of the earth, the largest layer that is composed of molten rock. The core will represent the inner and outer core of the earth, which is a little like a small round ball.

7. Cut enough apples into quarters so that each student has a fourth of an apple. (Cut from the stem down through the core.)

8. Students should draw and label a diagram of this apple representation of the layers of the earth. They may then eat the model.

9. As they are enjoying their treat, discuss formations of volcanoes and earthquakes. Draw diagrams on board. Volcanoes are formed when plates push against each other, forcing one under another. The pressure and heat then build up and race upward, exploding on the surface. Earthquakes occur when plates push against each other and cause the crust to crack and split. When the crust moves along the cracks, it releases energy as an earthquake.

Activity #2: How can the earth's crust change over time? (50 minutes)

1. Display a large rock and some soil in a clear container. Ask students what they think these two things have in common. Discuss.

2. Divide students into pairs and have each pair place a layer of pebbles or small rocks in a plastic container with a lid.

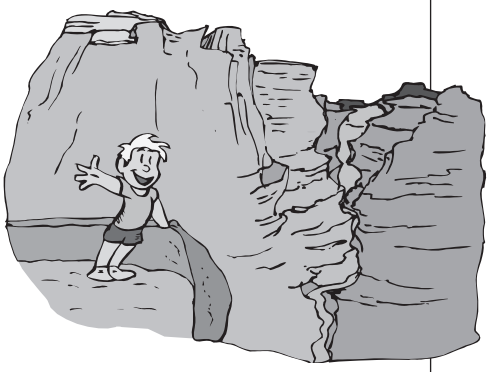
3. Have students take turns shaking the rocks a hundred times.

4. Distribute each pair a 12"x18" piece of white construction paper and a small magnifying glass.

5. After the hundredth shake, instruct students to carefully open the lid of the container and pour its contents onto the white paper. Examine with magnifying glass.

6. Ask students to share any new insights into what the large rock and the soil have in common.

7. Guide students in recognizing that the rocks inside the container rubbed against each other during the shaking and made smaller pieces of rock. Soil



is actually small pieces of rock mixed with decaying leaves and other living things. Explain that smaller rocks come from the breaking and weathering of larger ones.

8. Elicit ideas as to the definition of *weathering* and share if necessary. Discuss the idea that the physical weathering of rocks by the action of moving water is an important process. It shapes the landscape, forming features as impressive as the Grand Canyon and, more importantly, helps form some of the richest soils available for agriculture. This physical weathering is accomplished by the abrasion of rock against rock and sand against rock, powered by the force of moving water.

9. Have student pairs brainstorm ideas about forces that could cause rocks to weather. Share.

10. Give each pair of students a baking pan with sand. Allow each group to make a mountain of sand adding details to their creations with twigs and small rocks.

11. Explain that when plates collide the crust folds into high mountain ridges.

12. Once their creations are complete, give each student a straw and have them blow through the straw to see what effect "wind" has on their mountain.

13. Discuss how wind erodes the land the same way.

14. Next use a watering can with a sprinkling head and have students sprinkle water on the mountain. Have them observe the changes and discuss what they are.

15. Tell students that rain affects the world in the same way. Discuss the fact that wind and rain erode the earth in the same way that they have eroded their sand mountain.

16. Share the idea that many of these particles will be washed downstream and will settle at the bottom of lakes, river, and ocean. After many years have passed and layers have been added on top of each other, the layers at

the bottom will slowly begin changing into rock because of the weight and pressure on top of them.

Products and Assignments

- Map of world in 100 million years
- Explanation paragraph of reasoning
- Apple model of earth's layers
- Weathering activity
- Erosion activity

Extension Activities

1. AID/Math Connection: Have students compute how many miles would a plate travel in 100 million years at a rate of 1 inch per year? (Hint: Divide 100,000,000 inches by 12 inches per foot and then divide that answer by 5,280 feet in a mile.) Answer: 1,578 miles
2. Research and describe how the earth's layers were formed.

Post Assessment

N/A

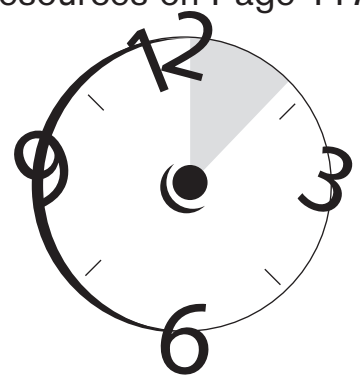
Debriefing and Reflection Opportunities (5- 10 minutes)

1. Revisit the guiding questions:
   - What are plate tectonics?
   - How is the earth's shape changed?
   - How do weathering and erosion affect our planet?
2. Allow time for students' comments and questions.

Geography and Population

Core/AID

Time Allocation: 2 hours, 15 minutes
(3-45 minute class periods)
Required Materials and Resources on Page 117



Module Overview

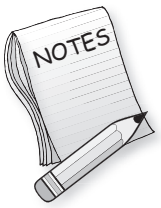
During these lessons students will learn how population and geography are connected. Students will demonstrate an understanding of people's interaction with their environment as seen through human distribution, and in the effect that climate and landforms have on people's living situations.

Guiding Questions

- What factors cause large populations in some parts of the world?
- Why do some areas in the world have larger populations?
- How does the climate and physical terrain affect where people live?
- How does the geography of a place satisfy the needs of the people from that place?

BIG IDEA

People's Interaction with Their Environment



Content Goals

Universal Theme

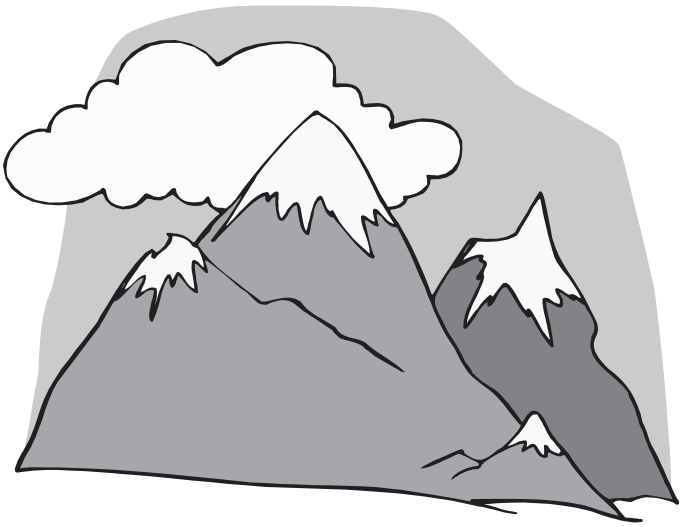
- Needs
- Effects of human impact

Principles and Generalizations

- Population affects our geography.
- Climate and landforms affect where people live.
- Some places have higher populations.
- Places in the world have different climates and landforms.
- Climate is the prevailing weather conditions of a region averaged over years.
- Landforms are any of the number of natural features on the earth's surface, including mountains, plains, plateaus, hills, cliffs, etc.

Concepts

- Population
- Population density
- Populous
- Demography
- Increase and decrease
- Life expectancy
- Immigration
- Migration
- Rural
- Urban
- Movement
- Nuclear Family
- Extended Family
- Culture
- Climate
- Topography



Teacher Information

N/A

Skills

- Read
- Infer
- Analyze data
- Summarize
- Make connections

Materials and Resources

Lesson 1

1. United States population statistics from 1900 to present from several different cities -- printed copies for each group of students
2. Maps of the United States for each group of 4-5 students
3. Graph paper or computer access to a graphing program
4. Non-fiction books or magazines about chosen cities
5. Samples and directions for travel brochures (for extension project or homework)
6. Paper and markers
7. Index cards

Lesson 2

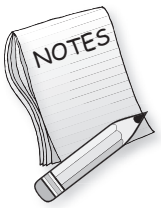
1. Several copies of the following book: *Everybody Cooks Rice* by Norah Dooley, Carolrhoda Books, 1992. (ISBN#0876145918)
2. World Maps for each group of students
3. Rice
4. Climate maps for each group of students
5. **Worksheets A and B *Everybody Cooks Rice***

Lesson 3

1. Prepared worksheet with the longitude and latitude of the hypothetical place in the **Stranded Directions**
2. Worksheet, **Stranded Directions**
3. World maps
4. Paper and markers

Preparation Activities

1. Divide students into flexible groups based on gender and mixed skill levels.
2. Place Guiding Questions on the board for each lesson



Lesson 1

1. Prepare index cards with several cities in America. (Dallas, New York, Denver, New Haven, Atlanta) These cities should correlate with the copies of population statistics sheets. You will need as many or as few cities as groups of students.
2. Post Guiding Questions:
   - What factors cause large populations in some parts of the world?
   - Why do some areas in the world have larger populations?

Lesson 2

1. Distribute small bags of rice for each group
2. Gather copies of *Everybody Cooks Rice* and climate maps of cities mentioned in book for each group
3. Post Guiding Question:
   - How do climate and terrain affect where people live?

Lesson 3

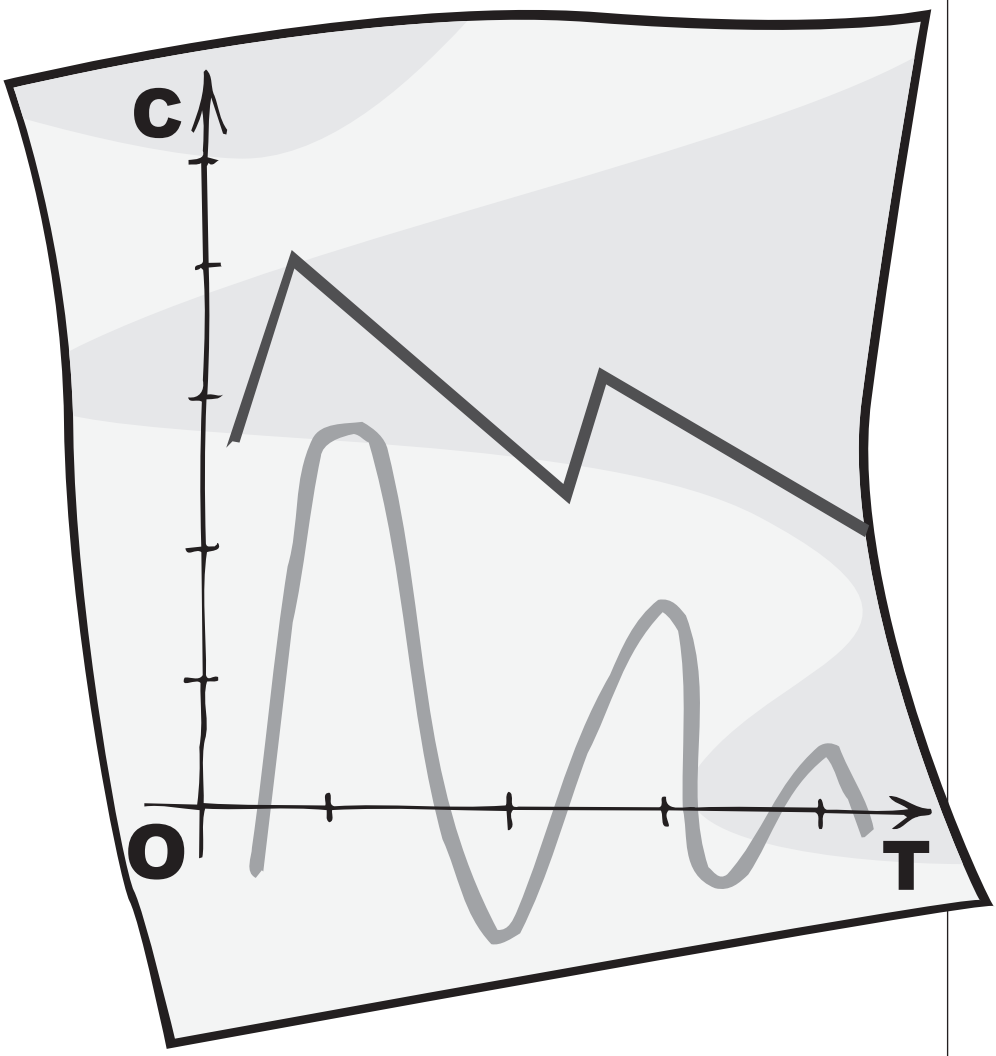
1. Prepare latitude and longitude worksheet. Each group will need one.
2. Post Guiding Question:
   - How does the geography of a place satisfy the needs of the people?

Introductory Activities (5 minutes)

- Bring the entire class together. Ask students how many of them have ever moved. Discuss with a few why they think their parents moved. Record answers on the board.
- Explain to the students that they will be working in groups of 4-5 students for the next few lessons. Tell them that they will be looking at the United States census figures for a particular city.

Pre-assessment (5 minutes)

In their small groups ask the students to generate a list of at least five factors that cause large populations in some parts of the world. Collect and save until the students have finished this section of the geography unit.



Teaching and Learning Activities (30 minutes)

Lesson 1

1. Assign each group a city. Decide to either distribute United States Census for that city or have the students research this data for their particular city.

2. Distribute United States map and graph paper.

3. Have students analyze their data.

4. Have students decide what type of graph to create with their data. (A bar graph or a line graph work well.)

5. Have student's notice where on the map their city is located.

6. Rotate through groups as they work on interpreting the data and creating the graphs.

7. Engage students in a conversation about their graphs.
   - What patterns did they notice in their graphs?
   - Which cities had the largest population?
   - How often did the population fluctuate?
   - Did the location of the city on the map influence the population size?
   - Were there particular landforms that might influence a person to live in this city?

Products and Assignments

Group graphs

Extension Activities

1. Have students research their city and see how it began. They could create a promotional brochure for their city, stressing the climate and the landforms.
2. Suggest that students reflect on how Cheshire's climate and landforms influence their lives. Or you might have them research how Cheshire began.
3. (AID) Invite students to work independently and collect the data for all the cities. Analyze it, graph it and write about how it might influence their choice of living places.

Post Assessment

Final project will be post assessment for this lesson.

Teaching and Learning Activities (45 minutes)

Lesson 2

1. Write Guiding Question on the board: How do climate and terrain affect where people live?

2. Bring the whole class together and read *Everyone Cooks Rice* by Norah Dooley.

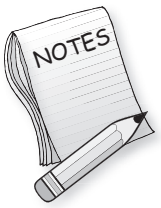
3. Explain worksheet A, making sure to explain key vocabulary words such as *natural resources* and *preparation*.

4. Divide students into groups and assign each group a different recipe from the book. Distribute copies of the book and worksheet A.

5. Circulate as groups work, encouraging students.

6. Share results of the worksheet as a class and engage students in a conversation about the recipes.
   - Where did the recipes come from?
   - Which recipes sounded interesting?
   - Why do people bring recipes with them when they move?
   - What family recipes are in your house?
   - Why are certain cultures known for certain recipes?
   - Why is there a "Little Italy" or a "China Town" in some cities?
   - What does it take to grow rice?

7. Distribute worksheet B. Have students fill it out in their groups. Then distribute maps of the world and small bags of rice. Have the students place a grain of rice on the map to locate the countries mentioned in the story. Engage the students in a conversation about the map and the guide question.
   - What pattern do you notice about the grains of rice?
   - Should people interested in growing rice live in certain areas?



- Does your profession affect where you live?
- Can rice grow in every location in the world?
- Can rice grow in Cheshire (substitute the name of your town)?

8. Distribute weather maps of given areas in the book. Have the students make generalizations regarding rainfall and climate and rice. (Rice needs a warm climate and lots of rain.)

9. Ask the students to look at the guiding question and make generalizations regarding the ways in which climate and terrain affect where people live, especially in regards to jobs.

Products and Assignments

- Worksheets- **Everybody Cooks Rice A & B**

Extension Activities

1. Have students to create a class cookbook.
2. Invite some recent immigrants to the class and have students interview them, asking questions that relate to this lesson.
3. Encourage students to try to grow some rice.

Post Assessment

Final project will be post assessment for this lesson.

Teaching and Learning Activities (40 minutes)

Lesson 3

1. Draw students' attention to the Guiding Question for this lesson: How does the geography of a place satisfy the needs of the people?

2. Have students fold a piece of paper into thirds. Label the first column **Hobbies**, the second column **Supplies**, the third column **Necessary Landforms**. Then have them list a few of their favorite outdoor activities, the supplies they need for them, and any necessary landforms. For example, snowboarding, outdoor clothing, the board and a mountain.

3. After a predetermined amount of time, have students share. Guide discussion in order for students to understand that where they live is

sometimes determined by climate and landforms. If you want to be a farmer, it's important to live in an area with fertile soil. Focus their attention on the guiding question and solicit answers.

4. Distribute **Stranded Directions** worksheet, prepared longitude and latitude sheets, maps, paper and markers. Walk around and engage students in activity. Students can work in pairs, groups or on their own depending on your class.

5. Decide how long you wish this activity to continue, at the appropriate time, share.

6. Collect the results of **Stranded Directions** worksheets as an assessment to this module.

Products and Assignments

Map created from worksheet **Stranded Directions**

Extension Activities

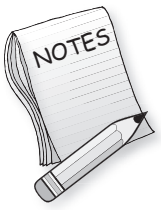
Have students do journal writing on what it feels like to be stranded.

Post Assessment

Maps created from worksheet **Stranded Directions**

Debriefing and Reflection Opportunities (10 minutes)

1. Revisit any Guiding Questions that seem to need more time and attention.
2. Allow time for comments and questions about the activities in the module.
3. Have students who decided to participate in the Extension Activities share them with the class.



Name_____

***EVERYBODY COOKS RICE* by NORAH DOOLEY – WORKSHEET A**

Recipe_____ Country _____

DIRECTIONS: Read your group's recipe. Write down the ingredients used in the recipe. Decide if the ingredient is a natural resource or a manufactured product. Then describe how it was created. Example: Ingredient – Milk – Although milk comes from cows and would be considered a natural product, it also needs to be pasteurized and therefore is also a manufactured product.

INGREDIENTS	NATURAL RESOURCES OR MANUFACTURED PRODUCT	PREPARATION

Name_____

***EVERYBODY COOKS RICE* by NORAH DOOLEY – WORKSHEET B**

Family	Country Name	Food Cooked	Customs	Personal Connection

STRANDED DIRECTIONS

Names _____

You and 50 other people are stranded at the given longitude and latitude. You have enough food and water to survive for some time. You are all well; no one was hurt. This area is completely uninhabited. No ships or planes pass this place. The transportation, which brought you here, is wrecked and sunk in very deep water. Nobody knows where you are. If you traveled by air, all communication was lost. Your radio and cell communication went out when you were 1,000 miles away from your departure point. There are no stores; however, you have tools to create things you might need. Your job is to **locate** where you are on the given map, and create a functioning community. You need to learn to adapt to your new environment. **You must create a scaled map**, showing where you put your homes, where you would decide to plant your fields. Do you all plan to live near one another? What is the climate like in this area? Do you need to adapt to this climate? What landforms are in this area? Will these landforms alter your community's plans?

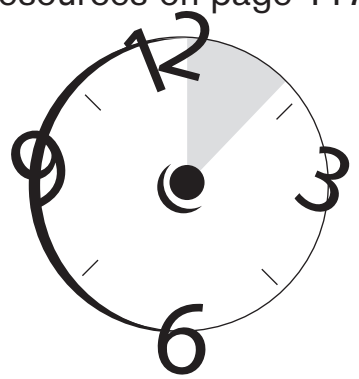
Materials

Stranded Directions worksheet
Map or atlas
Drawing paper or graph paper
Pencils and markers

Geography and Politics and the Economy

Core

Time Allocation: 2 hours, 15 minutes
(3-45 minute class periods)
Required Materials and Resources on page 117



Module Overview

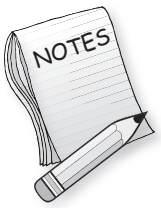
During these lessons students will learn how the economy and politics are linked to geography. Students will demonstrate an understanding of human interaction and movement seen through economics and politics and their effect on humans' living situations and therefore the geography of the world.

Guiding Questions

- Why does culture change?
- How does culture change?
- How does culture affect our geography?
- How do people determine what their homes should look like?
- How does geography affect where and how people live?
- What is a government?
- Why do we need a government?
- How does government affect our lives?

BIG IDEA

How Economy and Politics Are Linked to Geography



Content Goals

Universal Theme

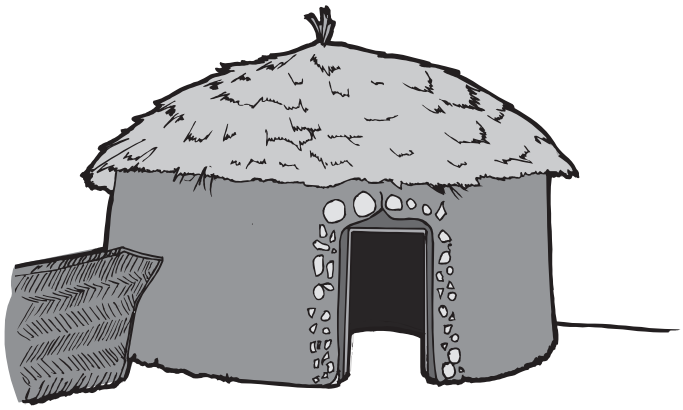
Adaptation

Principles and Generalizations

- Given the right to choose, people choose to live in places that are similar to their economic and political status.
- Over time cultures change for many different reasons (e.g. population growth, human interaction with the terrain).
- Cultures affect their environment, and environment affects the cultures.
- Traditions, stories, religion, and language are important to cultures.
- Societies have political and economic structures.

Concepts

- Government
- Economy
- Consumer
- Capitalism
- Democracy
- Communism
- Farming
- Services
- Schools
- Producer
- Population density
- Technological changes



Skills

- Read
- Compare and contrast
- Reason deductively

Materials and Resources

Lesson 1

1. Pictures of different styles of houses and homes (mansions, huts, houses on stilts etc.)

2. Copy of book: *Houses and Homes* by Ann Morris, HarperTrophy (1995). (ISBN#0688135781)
3. Drawing paper and markers

Lesson 2

1. Non-fiction books on different political systems (communism, democracy, dictatorship, monarchy, socialism etc.)
2. Index cards with numbers on them

Lesson 3

1. Directions to **Stranded Directions – Part 2**
2. Non-fiction books on different political systems

Preparation Activities

Lesson 1

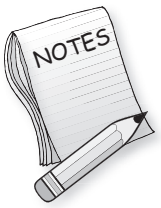
1. Post Guiding Questions on the board:
   • How do people determine what their homes should look like?
   • How does geography affect where and how people live?
2. Gather pictures of many different houses.

Lesson 2

1. Post Guiding Questions on the board:
   • What is a government?
   • Why do we need a government?
2. Gather non-fiction books on different political systems or arrange access to the Internet.
3. Prepare index cards with numbers on them. Number the cards according to how many political systems you wish your students to learn. (Four different political systems- number cards 1-4) There should be one card per student.

Lesson 3

1. Post the Guiding Question on the board:
   • How does government affect our lives?
2. Copy worksheet **Stranded Directions – Part 2** for each student.
3. Gather non-fiction books on different political systems or arrange access to the Internet.



Introductory Activity (5 Minutes)

Bring class together and have the students discuss the first guiding question among themselves. (How do people determine what their homes should look like?) Share and record their answers to this question. (They should respond with some of the following answers: materials, beauty, usage, traditions, status, and money.)

Pre-assessment (5 Minutes)

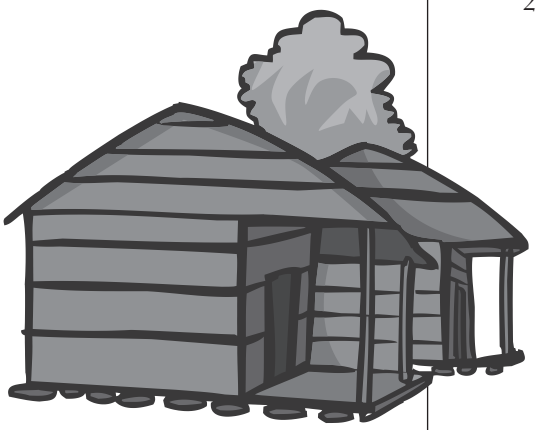
Have the students work individually to draw their ideal home. Collect and save until the students have finished this section of the geography unit. Discuss their pictures. What resources did they use? How did these homes meet their needs? Where in the world are these homes located? Does the location of these homes matter?

Teaching and Learning Activities (35 minutes)

Lesson 1

1. Distribute several pictures of different types of homes to either teacher selected groups, tables, or pairs of students. Have at least fifteen pictures for each group. Ask the students to look at the pictures. Have the students put the pictures into categories. You might want to suggest putting the homes into categories by answering the following questions: What can you tell about the climate of the country where this person built this house? What natural resources did the person use? What country do you think this house belongs in? What does this tell you about the economic status of the person?

2. Share results of above activity. The students should notice that some houses are suited for different environments and that some houses are bigger. Hold up two pictures of houses that are very different and ask if these would end up next to each other? Lead discussion towards how economics (money, status) often affects where we live. (Example: Newport, Rhode Island mansions were inhabited by the wealthier people of the time who ended up living near one another, with a view of the ocean, versus New York City railroad flats. Poorer people ended up living by the noise of the trains in tenements.) Students should be able to make generalizations about how often people with the same economic background end up living together and how this might affect the population of an area. (e.g. parts of Florida)



3. Read *Houses and Homes* by Ann Morris. Stop and discuss how builders took advantage of different resources. Can you tell the financial status of the people who live in these houses? Could a government determine what an individual's home might look like?

4. Have students write in their journals/social studies section of their notebooks answering the following question: In what ways does economics determine where people live?

Products and Assignments

Journal entry

Extension Activities

Suggest that students revisit their ideal homes pictures under specific longitude and latitude or financial restraints.

Post Assessment

See final project.

Teaching and Learning Activities (45 minutes)

Lesson 2

1. Tell the students that today the class is going to study government. Then sit down in front of them and say nothing for 8-10 minutes. Watch what will happen. Most students will get restless and talk to their neighbor. Before chaos begins, ask the students to reflect on what just happened. Guide the students to notice that the class for those minutes had no direction, no mission, and no leader. Then ask why they think governments are necessary? Explain that classrooms, like societies, need rules and a form of structure and "government."

2. Break students up into the number of predetermined groups you have chosen. (You will have as many groups as the number of different political systems you will be exploring.) Give each student a different number. Tell them that number is for a jigsaw activity they will be doing soon. Distribute non-fiction books about different political systems. (Use the Internet if available.) Each group is to read about their assigned political system and become experts about this political system.

3. After a determined amount of time, engage students in the jigsaw activity. The jigsaw activity requires all of the students with the same numbers to get together. (All the 1's now become a group.) In this new group there should be a representative from each different political system. The students in this new group should be able to share with their new groups the facts about the political systems they were just learning about.

4. After a determined amount of time, have students write in their social studies journal/section in their notebooks about which political system they think seems the most ethical.

Products and Assignments

Journal entry

Extension Activities

1. Have students create a Venn diagram between two political systems.
2. Invite students to look at the map and see where in the world different political systems are located. Have them determine if there are any patterns?

Post Assessment

See final project.

Teaching and Learning Activities (40 minutes)

Lesson 3

1. Discuss the following guiding question: "How does government affect our lives?" Remind them of the last lesson.

2. Distribute the worksheets **Stranded Directions – Part 2** to each student.

3. Divide students into groups.

4. After a determined amount of time, bring students back together and reflect on the outcome of the **Stranded Directions** game.

Products and Assignments

Results of **Stranded Directions – Part 2** game

Extension Activities

Explore the following questions with your students following the Stranded Directions – Part 2 game:

- Who made the most suggestions during the game?
- Who made the most reasonable suggestions during the game?
- How was the first decision made?

Post Assessment

See final project.

Debriefing and Reflection Opportunities (5 minutes)

1. Revisit any Guiding Questions that need more time or attention
2. Have students who participated in Extension Activities share them with the class.

STRANDED DIRECTIONS- PART 2

Names_____

Your group has landed on an island. This island is five miles long and three miles wide. It is located in the middle of an ocean. This island is not located on any map known to humankind. The highest point on the island is a hill, elevation 250 feet high. There is a fresh water spring and most of the island is covered with vegetation.

The transportation that brought you here is no longer available. If you came by boat, it has sunk; and if you traveled by plane, it has been destroyed. Your radio and any means of communication with others have also been destroyed.

You must complete parts A and B as a group, and part C individually. Be prepared to share.

A) Discuss your situation and answer the following questions in writing:

1. Do you know if there is anyone else on the island?
2. How will you get this information?
3. What will you do if there are other people on the island?
4. Do you need protection? If so what does this mean?
5. What do you need?
6. Who will be your leader?
7. What kind of qualities should your leader have?
8. How will you decide who your leader should be?
9. What will the rest of you be doing? Will you have jobs/titles?
10. Do you need to create a set of rules? What will these rules look like?

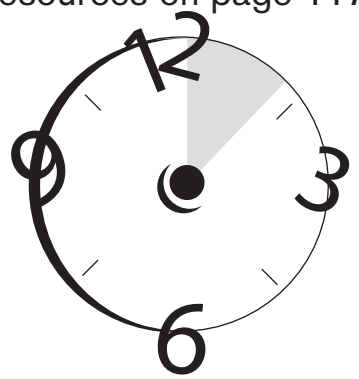
B) Create a schedule of activities for the first 24 hours.

C) In your journal/social studies section of your notebook, individually write at least ten sentences about the following question: How did your being stranded on an island affect the creation of a government?

Geography and Renewable and Non-renewable Resources

Core

Time Allocation: 1 hour, 30 minutes
(2-45 minute class periods)
Required Materials and Resources on page 117



Module Overview

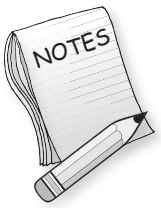
Students will learn the difference between renewable and non-renewable resources and products. They will make connections between these resources and pollution, animal endangerment, raw materials and manufactured goods. Students will realize that that everything that we use is connected to the earth.

Guiding Questions

- What are renewable and non-renewable resources?
- What is energy?
- How can we protect energy?
- How is geography affected by renewable and non-renewable sources?
- Are non-renewable and renewable resources found in all regions of the world?

BIG IDEA

Effect of Human Impact on Renewable and Non-renewable Resources



Content Goals

Universal Themes

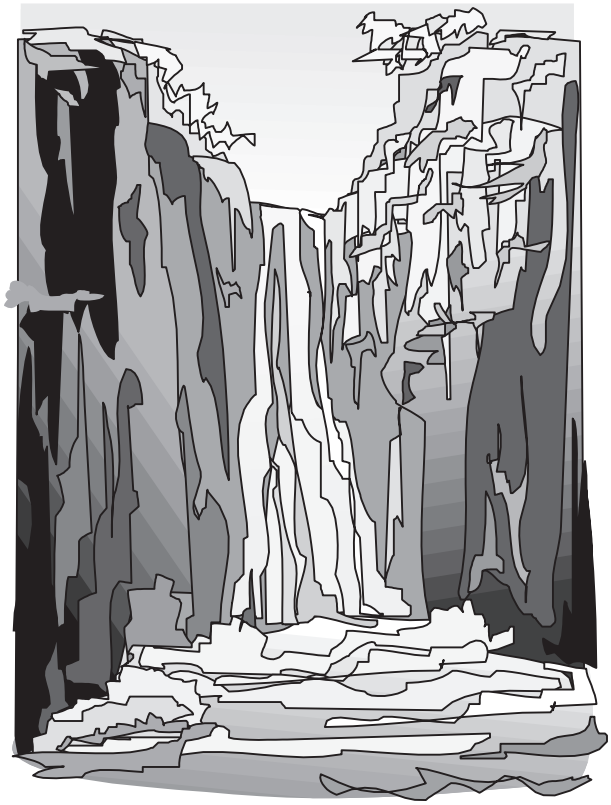
- Effect of human impact
- Cause and effect

Principles and Generalizations

- The earth has renewable and non-renewable resources.
- Raw materials are the natural resources used to make products.
- Manufacturing means making new products from raw materials and recyclable materials.
- Fossil fuels include coal, oil and natural gas, formed from the remains of living things.
- Renewable resources are natural products that the environment continues to replace. Examples are water and plants.
- Non-renewable resources are resources that cannot be replaced once they have been used. Examples are fossil fuels.

Concepts

- Renewable resources
- Non-renewable resources
- Energy
- Recyclable
- Fossil fuel
- Raw materials
- Natural resources
- Digging
- Manufacturing
- Endangerment
- Global warming
- Population control
- Pollution



Skills

- Reason deductively

- Understand cause and effect
- See relationships
- Solve problems

Materials and Resources

Lesson 1

1. Pictures of objects made from various materials glued to index cards
2. Blank index cards
3. Markers
4. Lined paper and pencils

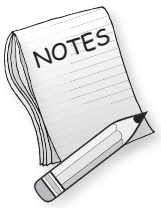
Lesson 2

1. Square piece of paper for each student.
2. Thumbtack for each student
3. Straw or a wooden stick for each student
4. Scissors and rulers for each student
5. List of addresses for organizations and/or state representatives for student letters

Preparation Activities

Lesson 1

1. Post Guiding questions on the board:
   - What are non-renewable and renewable resources?
   - How is geography affected by renewable and non-renewable resources?
   - Are non-renewable and renewable resources found in all regions of the world?
2. Prepare cards by gluing pictures of objects made from various materials onto index cards. You will need enough cards for each pair of students to have at least 15 cards. Answers, which are covered by tape, should be written on the back of card and reveal whether or not the pictured objects are renewable or non-renewable. For example, on the front of the card could be a picture of a leather purse. On the back of the card, covered by masking tape or a piece of paper would be the answer (animal) and the words "renewable resource." Other possible card ideas are string, soap, and plastic utensils.



Lesson 2

1. Post Guiding questions on the board:
   - What is energy?
   - How can we protect it?
2. Gather a square piece of paper, a thumbtack, and a straw for each student.
3. Prepare list of addresses of organizations and/or state representatives for student letters.

Introductory Activity (5 Minutes)

Bring class together and invite the students to discuss the first guiding question (What are non-renewable and renewable resources?) from Lesson One among themselves. Share their answers to this question.

Pre-assessment (5 minutes)

Have the students take out a piece of lined paper. Fold the paper in half and label one side non-renewable resources and the other side renewable resources. Direct students to write down several examples of each source. After a few minutes, ask them to share their answers. Collect and save papers until the students have finished this section of the geography unit.

Teaching and Learning Activities (35 minutes)

1. Divide students into pairs. Explain that they are going to a version of the animal, vegetable or mineral game. In this game the object is to determine what different objects are made from.

2. Have students determine who will go first and explain the winner is the person who has the most cards at the end of the game.

3. Distribute the index cards with the picture side down.

4. Player A picks a card and shows Player B the picture side. Player B has one chance to say Animal, Mineral or Vegetable, Renewable Resource or Non-renewable Resource. If player B gets the correct answers, he/she gets to keep the card. If not, the card goes to the end of the pile. The player MUST get both parts of the question correct in order to get to keep the index card.

5. Player B picks a card for player A. Player A gets one guess. Continue playing until all the cards are used.

6. After playing the game, give each student five blank index cards. Explain that students will now create their own cards. Instruct them to draw a picture of a product on one side of the card, and then write the answers on the other side. Invite them to challenge each other with their own cards.

7. Conclude by asking students to write in journals or the social studies section of their notebooks the answer to the second guiding question to this lesson. (How is geography affected by renewable and non-renewable resources?)

Products and Assignments

- Individual cards
- Journal entry

Extension Activities

- Have students create a progress map of a product. For example: How is applesauce manufactured?
- Discuss with students what happens if we are not responsible citizens and do not recycle or reuse items.

Post Assessment

See final project.

Teaching and Learning Activities (35 minutes)

Lesson 2

1. Bring class together and generate a list of places where we use energy (factories, homes, cars, schools etc.). Then create a list of what types of energy we use (gas, electric, wind, solar, etc.). Ask students which of these energies are renewable? What does it mean to our environment to be non-renewable? What are people trying to do to look for other means of energy? What will happen if we don't have energy? How does human consumption of energy affect geography? (mining, rain forest deforestation) How does human consumption of energy affect animal life?

2. Tell students that today they are going to make a means of energy, a windmill, which could harness the power of the wind. Ask if any of they have every seen a windmill.

3. Give the students the supplies: a square piece of paper, a thumbtack and a straw. Demonstrate how to make a windmill as they are making their windmills.

4. Mark the center of the square piece of paper. Draw lines from each corner, almost to the center. Carefully cut along the lines. *Do not cut all the way to the opposite corner or to the middle.*

5. Fold each corner to the center. You should have something that looks like a flower. Push the thumbtack into the middle of the flower.

6. Push the pin into the straw or wooden stick. Make sure the point of the pin does not stick out. Now blow at your windmill and watch it spin around. If you can, take the windmills outside and watch them catch the wind.

7. Conclude the lesson by having students write letters to energy organizations or state representatives about ways to converse energy and protect our environment.

Products and Assignments

- Pinwheels
- Student letters

Extension Activities

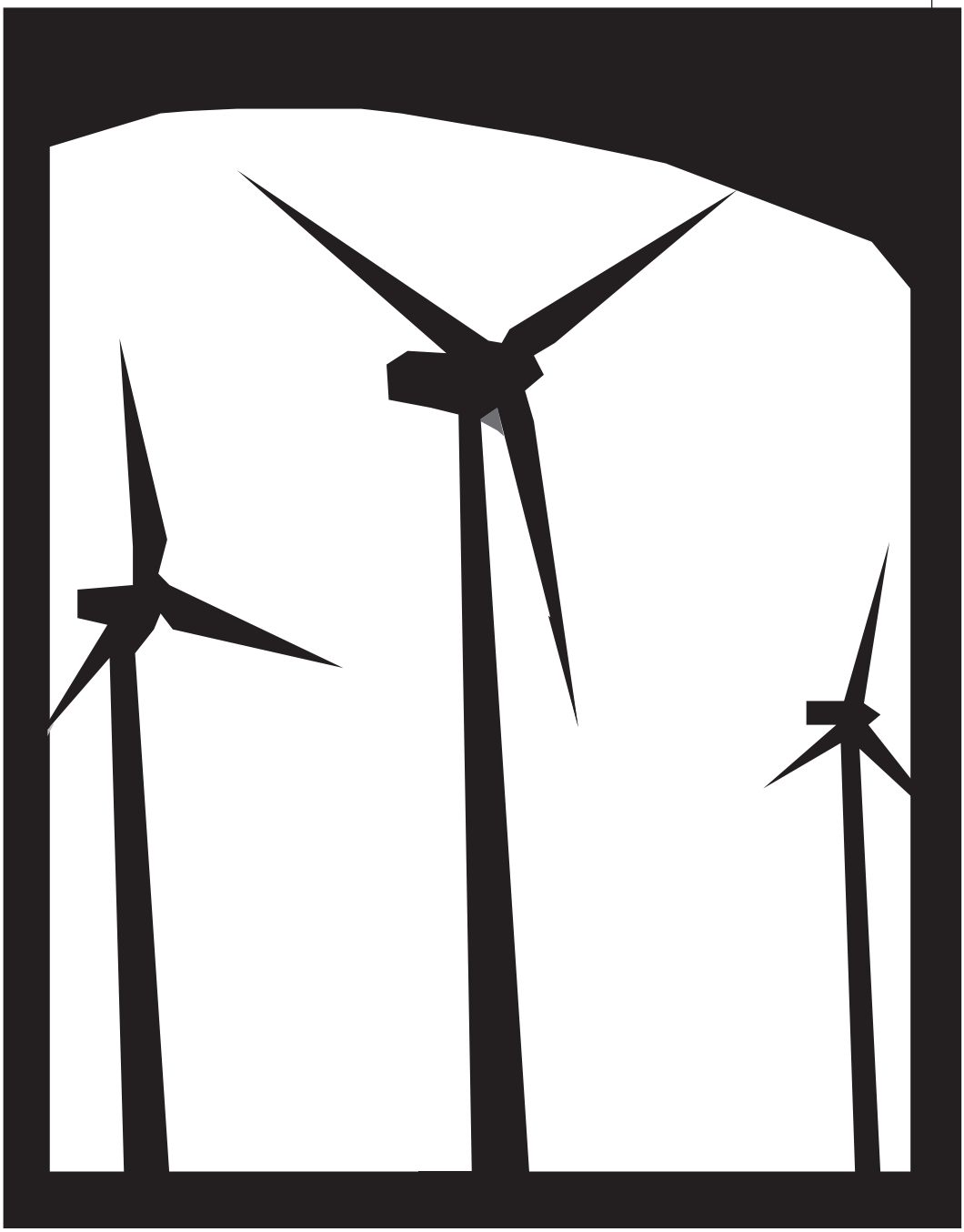
1. Invite students to create a schedule showing they use energy every day, so they can see how they could conserve.
2. Have students create posters for the school that feature recycling, reusing and conserving resources.

Post Assessment

See final project.

Debriefing and Reflection Opportunities (5 - 10 minutes)

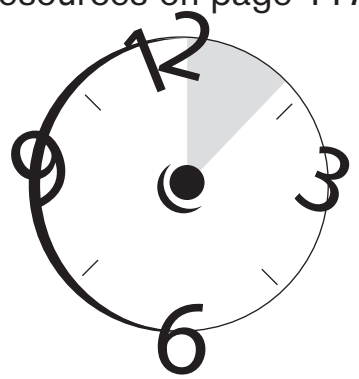
1. Review any Guiding Questions that need more discussion.
2. Invite students who participated in Extension Activities to share them with the class.



Create a Country

Core/Connections

Time Allocation: 3 hours, 45 minutes
(5-45 minute class periods)
Required Materials and Resources on page 117



Module Overview

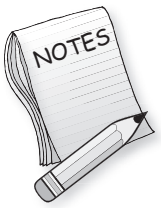
In this final project students will use the concepts and skills from the unit to create a booklet which describes a hypothetical country. The project will involve their computer skills, writing skills, visual arts skills, as well as their geography and social studies skills.

Guiding Questions

- How do I create a country with a geographic location, climate, and natural resources that are reflected in the country's history, culture, population density, government, and manufactured products?

BIG IDEA

Creating a Country that Reflects Unit's Skills and Concepts



Content Goals

Universal Themes

- Effect of human impact
- Location
- Climate
- Needs
- Adaptation

Principles and Generalizations

- Climate and landform affect where people live.
- Climate is the prevailing weather conditions of a region averaged over years.
- Given the right to choose, people choose to live in places that are similar to their economic and political status.
- Cultures affect their environment, and environment affects the cultures.
- Traditions, stories, religion, and language are important to cultures.
- Societies have political and economic structures.
- Raw materials are the natural resources used to make products.
- Manufacturing means making new products from raw materials and recyclable materials.

Concepts

- Maps
- Scale
- Absolute location
- Legend
- Climate
- Population
- Population density
- Immigration
- Culture
- Topography
- Government
- Economy

Create a Country

- Renewable resources
- Non-renewable resources
- Energy
- Raw materials
- Natural resources
- Manufacturing
- Population control
- Pollution

Skills

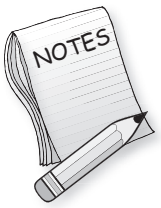
- Develop hypothesis
- Reason deductively
- Analyze
- Understand cause and effect
- See relationships
- Make connections
- Solve problems

Materials and Resources

1. Access to computers
2. Library access or a collection of non-fiction books on unit concepts
3. World map
4. Paper for written sections of booklet
5. Drawing paper for map, flag, and money
6. Colored paper
7. Graph paper
8. Markers, crayons, colored pencils
9. Scissors
10. Glue
11. Rulers
12. Tape

Preparation Activities

1. Post large world map or provide small maps for each student.
2. Gather writing and drawing materials for students.



Introductory Activity (10 Minutes)

Bring class together and distribute directions for the final project, creating a hypothetical country. Review all of the instructions with students. Give them the opportunity to ask any questions and assure them that you will be available for them while they are working on the project.

Pre-assessment

N/A

Teaching and Learning Activities (225 minutes, 5 days)

Day 1

1. Give students the time to research a section of the world where they wish to locate their country. Give scaffolding where needed.

2. Provide computer access.

Days 2-5

1. Distribute grading rubric for the **Create a Country** project. Review guidelines with students.

2. Give students time to research, write, and draw their project. Provide scaffolding where needed

Products and Assignments

Create a Country booklets

Extension Activities

N/A

Post Assessment

Create a Country booklets

Debriefing and Reflection Opportunities (5 - 10 minutes)

Invite students to share a section of their **Create a Country** booklet.

Create a Country – Final Project

Name_____

Your Task: You are creating a country. Your project will be presented in a booklet form and include the following:

Page 1: Cover Page
Page 2: A map of your country
Page 3: A flag of your country
Page 4: Money from your country
Page 5: A population density map that you have created and a graph (a bar graph done on Excel) that you have also created
Page 6: A culture page can include a recipe from your country, clothing design, and house designs.
Page 7: A history of your country that you have written
Consider these questions: Who is the ruler? What are the rules of this country?
Page 8: A natural resource page
Consider these questions: What types of animals are found in your country? What types of plants are in your country? Does your country have pollution? What type of products does your country manufacture?

PAGE 1 - Typed
Your cover page includes:

1) The name of your country
2) Your name

PAGE 2
Drawing:

1) A physical map of your country, including landmarks such as ponds and mountains. Points to consider: How large is your country? What are the boundaries of your country?
2) Include a compass rose on your map.
3) Draw your map to scale.
4) Make sure your map has a legend.
5) Use absolute location

Written part of page 2:

1) Describe the climate of your country.
2) List the name of the capital city and at least **FIVE** other important cities in your country.

PAGE 3

Drawing:

1) Draw a picture of your country's flag. Does your flag have any symbols on it?
2) What colors are on your flag?

Written part of page 3:

1) What do the symbols on your flag mean?
2) As an example: the American Flag has thirteen stripes; each stripe represents one of the original thirteen colonies. The stars on the flag represent the number of states in America. The red in the American flag symbolizes bravery and the white purity.

PAGE 4

Drawing:

1) Draw the different types of money your country has.

Written part of page 4:

What is your money called? What values does your money have? How did you decide what values your money has?

PAGE 5

Using the computer program *Excel*, create a population graph for your country for a ten year period. Consider the birth rate, the death rate and life expectancy of your country. Is your population growing or declining? Does your country have an industry that requires many workers? **Your country must start with at least 10,000 people.**

Think about who lives in your country. Are they indigenous people who have been there all along, or are you a nation of immigrants? If your country is full of immigrants, why are they in your country and where did they come from?

Also, draw a population density map.

PAGE 6:
Think about your country. Is your country a developed country with modern technological advances, or a developing country which relies on agriculture? How is the typical family defined? What is the language of your country? What role does religion play? How is the government set up? Who makes the laws?

Using the answers to these questions: **You need to create a recipe or a traditional event** from your country. This must be done seriously! (No *Fear Factor* or gross type of food or traditions)

PAGE 7:
Think about your country. Think about all the pages pervious to this one and write your country's history. Who decides who the ruler is? Is there a king, a queen or a president? What kind of laws are there in your country? Does your country have a constitution? Create a timeline.

PAGE 8:
What are the natural resources found in your country? Create a chart that lists at least four natural resources in the following categories: animals, minerals, plant life, and fossil fuels.

Then write about two laws that your country has written to protect the environment. Explain whether these laws will help to improve the environment or just help vested individuals.

Create a natural resource map. Remember a natural resource map needs a legend!

Remember to use a ruler when needed. Remember to draw neatly and **TO TYPE ALL NECESSARY WRITTEN PARTS!!!!**

HAVE FUN!!

Create a Country Rubric:
Student's Name _____

Page 1 Cover

Category	4	3	2	1	0
Timeliness	On time	Late- One day	Late - 2 days	Late – many days (2+)	Not handed in
Creativity	It contains many creative ideas.	It contains a few creative ideas.	It is distracting and confusing, but some effort is shown.	It has very little evidence of creativity.	N/A
Mechanics	Capitalization, spelling and grammar are perfect.	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A

Page 2 The Map of Your Country

Category	4	3	2	1	0
Compass Rose	Element is included perfectly.	There is 1 mistake in it.	There are 2 mistakes on it.	There are more than 2 mistakes.	Element is not there at all.
Scale	Element is included perfectly.	There is 1 mistake.	There are 2 mistakes.	There are more than 2 mistakes.	Scale is not there at all.
Absolute Location	Element is included perfectly.	There is 1 mistake in it.	There are 2 mistakes in it.	There are more than 2 mistakes.	It is not there at all.
Legend	Element is included perfectly.	There is 1 mistake in it.	There are 2 mistakes in it.	There are more than 2 mistakes.	It is not there at all.
Written description	It contains many creativity ideas.	It contains a few creative ideas.	It is distracting and confusing, but some effort is shown.	Very little evidence of creativity is shown.	N/A
Mechanics	Capitalization, spelling and grammar are perfect.	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A

Page 3 – The Flag

Category	4	3	2	1	0
Creativity	It contains many creative ideas.	It contains a few creative ideas.	It is distracting and confusing, but some effort is shown.	There is very little evidence of creativity.	N/A
Mechanics	Capitalization, spelling and grammar are perfect.	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A
Explanation Of flag	Excellent	Good	Fair	Poor	Left out

Page 4 – The Money

Category	4	3	2	1	0
Creativity	It contains many creative ideas.	It contains a few creative ideas.	It is distracting and confusing, but some effort is shown.	There is very little evidence of creativity.	N/A
Mechanics	Capitalization, spelling and grammar are perfect	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A
Explanation Of money	Excellent	Good	Fair	Poor	Left out

Page 5 – Graphs

Category	4	3	2	1	0
Mechanics	Capitalization, spelling and grammar are perfect.	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A
Excel Graph	Element is included perfectly.	There is 1 mistake in it.	There are 2 errors in it.	There are more than 2 errors.	Not there at all
Population Density Map	Element is included perfectly.	There is 1 mistake in it.	There are 2 errors in it.	There are more than 2 errors.	Not there at all

Page 6 – The Culture Page

Category	4	3	2	1	0
Creativity	It contains many creative ideas.	It contains a few creative ideas.	It is distracting and confusing, but some effort is shown.	There is very little evidence of creativity.	N/A
Mechanics	Capitalization, spelling and grammar are perfect.	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A
Explanation Of Culture	Excellent	Good	Fair	Poor	Left out

Page 7 – History Page

Category	4	3	2	1	0
Creativity	It contains many creative ideas.	It contains a few creative ideas.	It is distracting and confusing, but some effort is shown.	There is very little evidence of creativity.	N/A
Mechanics	Capitalization, spelling and grammar are perfect.	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A
Explanation Of History	Excellent	Good	Fair	Poor	Left out

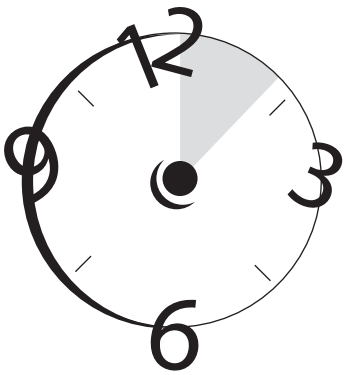
Page 8 – Natural Resource Page

Category	4	3	2	1	0
Creativity	It contains many creative ideas.	It contains a few creative ideas.	It is distracting and confusing, but some effort is shown.	There is very little evidence of creativity.	N/A
Mechanics	Capitalization, spelling and grammar are perfect.	There is 1 error.	There are 2 errors.	There are more than 2 errors.	N/A
Explanation Of Laws	Excellent	Good	Fair	Poor	Left out
Chart	Element is included perfectly.	There is 1 mistake in it.	There are 2 mistakes in it.	There are more than 2 mistakes.	Not there at all

Post Assessment

Core

Time Allocation: 45 minutes
Required Materials and Resources on page 117



Lesson Overview

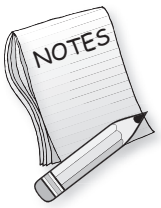
Students take the unit post assessment for the entire class time today.

Guiding Questions

- What do I know about the different aspects of geography?
- What do I know about different types of maps and the information they give us?
- What do I know about the earth's topography and how and why it has changed?
- What do I know about how climate and physical terrain affect people?
- What do I know about culture?
- What do I know about renewable and non-renewable resources?

BIG IDEA

What Did I Learn About Geography and All of its Effects?



Content Goals

Universal Themes

- Place
- Location
- Climate
- Change
- Needs
- Effects of human impact
- Adaptation

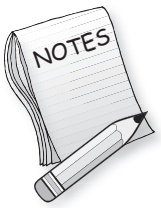
Principles and Generalizations

- Geography is the study of the earth's surface, climate, continents, countries, peoples, industries, and projects.
- The earth's surface is composed of physical features (location, place, regions).
- The earth's surface is composed of humans who affect the environment.
- Maps can provide both accurate and inaccurate information.
- The earth's climate depends upon its movement in space.
- The natural and cultural features of the earth are affected by its rotation and revolution.
- Geographers study plate tectonics.
- Climate and landforms affect where people live.
- Climate is the prevailing weather conditions of a region averaged over years.
- Landforms are any of the number of natural features on the earth's surface, including mountains, plains, plateaus, hills, cliffs, etc.
- Given the right to choose people choose to live in places that are similar to their economic and political status.
- Over time cultures change for many different reasons (e.g., population growth, human interaction with the terrain).
- Societies have political and economic structures.
- The earth has renewable and non-renewable resources.
- Renewable resources are natural products that the environment continues to replace. Examples are water and plants.
- Non-renewable resources are resources that cannot be replaced once they have been used. Examples are fossil fuels.

Post Assessment

Concepts

- Geography
- Location
- Place
- Human-environment interaction
- Maps
- Longitude
- Latitude
- Parallels
- Degrees
- Equator
- Meridians
- Scale
- Distortion
- Topography
- Orbit
- Axis
- Rate
- Revolve
- Seasons
- Tilt
- Climate
- Plates
- Erosion
- Weathering
- Crust
- Population
- Population density
- Demography
- Immigration
- Migration
- Culture
- Government
- Economy
- Renewable resources
- Non-renewable resources



- Natural resources
- Global warming
- Endangerment
- Pollution

Teacher Information
N/A

Skills
- Identify characteristics
- Describe characteristics
- Analyze
- See relationships
- Draw conclusions

Materials and Resources
Concepts and Tools of the Geographer Unit Post Assessment

Preparation Activities
Copy **Concepts and Tools of the Geographer Unit Post Assessment** for each student.

Introductory Activities (2 minutes)
Explain to students that the post assessment will be used as a tool by you to measure their about this unit. Emphasize that they should make their best effort on the assessment.

Pre-assessment
N/A

Teaching and Learning Activities (45 minutes)
Distribute the **Concepts and Tools of the Geographer Unit Post Assessment** to each student.

Products and Assignments
Students' assessment results

Post Assessment

Extension Activities

N/A

Post Assessment

Concepts and Tools of the Geographer Unit Post Assessment

Debriefing and Reflection Opportunities

N/A

Concepts and Tools of the Geographer Post Assessment

Name_____ Date_____

1. What is geography?

2. What comprises the earth's surface?

3. What kind of information do maps give us?

4. How would you find the absolute location of a particular place on a map?

5. How does the earth's movement affect our climate?

6. Why does the earth experience seasonal changes?

7. How are day and night determined?

8. What are plate tectonics?

9. How has the earth's shape changed?

10. How do weathering and erosion affect our planet?

11. Why do some areas in the world have larger populations?

12. How does climate and physical terrain affect where people live?

13. Give two examples of landforms.
a.

b.

14. Why does culture change?

15. What is a government, and why do people need one?

16. Name two renewable resources.
a.

b.

17. Name two non-renewable resources.

18. Why are all of us responsible for maintaining our earth's resources for future generations?

“Curriculum Map”

Authors: Renee Allister, Lisa Malina
Curriculum Map: Concepts and Tools of the Geographer
Grade Level: 6

Major Principles and Generalizations	Time Allocation and Parallel	Minor Principles and Generalizations	Concepts	Skills	Themes	Guiding Questions
Pre-assessment	CORE 45 minutes	• Geography is the study of the earth's surface, climate, continents, countries, peoples, industries, and projects. • The earth's surface is composed of physical features (location, place, regions). • The earth's surface is composed of humans who affect the environment. • Maps can provide both accurate and inaccurate information. • The earth's climate depends upon its movement in space. • The natural and cultural features of the earth are affected by its rotation and revolution. • Geographers study plate tectonics. • Climate and landforms affect where people live. • Climate is the prevailing weather conditions of a region averaged over years. • Landforms are any of the number of natural features on the earth's surface, including mountains, plains, plateaus, hills, cliffs, etc. • Given the right to choose, people choose to live in places that are similar to their economic and political status. • Over time cultures change for many different reasons (e.g., population growth, human interaction with the terrain). • Societies have political and economic structures. • The earth has renewable and non-renewable resources. Renewable sources are natural products that the environment continues to replace. Examples are water and plants. • Non-renewable resources are resources that cannot be replaced once they have been used. Examples are fossil fuels.	• Geography • Location • Place • Human-environment interaction • Maps • Longitude • Latitude • Parallels • Degrees • Equator • Meridians • Scale • Distortion • Topography • Orbit • Axis • Rate • Revolve • Seasons • Tilt • Climate • Plates • Erosion • Weathering • Crust • Population • Population density • Demography • Immigration • Migration • Culture • Government • Economy • Renewable resources • Non-renewable resources • Natural resources • Global warming • Endangerment • Pollution	• Identify characteristics • Describe characteristics • Analyze • See relationships • Draw conclusions	• Place • Location • Climate • Change • Needs • Effects of human impact • Adaptation	• What do I know about the different aspects of geography? • What do I know about different types of maps and the information they give us? • What do I know about the earth's topography and how and why it has changed? • What do I know about how climate and physical terrain affect people? • What do I know about culture? • What do I know about renewable and non-renewable resources?

Major Principles and Generalizations	Time Allocation and Parallel	Minor Principles and Generalizations	Concepts	Skills	Themes	Guiding Questions
1. Geography is the study of the earth's surface, climate, continents, countries, people, industries, and projects.	CORE/ CONNECTIONS 6 hours, 45 minutes (9 – 45 minute lessons)	• The earth's surface is composed of physical features (location, place, regions). • The earth's surface is composed of humans who affect the environment.	• Geography • Physical science • Social science • Geology • Anthropology • Social structure • Location • Place • Human-environment interaction • Movement • Regions • Industry • Culture • Pollution • Resources • Rainforest • Projects • Longitude/latitude • Parallels • Meridians • Degrees • Compass • Maps • Equator • Religion • Language • Ethics • Technology • Agriculture • Endangerment • Global warming • Ozone	• Identify • Compare/ contrast • Observe • Analyze • Reason deductively • Solve problems • Locate details	• Place • Location • Region • Interaction • Movement	• What is geography? • What are five themes of geography? • What comprises the earth's surface? • What is a natural feature? • Why is the study of people important to geography? • Why do people immigrate to other places in the world? • What is culture? How do cultural ideas spread? • How are cultures affected by their landscapes?
2. The earth's surface is connected. It can be studied by breaking it into individual parts and studying maps	CORE/ IDENTITY/ AID 4 hours, 20 minutes (5- 45 minute lessons, 1- 35 minute lesson)	• Maps can provide both accurate and inaccurate information • Geographers use many different types of maps.	• Hemisphere • Longitude/latitude • Parallels • Location – relative and absolute • Degrees • Equator • Meridians • Prime meridian • International date line • Compass • Scale • Distortion • Projection • Globe vs. map • Key • Cardinal directions • Topography • Coordinates • Cartographer	• Reason deductively • Inquire • Find details • Analyze • Compare/ contrast • Observe • Record • Reflect	• Location	• What comprises the earth's surface? • What is a natural resource? • What kind of information do maps give us? • Could I be a cartographer?

Major Principles and Generalizations	Time Allocation and Parallel	Minor Principles and Generalizations	Concepts	Skills	Themes	Guiding Questions
3. The earth's climate depends upon its movement in space.	CORE/ CONNECTIONS 1 hour, 30 minutes (2 – 45 minute lessons)	• The natural and cultural features of the earth are affected by its rotation and revolution.	• Orbit • Axis • Rotate • Speed • Day • Night • Revolve • Seasons • Tilt • Sun • Vegetation • Climate • Agriculture	• Develop hypothesis • Make observations • Analyze information • Summarize	• Climate	• How does the earth's movement affect climate? • How does the earth experience seasonal changes? • How are day and night determined?
4. Geographers study plate tectonics.	CORE/ CONNECTIONS/ AID 2 hours (2 – 60 minute lessons)	• The earth was once a huge landmass called Pangaea.	• Pangaea • Laurasia • Gondwana • Panthassla • Plates • Volcanoes • Erosion • Weathering • Earthquakes • Crust • Mantle • Core • Ring of Fire	• Make observations • Predict • Develop hypotheses • Analyze data • Compare/contrast	• Change	• What are plate tectonics? • How is the earth's shape changed? • How do weathering and erosion affect our planet?
5. Population affects our geography.	CORE/ AID 2 hours, 15 minutes (3 – 45 minute lessons)	• Climate and landform affect where people live. • Some places have greater populations. • Places in the world have different climates and landforms. • Climate is the prevailing weather conditions of a region averaged over years. • Landforms are any of the number of natural features on the earth's surface, including mountains, plains, plateaus, hills, cliffs, etc.	• Population • Population density • Populous • Demography • Increase and decrease • Life expectancy • Immigration • Migration • Rural • Urban • Movement • Nuclear family • Extended family • Culture • Climate • Topography	• Read • Infer • Analyze data • Summarize • Make connections	• Needs • Effects of human impact	• What factors cause large populations in some parts of the world? • Why do some areas in the world have larger populations? • How does the climate and physical terrain affect where people live? • How does the geography of a place satisfy the needs of the people from that place?

Major Principles and Generalizations	Time Allocation and Parallel	Minor Principles and Generalizations	Concepts	Skills	Themes	Guiding Questions
6. Given the right to choose, people choose to live in places that are similar to their economic and political status.	CORE 2 hours, 15 minutes (3 – 45 minute lessons)	• Over time cultures change for many different reasons (e.g. population growth, human interaction with the terrain). • Cultures affect their environment, and environment affects the cultures. • Traditions, stories, religion, and language are important to cultures. • Societies have political and economic structures.	• Government • Economy • Consumer • Capitalism • Democracy • Communism • Farming • Services • Schools • Producer • Population density • Technological changes	• Read • Compare and contrast • Reason deductively	• Adaptation	• Why does culture change? • How does culture change? • How does culture affect our geography? • How do people determine what their homes should look like? • How does geography affect where and how people live? • What is a government? • Why do we need a government? • How does government affect our lives?
7. The earth has renewable and non-renewable resources.	CORE 1 hour, 30 minutes (2 – 45 minute lessons)	• Raw materials are the natural resources used to make products. • Manufacturing means making new products from raw materials and recyclable materials. • Fossil fuels include coal, oil and natural gas, formed from the remains of living things. • Renewable resources are natural products that the environment continues to replace. Examples are water and plants. • Non-renewable resources are resources that cannot be replaced once they have been used. Examples are fossil fuels.	• Renewable resources • Non-renewable resources • Energy • Recyclable • Fossil fuel • Raw material • Natural resources • Digging • Manufacturing • Endangerment • Global warming • Population control • Pollution	• Reason deductively • Understand cause and effect • See relationships • Solve problems	• Effect of human impact • Cause and effect	• What are renewable and non-renewable resources? • What is energy? • How can we protect energy? • How is geography affected by renewable and non-renewable sources? • Are non-renewable resources found in all regions of the world.

Major Principles and Generalizations	Time Allocation and Parallel	Minor Principles and Generalizations	Concepts	Skills	Themes	Guiding Questions
8. Climate and landform affect where people live.	CORE/ CONNECTIONS 3 hours, 45 minutes (5 – 45 minute lessons)	• Climate is the prevailing weather conditions of a region averaged over years. • Given the right to choose, people choose to live in places that are similar to their economic and political status. • Cultures affect their environment, and environment affects the cultures. • Traditions, stories, religion, and language are important to cultures. • Societies have political and economic structures. • Raw materials are the natural resources used to make products. • Manufacturing means making new products from raw materials and recyclable materials.	• Maps • Scale • Absolute location • Legend • Climate • Population • Population density • Immigration • Culture • Topography • Government • Economy • Renewable resources • Non-renewable resources • Energy • Raw materials • Natural resources • Manufacturing • Population control • Pollution	• Develop hypothesis • Reason deductively • Analyze • Understand cause and effect • See relationships • Make connections • Solve problems	• Effect of human impact • Location • Climate • Needs • Adaptation	• How do I create a country with a geographic location, climate, and natural resources that are reflected in the country's history, culture, population density, government, and manufactured products?

Major Principles and Generalizations	Time Allocation and Parallel	Minor Principles and Generalizations	Concepts	Skills	Themes	Guiding Questions
Post Assessment	CORE 45 minutes	• Geography is the study of the earth's surface, climate, continents, countries, peoples, industries, and projects. • The earth's surface is composed of physical features (location, place, regions). • The earth's surface is composed of humans who affect the environment. • Maps can provide both accurate and inaccurate information. • The earth's climate depends upon its movement in space. • The natural and cultural features of the earth are affected by its rotation and revolution. • Geographers study plate tectonics. • Climate and landforms affect where people live. • Climate is the prevailing weather conditions of a region averaged over years. • Landforms are any of the number of natural features on the earth's surface, including mountains, plains, plateaus, hills, cliffs, etc. • Given the right to choose, people choose to live in places that are similar to their economic and political status. • Over time cultures change for many different reasons (e.g., population growth, human interaction with the terrain). • Societies have political and economic structures. • The earth has renewable and non-renewable resources. • Renewable resources are natural products that the environment continues to replace. Examples are water and plants. • Non-renewable resources are resources that cannot be replaced once they have been used. Examples are fossil fuels.	• Geography • Location • Place • Human-environment interaction • Maps • Longitude • Latitude • Parallels • Degrees • Equator • Meridians • Scale • Distortion • Topography • Orbit • Axis • Rate • Revolve • Seasons • Tilt • Climate • Plates • Erosion • Weathering • Crust • Population • Population density • Demography • Immigration • Migration • Culture • Government • Economy • Renewable resources • Non-renewable resources • Natural resources • Global warming • Endangerment • Pollution	• Identify characteristics • Describe characteristics • Analyze • See relationships • Draw conclusions	• Place • Location • Climate • Change • Needs • Effects of human impact • Adaptation	• What do I know about the different aspects of geography? • What do I know about different types of maps and the information they give us? • What do I know about the earth's topography and how and why it has changed? • What do I know about how climate and physical terrain affect people? • What do I know about culture? • What do I know about renewable and non-renewable resources?

“Materials and Resources”

Lesson	Primary Materials	Books	Additional Materials (Supplied by Teacher)
Module 1 Lessons 1-9	Index cards, chart paper (1 pad), writing journal pads (30), large white construction paper (1 piece for each student), maps/atlases, glue, scissors, markers (enough for each student group)		Grocery store flyers (enough for each student group to have one or two)
Module 2 Lessons 1-5	Round balloons, scissors, tape, permanent markers, rulers, glue, graph paper (one of each of the above for each student), writing journal pads (1 for each student)		Pictures of famous landmarks (Try Images at www.google.com if you don't have pictures available.)
Module 3 Lessons 1-2	Yellow and blue balloons (enough for each pair of students), flashlights, markers, white paper (enough for each pair), large Styrofoam balls (1 for each student),		Box lid, skewers (1 for each student)
Module 4 Lessons 1-2	World maps (3 for each student), map of Pangaea (1 for each student), large blue construction paper (2 pieces for each student), paper plates, scissors, glue, (enough for each student), plastic containers with lids (for each pair of students), 12" x 18" piece of white construction paper (for each pair), small magnifying glass (for each pair), straws (for each pair)		Apples (enough for each student to have ¼ apple), knife for cutting apples, toothpicks, large clear container, large rock, soil (enough for each pair of students), pebbles or small rocks (enough for each pair), baking pans (enough for each pair), sand, twigs, small rocks, watering can
Module 5 Lessons 1-3	Maps of the United States (for each group of students), index cards, graph paper or computer access to a graphing program, paper and markers (each group), world maps for each group, climate maps for each group, writing journal pads	Non-fiction books or magazines about chosen cities, several copies of the book *Everybody Cooks Rice* by Norah Dooley	United States population statistics from 1900 to present for several different cities-printed copies for each group of students, rice, samples and directions for travel brochures (for extension project or homework)
Module 6 Lessons 1-3	Drawing paper and markers (for each student), journal writing pads, markers, chart paper, index cards	*Houses and Homes* by Ann Morris, non-fiction books on different political systems (communism, democracy, dictatorship, monarchy, socialism, etc.)	Pictures of different styles of houses and homes (mansions, huts, houses on stilts, etc.), at least 15 pictures for each group, access to Internet if possible
Module 7 Lessons 1-2	Blank index cards (5 for each student), markers or pencils for each student, journal writing pads, square piece of paper for each student, thumbtack for each student, straw or wooden stick for each student, scissors and rulers for each student, lined writing paper for each student		Pictures of various objects made from different materials (some from renewable resources, some from non-renewable resources) – at least 15 cards for each pair of students, list of addresses for energy organizations and /or state representatives for student letters

Lesson	Primary Materials	Books	Additional Materials (Supplied by Teacher)
Module 8 Lessons 1-5	Large world map that is posted or small world maps for each student, drawing paper (3 pieces for each student), markers, crayons, or colored pencils (for each student), lined writing paper (5+ pages for each student), colored paper for each student, graph paper for each student, scissors, glue, ruler and tape (for each student)	Collection of non-fiction books on unit concepts	Computer access