

Geology of North America

Teacher's Guide Middle School



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A Message from our Company...

Dear Educator:

Thank you for your interest in the educational videos produced by the Visual Learning Company. We are a Vermont-based, family owned and operated business specializing in the production of quality educational science videos and materials.

We have a long family tradition of education. Our grandmothers graduated from normal school in the 1920's to become teachers. Brian's mother was an elementary teacher and guidance counselor, and his father was a high school teacher and superintendent. This family tradition inspired Brian to become a science teacher, and to earn a Ph.D. in education, and led Stephanie to work on science educational programs at NASA.

In developing this video, accompanying teacher's guide, and student activities, our goal is to provide educators with the highest quality materials, thus enabling students to be successful. In this era of more demanding standards and assessment requirements, supplementary materials need to be curricular and standards based - this is what we do!

Our videos and accompanying materials focus on the key concepts and vocabulary required by national and state standards and goals. It is our mission to help students meet these goals and standards, while experiencing the joy and thrill of science.

Sincerely,

Brian and Stephanie Jerome



National Standards Correlations

National Science Education Standards

(Content standards: 5-8, National Academy of Sciences, c. 1996)

Benchmarks for Science Literacy

(Project 2061 – AAAS, c. 1993)



Student Learning Objectives

Upon viewing the video and completing the enclosed student activities, students will be able to do the following:

- Understand that geologists are still trying to understand the geologic history of North America.
- Explain that much of the geologic events which have occurred in North America are a result of the North American Plate interacting with surrounding plates.
- State that the North American Plate is still moving in a north westerly direction at a rate of about two to three centimeters per year.
- Point out the following mountain systems on a North American map; Appalachian Mountains, Rocky Mountains, and Pacific Mountain systems
- Define the term orogeny as the process of mountain building.
- Explain the role subduction plays in the formation of volcanoes.
- Point out the coastal plains area on a map of North America.
- Describe the major features of a coastal plain.
- Compare the major characteristics of coastal plains and interior plains.
- Point out the location of the interior plains on a North America map.
- Discuss how the Grand Canyon was carved from the Colorado Plateau by the Colorado River.
- Describe how movement along fault lines, such as the San Andreas, can cause earthquakes.
- Explain the role glaciers played during the Ice Ages in sculpting the landscape.



Assessment

Preliminary Assessment:

The Preliminary Assessment, provided in the Student Masters section, is an assessment tool designed to gain an understanding of students' pre-existing knowledge. It can also be used as a benchmark upon which to assess student progress based on the objectives stated on the previous pages.

Video Review:

The Video Review, provided in the Student Masters section, can be used as an assessment tool or as a student activity. There are two main parts. The first part contains questions that can be answered during the video. The second series of ten questions consists of a video quiz to be answered at the conclusion of the video.

Post Assessment:

The Post Assessment, provided in the Student Masters section, can be utilized as an assessment tool following completion of the video and student activities. The results of the Post Assessment can be compared against the results of the Preliminary Assessment to evaluate student progress.



Introducing the Video

Before showing students the video find some pictures of some of the major geologic features of the United States such as the Grand Canyon, Niagara Falls, Yosemite Valley, Rocky Mountains, Great Lakes or the Appalachian Mountains. You may also want to find a picture of a geologic feature near your community or in your state/province. Show these pictures to your students, and ask them to study them for a couple of minutes. Ask them to point out the location of each on a map of North America. Write the names of the features on the board.

Next, ask your students if they know when these features were created. Also, ask them if they know how these features were created. Tell your students that these geologic features are different ages and were created in different ways. Tell students to pay close attention to the program to learn about when and how these beautiful geologic features were created. Following the video, write what students learned about the features under its name on the board.

Video Viewing Suggestions

The student Master “Video Review” is provided for distribution to students. You may choose to have your students complete this Master while viewing the program or to do so upon its conclusion.

The program is approximately twenty minutes in length and includes a ten question video quiz. Answers are not provided to the Video Quiz on the video, but are included in this teacher’s guide. You may choose to grade student quizzes as an assessment tool or to review the answers in class.

The video is content-rich with numerous vocabulary words. For this reason you may want to periodically stop the video to review and discuss new terminology and concepts.



Video Script: Geology of North America

1. If you have ever had the opportunity to take the train,...
2. ...or drive across North America , you have gained a rich appreciation,
3. not only for the beauty of the continent,...
4. ...but, for its great geologic diversity.
5. From the rocky shores of the Canadian Maritimes,...
6. ...to the coastal plains along the Atlantic Seaboard,...
7. ...from the prairie in the continent's heartland,...
8. ...to the towering Rocky Mountains,...
9. ...or the volcanic peaks of the Pacific Northwest,...
10. ...the geology of North America is awe inspiring.
11. The geology and topography of North America tells us a fascinating story.
12. During the next few minutes, we are going to take a brief look at some of the highlights of this story,...
13. ...as we explore the geology of North America.
14. **Graphic Transition – Unraveling the Geologic Story**
15. For hundreds, if not thousands of years, people have pondered the origins of North America's great mountains,...
16. ...its deep cut canyons,
17. ...expansive blue lakes,
18. ...and sweeping plains.
19. Early Native Americans passed on stories, many of which are quite scientifically accurate describing significant geologic events.
20. With the arrival of Europeans, scientific analysis began to piece together the geologic story of North America.
21. Only during the past few centuries, a mere blink of an eye in geologic time, has our understanding of how North America was formed begun to take shape.
22. This process of painting a more complete picture is still taking place today.
23. Through the work of surveyors, physical geologists, historical geologists, paleontologists, and other scientists we have gained a better understanding of the lengthy, complex, and ever changing geologic history of the continent.
24. **Graphic Transition – The North American Plate**
25. According to The Theory of Plate Tectonics, the earth's surface is made up of many rigid plates, which move on Earth's surface. The thickness of tectonic plates varies, but they average about 100 kilometers.
26. When put in relation to the earth, the thickness of the plates is a bit like the skin of this apple.



Script (cont.)

27. This diagram illustrates the boundaries of the North American Plate.
- 28. You Observe!** Does the North American Plate contain just land?
29. No, the North American Plate contains more than just the North American continent. It also includes portions of the Atlantic Ocean sea floor.
30. The interaction of the plates, over time, has played a very important role in shaping Earth's surface, and...
31. ...has been responsible for numerous geologic processes such as earthquakes, mountain building, and volcanic eruptions.
32. Even though we cannot feel it, the North American Plate is moving.
33. Geologists estimate that it is moving at a rate of two to three centimeters per year, about the rate at which your fingernails grow.
34. During the next few minutes we will discuss some of the ways the North American continent has been affected by the powerful forces of plate tectonics.
- 35. Graphic Transition – Mountain Building**
36. When you think about sports such as skiing or...
37. ...hiking, mountains immediately come to mind.
38. There are numerous mountainous areas in North America.
39. Let us describe three broad mountain systems.
40. The Appalachian Mountains stretch from Alabama along the eastern United States to New Foundland, Canada.
41. The Rocky Mountains stretch from New Mexico northward into Alberta and British Columbia.
42. And, the Pacific Mountain system stretches from California through the Pacific Northwest into British Columbia.
43. Within these broad mountain systems are smaller mountain ranges. For example, the White Mountains in New Hampshire are part of the Appalachians.
44. ... as are the Chic Choc Mountains in Quebec.
45. Mountain building is the process of forming mountains.
46. Geologists use the term orogeny to describe the process of mountain building.
47. The process of orogeny is varied and often complex.
48. The Appalachian orogeny is believed to have begun over 400 million years ago through a series of mountain building events initiated by tectonic plate collisions.
49. The complex events which created the basic structure of the Rocky Mountains, called the Laramide orogeny, are believed to have occurred approximately 65 million years ago as a result of the North American Plate and the Pacific Plate colliding.
50. The Cascades are considered to be the most volcanically active mountains on the continent, formed as a result of the Juan de Fuca plate subducting under the North American plate.



Script (cont.)

51. Subduction is the process of one plate moving under another plate.
52. This is still occurring today and is the force responsible for volcanic and geothermal activity in the Cascades.
53. The Sierra Nevada Mountains in California are mostly made of granite formed from molten rocks when dinosaurs roamed Earth. Less than five million years ago, the Sierra Nevada range was uplifted, or pushed up by tectonic force, to form the mountains we see today here in Yosemite National Park.
54. This is just a brief and rather simplistic look at the process of orogeny in some of the larger mountain ranges in North America.
55. Keep in mind that there are other smaller groups of mountains on the continent,...
56. ... and that geologists are still unraveling the story of mountain building throughout the continent.
- 57. Graphic Transition – Coastal Plains**
- 58. You Compare!** What is the difference between this high, flat region in Utah, and this low-lying flat area in Massachusetts?
59. The high, flat area is called a plateau.
60. Whereas this low lying flat region near the ocean is called a coastal plain.
61. Plains are large flat areas with little difference in elevation.
62. Coastal plains are simply plains that are relatively close to the coastline of the ocean.
63. The highlighted area seen here along the Atlantic and Gulf Coast is a coastal plain.
64. Large numbers of people live on this coastal plain.
65. Many of the coastal plains in the United States were once created by ancient seas which deposited sediments on the ocean floor over 70 million years ago.
66. When the seas subsided, the large flat plains remained.
67. Over time, rivers and streams deposited thick layers of rich sediments. The process in which sediments are dropped is known as deposition.
68. These deposits often provide good soils for agricultural crops.
- 69. Graphic Transition – The Interior Plains**
70. This is present day Iowa. Large herds of bison used to roam here.
71. Today, it is one of the most productive agricultural zones in the world.
72. This general part of the continent is referred to as the interior plains.
73. Relatively flat, and somewhat higher in elevation than the coastal plains, the interior plains stretch from the southern part of the United States up into the central Canadian provinces.
74. Sedimentary rock layers are common in this part of the country, left by seas which once covered the land.



Script (cont.)

75. Sediments which were eroded from the Rocky Mountains were transported and deposited by river systems. These deposits served as the basis for fertile topsoils.
76. Today, the great Mississippi River watershed is where most of the water from the interior plains drain. The Mississippi River travels south to the Gulf of Mexico.
77. Here it deposits sediments in the Mississippi River delta.
- 78. Graphic Transition – The Western Plateaus**
79. The deserts of Arizona,...
80. ...the majority of Nevada,...
81. ...as well as the canyons of southern Utah, comprise a topographic region generally called the western plateau.
82. One of the plateaus in the region is called the Colorado Plateau.
83. Famous national parks including Bryce Canyon, Arches, as well as the Grand Canyon, are located within the Colorado Plateaus.
84. Between 144 million and 63 million years ago, large seas repeatedly invaded, retreated, and then reinvaded the region, depositing sediments thousands of feet thick.
85. These layers make up the foundation of today's Colorado Plateau.
86. Approximately 15 to 20 million years ago, great tectonic forces within the Earth's crust displaced the region thrusting it upwards several thousand feet, or over one thousand meters, resulting in the formation of the Colorado Plateau.
- 87. You Decide!** How was the Grand Canyon formed?
88. During the past several million years the Colorado River has cut through the layers of rock in the Colorado Plateau...
89. ... forming the Grand Canyon, one of the most dramatic geologic wonders of the world.
90. And, here in Bryce Canyon National Park, these strange formations have been sculpted by erosional forces from the layers of the Colorado Plateau.
- 91. Graphic Transition – Faulting**
92. This is San Francisco, California, one of the most beautiful cities in North America.
93. At 5:04 pm on October 17, 1989, its citizens began to panic,...
94. ...as an earthquake violently shook the city and surrounding areas.
95. The earthquake toppled buildings,...
96. ... and collapsed highways, causing millions of dollars worth of damage.
97. Today, people who live here regularly feel small earthquakes.
98. Many nervously anticipate a large earthquake, referred to as "the big one".



Script (cont.)

99. The ultimate cause of earthquakes, in San Francisco as well as throughout coastal California is sudden movement along the San Andreas fault.
100. Strong forces within the Earth, commonly caused by moving plates, often force rocks to bend.
101. ... or to break along planes called faults.
102. Sudden movement along faults can generate intense waves in the ground which we call earthquakes.
103. This aerial image illustrates one of the most famous geologic features in North America – the San Andreas Fault.
104. The San Andreas fault system, which is made up of many faults, measures over 1,000 kilometers in length, from southern California to San Francisco and northward into the Pacific Ocean.
105. The region east of the fault is moving slowly south, and the region west of the fault is slowly moving north.
- 106. Graphic Transition – The Ice Age**
107. From time to time throughout North America's history, a large portion of the continent has been covered with massive sheets of ice called glaciers.
108. These periods are often referred to as Ice Ages.
109. Throughout time, glaciers have advanced and receded over North America.
110. During the past two million years, scientists have found evidence of four major glaciation periods, which undoubtedly occurred during times of cooler worldwide climates.
111. During times of extensive glaciations ice sheets may have achieved thicknesses of 3,000 meters, or nearly two miles thick.
112. The last major glaciation ended only about 10,000 years ago.
113. This massive ice sheet covered all of Canada and extended as far south as Iowa and Illinois in the United States.
114. The powerful forces of moving ice are believed to have carved out the Great Lakes,...
115. ...sculpted much of the topography in New England,...
116. ...left glacial deposits such as the boulders seen here,...
117. ...and even played a role in the creation of Niagara Falls.
- 118. Graphic Transition – Summing Up**
119. During the past few minutes we have taken a brief look at some of the geologic highlights of North America.
120. We gained an appreciation of the complexity of the geologic story of the continent, and the role that geologic time has played in this process.
121. We have discussed the powerful forces that plate tectonics have played in and around the North American plate.



Script (cont.)

122. More specifically, we discussed how tectonic forces were responsible for the creation of the Appalachian Mountains.
123. The process of mountain building, also called orogeny, was discussed in relation to the Rocky Mountains,...
124. ...and in the Cascade Mountains as well.
125. We saw how the process of subduction in which one plate slides under another plate is responsible for the formation of volcanoes in the Cascades.
126. We compared two different kinds of plains – coastal plains and the interior plains.
127. Then, we explored the fascinating geologic history of the Colorado plateau,...
128. ...and saw how the Colorado River cut through the plateau to form the Grand Canyon.
129. The famous San Andreas Fault, responsible for numerous earthquakes in California was highlighted.
130. And, we took a quick look at the role glaciers have played in forming such significant features as the Great Lakes.
131. So, the next time you travel across the United States or Canada,...
132. ...even if it is close to your home,...
133. ...think about some of the things we have discussed during the past few minutes.
134. You just might think about the geology around you a little differently.
- 135. Graphic Transition – Video Assessment**

Fill in the correct word to complete the sentence. Good luck and let us get started.

1. Earth's surface is made up of many different _____.
2. The _____ of plates is responsible for numerous geologic processes.
3. _____ refers to the process of mountain building.
4. _____ is the process of one plate moving under another plate.
5. _____ plains are located along the eastern seaboard.
6. The interior _____ are areas of intense agriculture.
7. A _____ is a high flat area.
8. The Grand Canyon is cut from the _____ Plateau.
9. The _____ fault has been responsible for many earthquakes in California.
10. The Great Lakes were formed by _____.

Answers can be found on page 17.



Student Assessments and Activities

Assessment Masters:

- Preliminary Assessment
- Video Review
- Post Assessment

Student Activity Masters:

- Geologic Highlights of North America
- Topographic Region of North America
- Vocabulary of Geology of North America



Answers to Student Assessments

Preliminary Assessment (pgs. 20-21)

1. plates
2. North American
3. interaction
4. orogeny
5. subduction
6. coastal
7. plateau
8. Colorado
9. earthquake
10. San Andreas
11. false
12. false
13. true
14. true
15. false
16. true
17. false
18. true
19. true
20. true

Video Review (pg. 22)

1. No, the North American Plate contains more than just land. It also includes portions of the Atlantic Ocean.
2. The high, flat area is called a plateau. The low lying flat region near the ocean is called a coastal plain.
3. During the past several million years the Colorado River has cut through the layers of the Colorado plateau forming the Grand Canyon.

Video Quiz (p. 22)

1. plates
2. interaction
3. orogeny
4. subduction
5. coastal
6. plains
7. plateau
8. Colorado
9. San Andreas
10. glaciers

Post Assessment (pgs. 23-24)

1. subduction
2. San Andreas
3. Colorado
4. North American
5. earthquakes
6. plateau
7. orogeny
8. interaction
9. plates
10. coastal
11. true
12. true
13. true
14. true
15. false
16. true
17. false
18. false
19. true
20. false



Answers to Student Activities

Geologic Highlights of North America (pgs. 25-26)

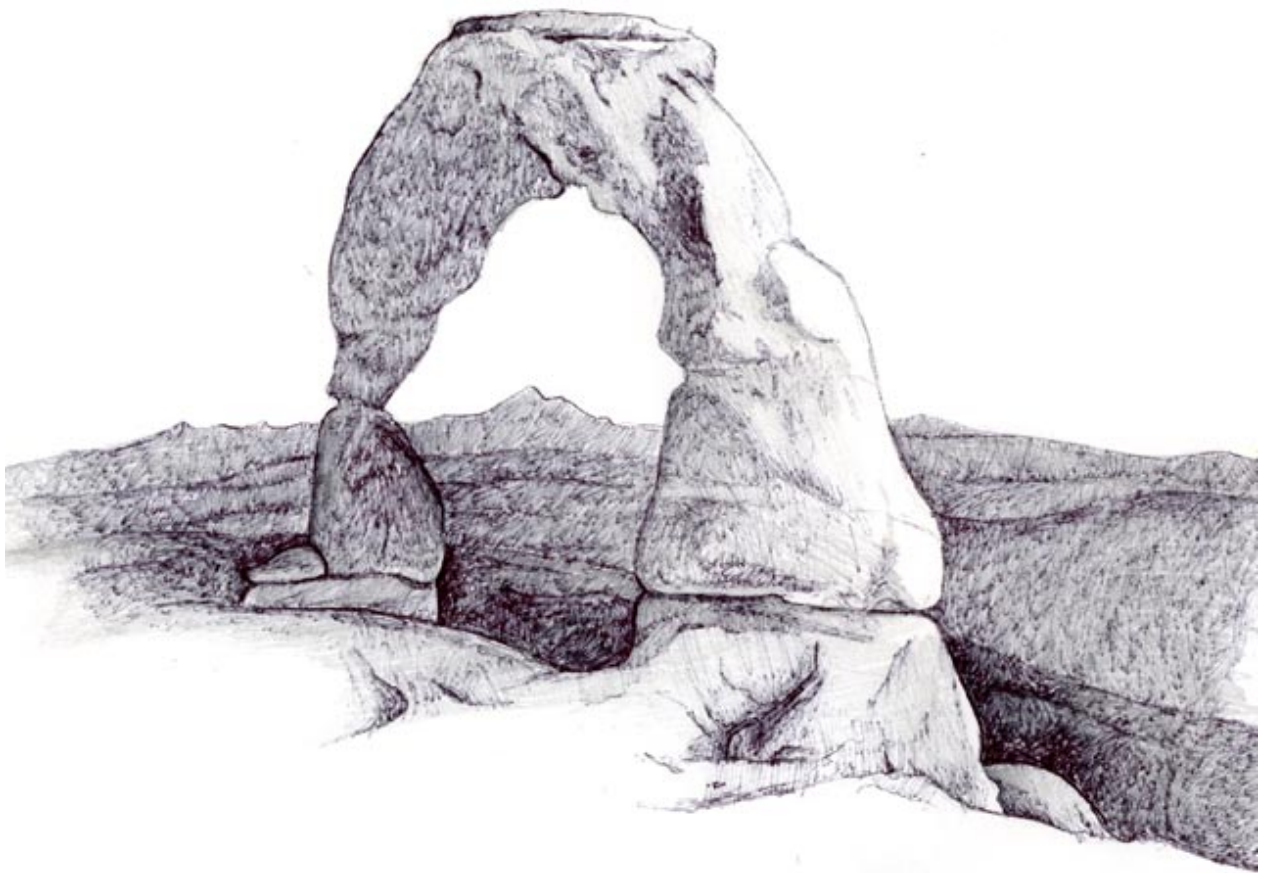
| Geologic Structure | Location | Broader Geologic System | Approximate Age | Brief description of formation |
|--------------------------|----------|-------------------------|-----------------|--------------------------------|
| Canadian Rockies | | | | |
| Bryce Canyon | | | | |
| Chic Choc Mountains | | | | |
| Everglades | | | | |
| Great Plains | | | | |
| Mount Rainier | | | | |
| San Andreas Fault System | | | | |

Vocabulary of *Geology of North America* (p. 30)

1. g - North American Plate
2. j - Appalachian mountains
3. d - orogeny
4. a - coastal plain
5. i - plateau
6. b - interior plains
7. c - deposition
8. e - Colorado plateau
9. h - San Andreas fault
10. f - glaciation period

Topographic Regions of North America (pgs. 27-29)

Assessment and Student Activity Masters



Preliminary Assessment

Directions: Fill in the blank with the correct word. A list of possible answers is provided at the bottom of the page.

1. According to the Theory of Plate Tectonics, earth is made up of numerous _____.
2. Canada and the United States are on the _____ plate.
3. The _____ of plates has played a very important role in shaping Earth's surface.
4. _____ is the process of mountain building.
5. _____ is the process of one plate sliding under another plate.
6. Low flat lying regions near the ocean are called _____ plains.
7. A _____ is a large elevated flat area.
8. The Grand Canyon is carved from the _____ plateau.
9. _____ are often generated by sudden movements along fault lines.
10. Movement along the _____ fault is responsible for many earthquakes in California.

earthquakes
plateau
subduction
interaction
plates

North American
San Andreas
orogeny
Colorado
coastal

Preliminary Assessment

Directions: Decide whether the statement is true (T) or false (F).

- | | | |
|---|---|---|
| 11. Scientists completely understand the geologic history of North America. | T | F |
| 12. North America resides on the Eurasian plate. | T | F |
| 13. The North American plate is still moving today. | T | F |
| 14. Geologists use the term orogeny to describe the process of mountain building. | T | F |
| 15. The White Mountains and Chic Choc Mountains are parts of the Rocky Mountain system. | T | F |
| 16. The interior plains are now one of the richest agricultural areas in the world. | T | F |
| 17. Coastal plains are largely uninhabitable by people. | T | F |
| 18. The Mississippi River is the principle drainage of the interior plains. | T | F |
| 19. The Grand Canyon exposes the layers of rock of the Colorado Plateau. | T | F |
| 20. The San Andreas fault represents a plate boundary between the Pacific Plate and the North American Plate. | T | F |

Video Review

Directions: During the course of the program, answer the questions as they are presented in the video. At the end of the video, answer the Video Quiz questions.

You Observe!

1. Does the North American Plate contain just land?

You Compare!

2. What is the difference between this high, flat region in Utah, and this low-lying flat area in Massachusetts?

You Decide!

3. How was the Grand Canyon formed?

Video Quiz:

1. Earth's surface is made up of many different _____.
2. The _____ of plates is responsible for numerous geologic processes.
3. _____ refers to the process of mountain building.
4. _____ is the process of one plate moving under another plate.
5. _____ plains are located along the eastern seaboard.
6. The interior _____ are areas of intense agriculture.
7. A _____ is a high flat area.
8. The Grand Canyon is cut from the _____ Plateau.
9. The _____ fault has been responsible for many earthquakes in California.
10. The Great Lakes were formed by _____.

Post Assessment

Directions: Fill in the blank with the correct word. A list of possible answers is provided at the bottom of the page.

1. _____ is the process of one plate sliding under another plate.
2. Movement along the _____ fault is responsible for many earthquakes in California.
3. The Grand Canyon is carved from the _____ plateau.
4. Canada and the United States are on the _____ plate.
5. _____ are often generated by sudden movements along fault lines.
6. A _____ is a large elevated flat area.
7. _____ is the process of mountain building.
8. The _____ of plates has played a very important role in shaping Earth's surface.
9. According to the Theory of Plate Tectonics, earth is made up of numerous _____.
10. Low flat lying regions near the ocean are called _____ plains.

subduction
coastal
earthquakes
orogeny
Colorado

San Andreas
plates
North American
interaction
plateau

Post Assessment

Directions: Decide whether the statement is true (T) or false (F).

- | | | |
|---|---|---|
| 11. The San Andreas fault represents a plate boundary between the Pacific Plate and the North American Plate. | T | F |
| 12. The Mississippi River is the principle drainage of the interior plains. | T | F |
| 13. The interior plains are now one of the richest agricultural areas in the world. | T | F |
| 14. Geologists use the term orogeny to describe the process of mountain building. | T | F |
| 15. North America resides on the Eurasian plate. | T | F |
| 16. The Grand Canyon exposes the layers of rock of the Colorado Plateau. | T | F |
| 17. Coastal plains are largely uninhabitable by people. | T | F |
| 18. Geologists use the term orogeny to describe the process of mountain building. | T | F |
| 19. The North American plate is still moving today. | T | F |
| 20. Scientists completely understand the geologic history of North America. | T | F |

Geologic Highlights of North America

Background: From the rocky Atlantic seacoast, to the volcanoes of the Pacific Northwest, to the Grand Canyon, to the coastal plains of Florida, the geology of North America is awe inspiring. The geology and topographic regions of the continent are not only beautiful but quite diverse. From low, flat plains to towering mountains, the geologic history of North America is complex and fascinating. For centuries scientists have attempted to piece together the complicated geologic puzzle. This process still continues today. In this activity you will take a look at some of the geologic features of North America and attempt to explain some of their characteristics.

Materials:

- Atlas of North America
- Geology textbooks and resource books
- Encyclopedia
- Worksheet titled "Geology of North America"

Directions:

1. Obtain a copy of the worksheet and resource materials from your instructor.
2. Using the books and other resource materials, read up on the different geologic features stated in the first column of the worksheet.
3. From the information you have learned, fill in the blanks on the worksheet.
4. If time permits, look up information on other interesting features in North America such as the Great Lakes, Lassen Peak, Yellowstone, the Gulf Coast and the Smoky Mountains.



Geology of North America

| Geologic Structure | Location | Broader Geologic System | Approximate Age | Brief description of formation |
|--------------------------|----------|-------------------------|-----------------|--------------------------------|
| Canadian Rockies | | | | |
| Bryce Canyon | | | | |
| Chic Choc Mountains | | | | |
| Everglades | | | | |
| Great Plains | | | | |
| Mount Rainier | | | | |
| San Andreas Fault System | | | | |

Topographic Regions of North America

Background: Topography is the general shape of the Earth's surface. You might describe the topography around your home as being hilly, flat, or mountainous. A topographic region is an area which has the same general topography. For example, a mountain range can be referred to as a topographic region. In North America there are a wide variety of topographic regions. These include but are not limited to the coastal plain, Appalachian Mountain System, the Interior plains, Rocky Mountain System, Colorado plateau, and the Western Mountain System. The geologic processes which are responsible for forming these topographies is complex and fascinating.

In this activity you will learn about some of the features of some of the major topographic regions in North America. You will also have the opportunity to examine the location of these regions. Using a partial map of North America on the following page, follow the directions to complete the activity.

Materials:

- Topographic region of North America map
- Colored pencils
- Atlas
- Geology reference books

Directions:

1. Obtain a copy of the partial map of North America. Begin by labeling the three major mountain systems: Appalachians, Rocky Mountains, and Western Mountain system. Shade in the general area of each mountain system using a different color for each system.
2. As you may already know, the term orogeny refers to the process of mountain building. Choose one of these three mountain systems, and describe its process of orogeny in one or two paragraphs. Describe when and how the mountain system was formed.
3. Within mountain systems are mountain ranges. On your map of North America label the following mountain ranges: Chic Chocs, White Mountains, Smokey Mountains, San Francisco Peaks, sierras, and the Cascades.

Topographic Regions of North America, Cont.

4. The coastal plain found on the eastern seaboard of North America is a broad, expansive, low lying flat region. On your map shade in the general outline of the coastal plain.
5. Label the location of the following places in the coastal plain: the Everglades, the Okefenokee swamp, and the Great Dismal Swamp.
6. The interior Plains consist of a huge, relatively flat area in the central part of the continent. The Interior Plains have a slightly higher elevation than the coastal plain. Briefly describe how the Interior Plains were formed. Outline the general location of the Interior plains.
7. A plateau is a large, elevated relatively flat region. One of the more famous plateau in North America is the Colorado Plateau. Located in the southwestern part of the United States, the Colorado Plateau spans four states. The Grand Canyon, Bryce Canyon, and Zion Canyon are all carved from the Colorado Plateau. Outline the general area of the Colorado Plateau.
8. If time permits, read about one of specific locations mentioned in this activity to learn about its geology and geologic history.

Topographic Regions of North America, Cont.

Vocabulary of Geology of North America

Directions: Unscramble the vocabulary words in the first column. Match the words to the definitions in the second column.

____ 1. rhnto mnaaeicr ltpae _____

____ 2. paipacaalhn uasmniotn

____ 3. rgnooey _____

____ 4. asocatl ilpna _____

____ 5. upaleat _____

____ 6. tiireonr lisapn _____

____ 7. ndoeiptois _____

____ 8. roaldooc pulaaet _____

____ 9. asn sdarnea uftal _____

____ 10. ciatnlaogi eidpro _____

- a. broad, low, flat lying region located near ocean.
- b. relatively flat, broad region located toward the middle of a continent.
- c. process by which sediments are dropped.
- d. process of mountain building.
- e. large, flat elevated area located in southwestern United States.
- f. a time when glaciers covered a large area of North America.
- g. the tectonic plate upon which the United States and Canada reside.
- h. the boundary between the North American Plate and Pacific Plate in California, source of many earthquakes.
- i. large, flat elevated area.
- j. mountain system which stretches from Alabama into Canadian Maritimes.