

Mountain on the Rise

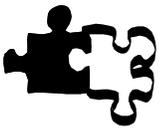
White Mountain National Forest Quarter

Grades Seven and Eight



OBJECTIVE

Students will explain magma intrusion and how it affects the formation of mountain ranges, particularly Mt. Chocorua and the White Mountains of New Hampshire.



SUBJECT AREA CONNECTIONS

- Social Studies (Geography)
- Science
- Art



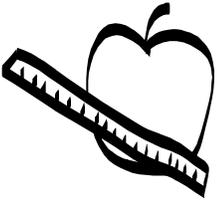
SUMMARY

1. Display and examine the “White Mountain National Forest Quarter” page. Locate this national site on a class map. Note its position in relation to your school’s location. Tell the students that the front of a coin is called the “obverse” and the back is called the “reverse.” Explain to the students that the United States Mint began to issue the quarters in the America the Beautiful Quarters® Program in 2010. By the time the program ends in 2021, there will be a total of 56 designs. Each design will focus on a different national site—one from each state, territory, and the District of Columbia.
2. Read the coin information at www.usmint.gov/mint_programs/atb/?local=WhiteMountain and examine the design using the zoom feature. Explain to the students that Mt. Chocorua is located in the White Mountains, which is part of the Sandwich Range and the Appalachian Mountains.
3. Introduce to the students the concepts of plate tectonics and magma intrusions. Have the students research the process for the formation of mountains and mountain ranges, particularly Mt. Chocorua and the White Mountains of New England. Have the students record the steps in the formation of the mountains on the “Mountains Arise” worksheet.
4. Share some examples of comic strips with the students. Have the students create a comic strip illustrating the formation of the mountains. Emphasize the importance of creative storytelling in the comic strip while conveying the facts.



ASSESSMENT

Use the “White Mountain Comic Strip Rubric” to evaluate whether the students have met the lesson objective.



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RESOURCES

- Worksheets:
 - “White Mountain National Forest Quarter”
 - “Mountains Arise”
 - “Mountains Arise Key”
 - “White Mountain Comic Strip Rubric” (1/2 page per student)
- Age-appropriate, relevant Web sites, such as:
 - White Mountain National Forest Web site: www.fs.usda.gov/whitemountain
 - Geological Origin of the New England Chain: oceanexplorer.noaa.gov/explorations/03mountains/background/geology/geology.html.
 - www.ready.gov/kidsfun-games/comic-strips



Name _____

Mountains Arise

Directions: Research the formation of mountains, particularly the White Mountains, through magma intrusion. Record the steps in the sequence chain. Use the sequence chain to create your comic strip. Use your creativity and include a story or characters in your comic strip.



1	2	3
4	5	6



Name _____

Mountains Arise

Key

Directions: Research the formation of mountains, particularly the White Mountains, through magma intrusion. Record the steps in the sequence chain. Use the sequence chain to create your comic strip. Use your creativity and include a story or characters in your comic strip.



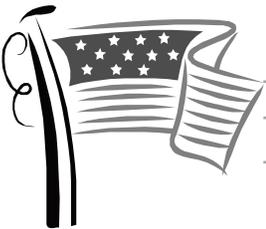
1	2	3
Hot plumes of magma	The Earth's plates move	Part of New Hampshire
swell up under the earth's	(tectonic plates).	moved over a hot spot.
crust and form hot spots.		
4	5	6
Magma cools and	The White Mountains are	Surrounding softer rock is
solidifies.	formed.	eroded away.



Name _____

White Mountain Comic Strip Rubric

CATEGORY	4	3	2	1	Self	Teacher
Accuracy of Steps and Sequence	All steps and sequence are accurate.	Most steps and sequence are accurate.	Some steps and sequence are accurate.	Few steps and sequence are accurate.		
Quality of Illustrations	Illustrations are clear.	Most illustrations are clear.	Some illustrations are clear.	Few illustrations are clear.		
Creativity and Use of Story	Very creative story illustrates the mountain's formation.	Creative story illustrates the mountain's formation.	Somewhat creative story illustrates the mountain's formation.	Story fails to illustrate the mountain's formation.		
Spelling and Grammar	No errors.	1 or 2 errors.	3 or 4 errors.	Many errors.		
Neatness	Very neat.	Neat.	Somewhat neat.	Not very neat.		
Totals						



Name _____

White Mountain Comic Strip Rubric

CATEGORY	4	3	2	1	Self	Teacher
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White Mountain National Forest Quarter



The United States of America

