



## Lesson: All About Granite

(To follow Amplify CKLA 4, Unit 5: Geology, Lessons 8: Three Types of Rocks and the Rock Cycle)

### At a Glance

This lesson extends the learning objectives in Amplify CKLA 5, Unit 5, Lesson 8: Rocks and the Rock Cycle and Lesson 9: Rocks and the Rock Cycle. This lesson focuses on granite, a type of igneous rock that is widely available in New Hampshire. That's why New Hampshire is known as the "Granite State."

### Primary Focus Objective

- Students will read non-fiction text to learn about the formation of granite, its characteristics, and its uses.
- Students will use details from reading to write a "life story" about a piece of granite.

### Formative Assessment

- Completion of "Granite Rock-ography"
- Optional: collaborative map making

### Standards

CCSS.ELA-LITERACY.RI.4.3

Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

CCSS.ELA-LITERACY.W.4.3

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

CCSS.ELA-LITERACY.W.4.4

Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

### Materials

- Focus Texts: [Unit 1: Geography, Learn It! "NH's Physical Characteristics," p. 4](#) and [Infographic: "All About Granite"](#)
- Map: [New Hampshire Town Boundaries](#)
- "Rock-ography" worksheet

### Time Needed

Two 30-40 minute sessions

### Learning Activity

1. **Preview Focus Texts.** Before reading the two selections, examine their features as a whole group. How are they similar? How are they different? Help students identify headings, key words, and images. Show students how to access captions and definitions by clicking on images and text in bold. The infographic can be accessed by clicking on the infographic icon. (5 minutes)
2. **Read Focus Texts.** Give students time to read both selections. Discuss the reading in large or small groups using the questions on the infographic. (20 minutes)



3. **Complete "Granite Rock-graphy."** Direct students to complete the planning side of the worksheet to collect details for the life story of a piece of New Hampshire granite. Students can use the reverse side to turn their notes into a complete paragraph. *(25 minutes)*
4. **Small-group share.** Encourage students to read their paragraphs in small groups. Consider posting completed paragraphs on a large map of New Hampshire to show locations of where the granite originated. Students can work together to draw a simple outline map using the smaller maps in the lesson as guides. *(15 minutes)*



## Educator Rationale and Answer Guide

### Connection to Amplify

In Amplify CKLA 4, Unit 5: Geology, Lesson 8, Three Types of Rocks and the Rock Cycle, students learn about types of rocks and how those rocks are created. This lesson focuses on a specific igneous rock so plentiful in New Hampshire that it inspired the state nickname and was at the center of a major industry that shaped the state's culture and economy in the 19th and 20th centuries. Students use different non-fiction texts, including maps, to learn more about granite and develop a fact-based "rock-graphy" about a specific piece of granite.

### Read Focus Texts

Answers may vary as students discuss the readings, but in general students should understand that:

1. The larger marks on the map indicated large quarries or sources of granite.
2. Granite has been important to New Hampshire because it is plentiful in locations around the state; quarrying it created industry and jobs for many people; it was of high quality and used in places around the state and country to build important buildings and monuments.
3. Students may have seen buildings made of granite, statues carved from granite, curbs made of granite, possibly even kitchen or sink countertops made of granite.
4. Granite is an especially strong rock that is hard to crack or cause to crumble. People who are independent and have strong beliefs could be compared to a piece of granite.

### Complete the "Granite Rock-graphy"

This activity encourages students to think about the rock cycle and beyond for a piece of New Hampshire granite. Essentially telling its life story, students should complete the planning side with details about how and where their piece of granite was created, who removed it from the earth and when, and what it was ultimately used for. A map of New Hampshire is provided for students to compare to the infographic's map so they can choose a town or city name near one of the quarry locations.

### Small group share

Give students a chance to do dramatic readings in the "voice" of their granite. Some students may also benefit from creating a large outline map of New Hampshire on a few pieces of chart paper taped together. They can reference the smaller maps included in this lesson to create this larger version. Then, each student can cut out and attach their paragraph to the general location where their piece of granite was quarried.

# ALL ABOUT GRANITE

**What is New Hampshire's nickname? Why, the Granite State, of course! You've probably seen lots of granite in your community on sidewalks, in buildings, or in parks and yards. Granite is a very important part of New Hampshire's landscape and history.**

## What is granite?

Granite is a kind of rock that is very hard. It's harder than lots of other rocks! At the end of the last ice age, the glaciers left behind a huge amount of granite in New Hampshire. There are still granite boulders all over the state. New Hampshire has many famous natural rock formations made of granite, like the Old Man of the Mountain and the Flume. About half of New Hampshire is covered with granite under the soil.

## Why is granite useful?

Granite is a great material for buildings. For example, it was used to make the New Hampshire State House in Concord and the U.S. Capitol in Washington, D.C. It is also used to make curbs for roads and in parking lots. Because it is so hard, it stands up to harsh weather without chipping or crumbling.

## How did people get granite?

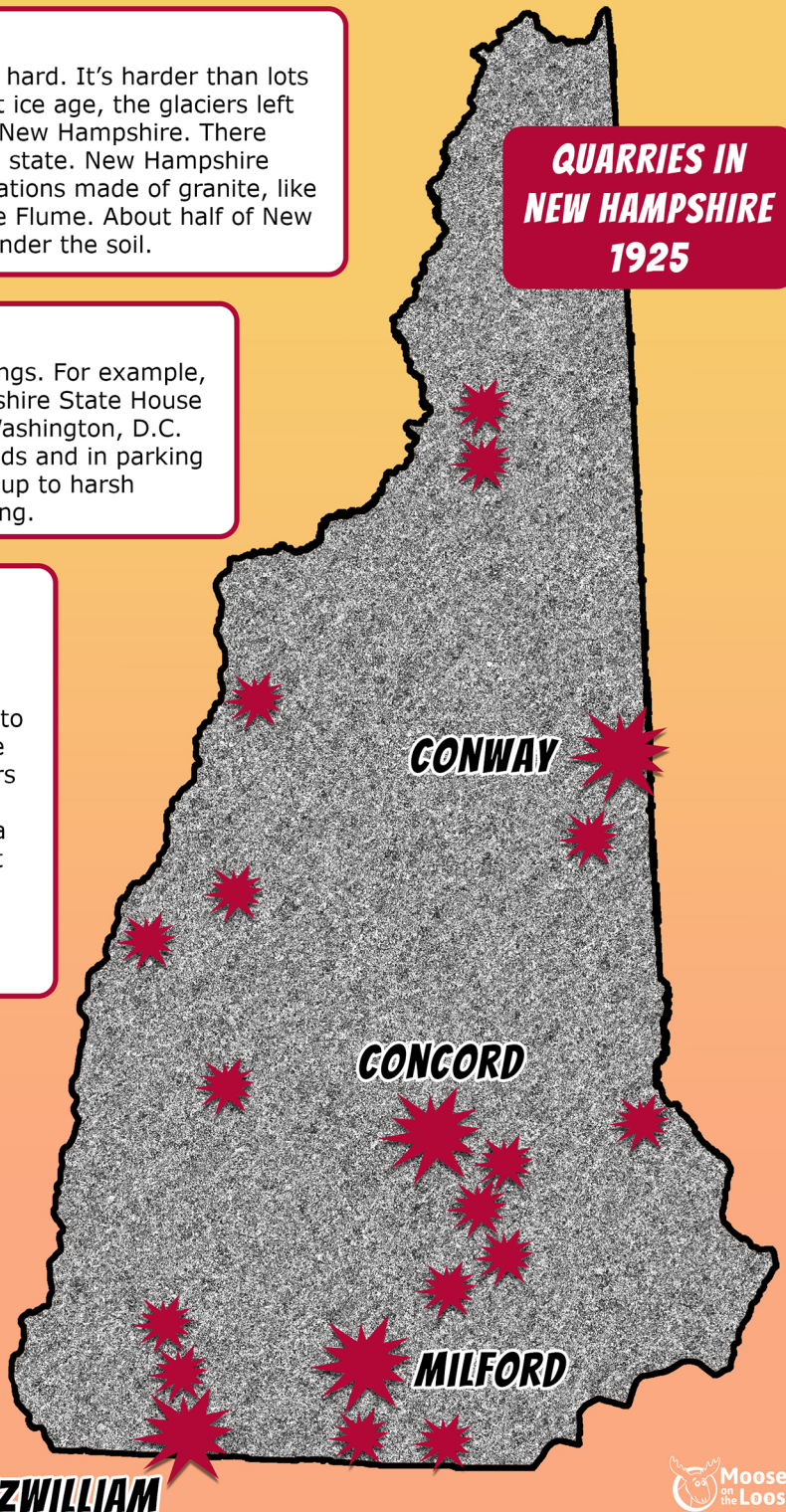
The process of turning granite into blocks of stone is called quarrying. Quarries are places where there is a lot of granite naturally. People dig into the earth to reach more of it. People used tools called feathers and wedges that would allow them to hammer a crack into the granite. It split the granite in a straight line! This is how they made the square blocks to use in curbs and buildings.



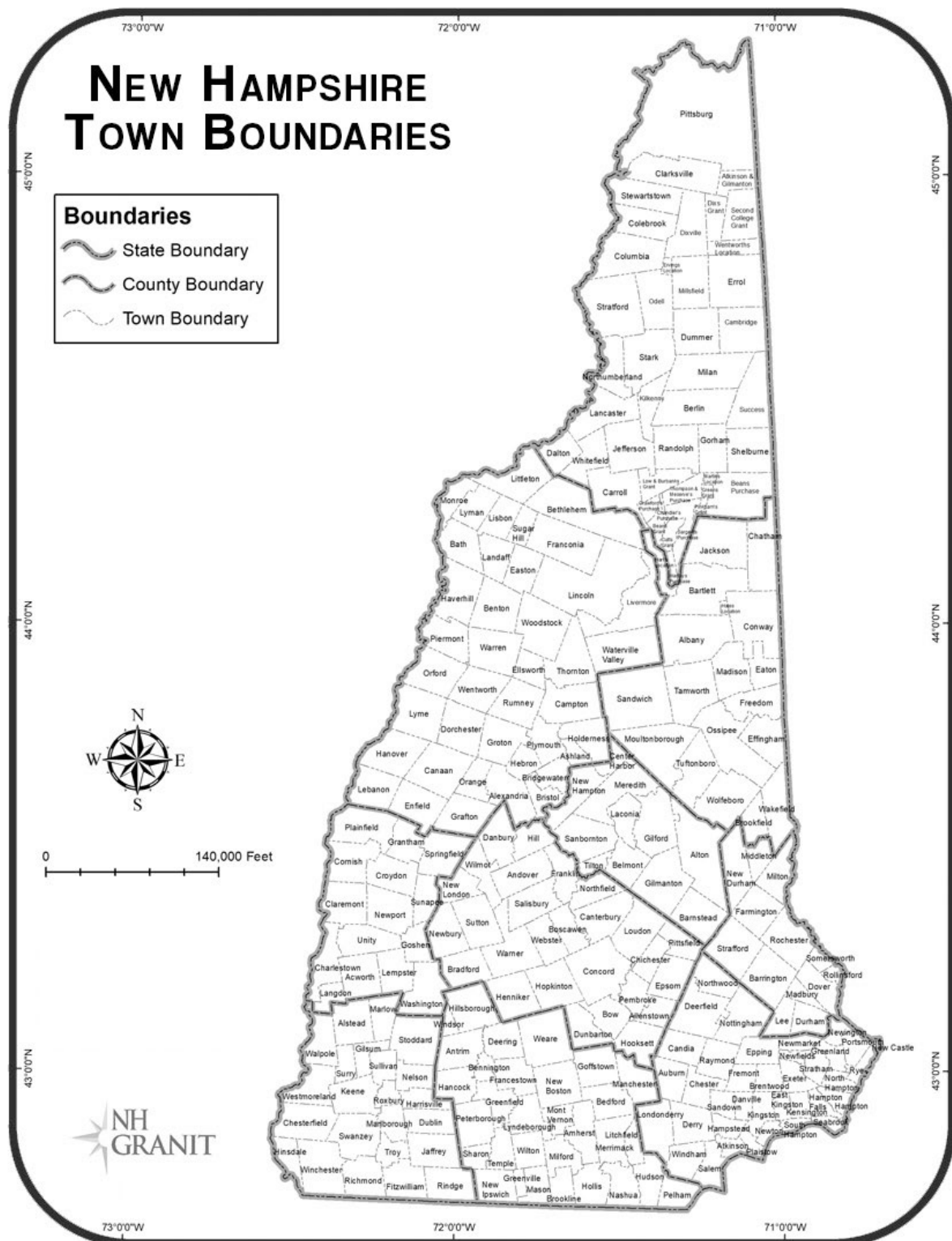
## Why is New Hampshire called the Granite State?

In the early 1800s, people began to quarry granite in New Hampshire. The state got a reputation for having lots of granite that was both beautiful and strong. In 1825, a man named Philip Carrigain wrote a poem and a song that described New Hampshire as the Granite State. People liked the nickname and started using it right away!

**QUARRIES IN  
NEW HAMPSHIRE  
1925**



1. Why do you think some of the marks on the map are bigger than others?
2. Why is granite such an important natural resource for New Hampshire?
3. Where have you seen granite in your house, neighborhood, school, or town?
4. People liked the nickname the Granite State not only because it described the state's natural resource, but also because New Hampshire's people can be compared to granite. What do you think that means?





## Granite “Rock-graphy”

<b>How did it form?</b>	
<b>Where did it form?</b>	
<b>When was it removed from the ground?</b>	
<b>Who quarried the granite?</b>	
<b>What was it turned into?</b>	
<b>Where is it today?</b>	

On the opposite side of the page, use your supporting details to write a paragraph in the “voice” of the granite telling its life story.



A large rectangular area with a dashed border, containing 15 horizontal dashed lines for writing.