

Lesson Title	Constructing Your Own Tabby
Grade Level(s)	3, 8
Timeline	1 50-minute class period

ESSENTIAL QUESTION

How does our local environment impact how we live?

OBJECTIVES

Students will construct a building material like tabby to understand engineering and cultural knowledge during the antebellum period in coastal Georgia.

STANDARDS

SS3G3c. Explain how the physical geography of the New England, Mid-Atlantic, and Southern colonies helped determine economic activities.

SS8G1b. Distinguish among the five geographic regions of Georgia in terms of location, climate, agriculture, and economic contribution.

SS8G1c. Locate key physical features of Georgia and explain their importance; include the Fall Line, Okefenokee Swamp, Appalachian Mountains, Chattahoochee and Savannah Rivers, and barrier islands.

STEM-FET3.7. Apply STEM knowledge and skills through hands-on research and lab experiments that are focused upon recreating the inventions and social solutions that were realized in the past, present, and possible future.

BACKGROUND

Use [this article](#) from the New Georgia Encyclopedia to give students a background on tabby and how it was used.

MATERIALS

- 3 tablespoons butter or margarine
- 4 cups miniature marshmallows
- 6 cups Rice Krispies
- Internet connection
- Computer or smart device

VOCABULARY

tabby: a type of concrete made of lime, shells, gravel, and stones, which dries very hard

PROCEDURES

Step One:

1. Talk with students about the process of making tabby by showing them [this video](#) from GPB News.
2. Explain that enslaved people in coastal Georgia often built slave quarters from materials found on site.
3. Brainstorm with students if they had to build a house, what materials would they use from their immediate environment for construction?
 - a. Have students work in groups of 2-4 for this activity. They can submit their responses electronically or on pieces of paper. Have different groups share their responses with the whole class to see what similarities and differences were evident in their answers.

Step Two:

1. Using a familiar item to students—breakfast cereal—talk about how the flakes are similar to and how they are different from oyster shells used in tabby.
2. Ask students what is needed to make these flakes stick together.
3. Have students research the different types of mortar used in construction. Civiltoday.com has a list of mortars and what they're made of. Using an electronic or physical discussion board, have students choose two types of mortar and list two benefits of that mortar (such as cost, strength, etc.).

Step Three:

1. Have students create their own version of tabby by making Rice Krispy Treats. [See recipe here](#). If limited on time, provide students with premade or packaged Rice Krispy Treats.
2. Discuss with students about the longevity of these materials and how they would hold up against sun, rain, and other environmental factors. Ask: "If we put these treats in the rain, what do you think would happen to them?"
3. Have students mold the outline of a house using the Rice Krispy Treats. Have students add a second layer of material to the mold. How are you able to bind them together? What issues do you experience with binding the two layers to each other? Do you think similar challenges would exist with real tabby, and if so, how do you think those issues were resolved?
4. The processes involved in making Rice Krispy Treats and making tabby are similar in that both require a recipe to be followed. What happens when the recipe isn't followed exactly to make the Rice Krispy Treats? What do you think would happen to a house made of tabby if the builder didn't follow the recipe exactly?

ASSESSMENT/CLOSING

To wrap up this activity, have students respond to the following questions as their ticket-out-the-door. Responses can be submitted electronically or on paper.

- a. In which region of Georgia is tabby used in construction?
- b. From which physical feature of Georgia do people collect the necessary "ingredients" for tabby?

EXTENSION/INQUIRY

Conduct research on popular buildings from the following time periods/areas:

- Ancient Rome
- Mississippian Indians in Georgia
- Mayan civilizations in Mexico

How does the physical environment in which these civilizations reside play a role in how their buildings are constructed?

For in-depth inquiry examples, visit c3teachers.org.

MODIFICATIONS

1. Have students use premade “tabby” in step three of the procedures.
2. Allow students to orally respond to the assessment questions.
3. Provide extended time for the activities if needed.

RESOURCES

[GPB News video: Tabby Slave Cabins](#)
[Tabby | New Georgia Encyclopedia](#)
[Types of Mortar](#)