

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2009 Volume III: Science and Engineering in the Kitchen

Chocolate Chipping Away at the Rock Cycle

Guide for Curriculum Unit 09.03.08 by Amy L. Piccirillo

Rocks aren't the most exciting topic for middle school students, but this 4-6 week unit is an exciting, edible way to encourage students to learn about them. In this unit students will learn the three main groups of rocks and the rock cycle and also be able to show how energy within the Earth is transferred within the rock cycle. Students will also be able to explain how internal energy of the Earth causes matter to cycle through the magma and the solid earth.

To introduce students to rocks and the rock cycle the teacher will present information about the layers of the Earth and plate tectonics. Next, students will be organized into small groups to research basic information about rocks. There will be a variety of igneous, sedimentary, and metamorphic rocks that they can choose from and research. They will also learn what makes up their rock and where we can find these other minerals that comprise these rocks. Eighth-graders connect to factual information better when they can relate to it in a personal way, so they will be encouraged to find out how these rocks or minerals that makes up their rocks they use or see in their everyday lives. Students will become familiar with each group of rocks and, while doing hands-on activities, will be able to explain how each is changed through the rock cycle.

(Developed for Earth Science, grade 8; recommended for Middle School Earth Science, grades 5-8)

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