

Stephanie Loeffler
6th grade art class
Tunbridge Clay, Past and Present

14 class periods May 5th- June 12th

ESSENTIAL QUESTIONS

Is there clay in Tunbridge?

How is Clay different from other types of earth that can be gathered or how will we know when we have found clay?

Why is there clay in Tunbridge?

Has the clay in Tunbridge be used before?

What can we make with the clay?

What is a natural resource?

ACTIVITIES TO SUPPORT LEARNING TARGETS

1. Students construct a journal and complete a pretest.
2. Students learn how to view a topographic map of Tunbridge.
3. Students see an overlay of ancient Lake Hitchcock over the topo map of Tunbridge
4. A geologist, Jo Palmer, comes to classroom and accompanies us on a field trip to look for and gather clay. Students learn that the clay was formed at the bottom of Lake Hitchcock over 14,000 years ago.
5. Students gather clay.
6. Journals are used in the field to record information.
7. In the classroom students make their clay a workable body by sorting out leaves and stones and removing excess water.
8. Students make sculptures and containers with their clay.
9. Tunbridge Historian, Euclid Farnham gives a lecture on the historical use of clay in Tunbridge. There were several brick yards manufacturing enough bricks to build over 25 homes, almost as many school houses and countless chimneys and foundations.
10. Students record information in their journals.
11. The class watches youtube videos on building clay ovens and they take notes and draw pictures in their journals.
12. Students make small 6" model clay ovens following directions from their notes.
13. Students in groups of 4-5 build small (18" X 18") working clay ovens (outside) on a base of 2 cinderblocks and 6 firebricks.
14. The class attempts to build fires in their oven. The fires were unsuccessful because the oven openings were too small to allow for enough oxygen. But we had fun!

15. Student dismantle ovens and save materials to use next year.
16. Students complete exit survey.

ASSESSMENTS OF LEARNING

1. Examination of individual student journals
 - a. field notes
 - b. pretest
 - c. exit survey
2. Making of objects out of their own gathered clay.
3. Students create posters about their clay unit for an open house event at school.
4. Student notes on building a clay oven.
5. Handling clay and other materials to construct a clay oven.

KEY GEs/GSEs

- A5-6:16 Students make connections between the arts and disciplines outside the arts by communicating ideas, concepts from other disciplines.
- S5-6:7 Students demonstrate their to EXPLAIN DATA by using experimental results to support or refute original hypothesis and using additional resources(interviews to strengthen an explanation
- S5-6:9 Students demonstrate their understanding of the properties of matter and recognizing that all living and non living things are formed from combinations of about 100 elements.
- S5-6:14 Students demonstrate their understanding of Physical change by predicting the effect of heating and cooling on the physical state and mass of a substance

SUPPORTING RESOURCES

Jo Palmer, a geologist working for a firm in Montpelier.

Euclid Farnham, Tunbridge town historian.

Tim Sinnott, GIS Specialist at GreenInfo Network. Tim created a fabulous Topo map of Tunbridge with an overlay of ancient Lake Hitchcock.

Build Your Own Earth Oven Kiko Denzer with Hannah Field 2007

YouTube, Earth & Clay Ovens www.earthovens.co.uk February 10, 2010