

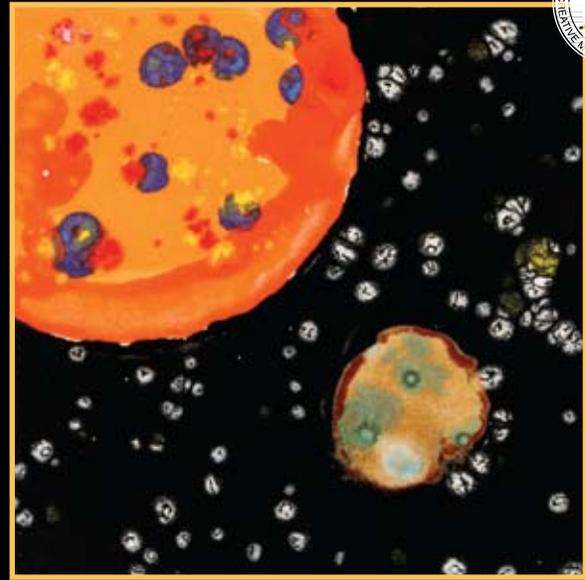


Lesson Plan #47

Celestial Tiles

Study of the Solar System

by Noelle Hoover and Diana Faris



The stars in the night sky have been the subject of eternal contemplation, poetry and research. They have provided inspiration for science, film-making and art for several centuries, and the study of Astronomy continues to amaze us with new discoveries! This is an exciting cross-curricular project involving the study and research of planets, moons, stars and solar systems. What better way to represent Celestial forms and colors on clay than with AMACO Crystaltex glazes that fire naturally to create *starbursts* of color?

Tools & Materials

- Bisque-fired tiles—6"x6", Item #11333L
- Assorted AMACO Crystaltex (CTL) glazes or starter set CTL Glaze Class Pack #4 – 12 pints, item #39229J.
Tip: The following glaze colors are recommended for the night sky / background and should also be available: CTL-22 Milky Way, CTL-1 Jet Moss, CTL-23 Moody Blue and CTL-3 Lava.
- AMACO TP-1 Coal Black Teachers Palette glaze, item #36601A
- Underglaze Applicators (16 gauge), item #11263K (1 per 2 students)
- Assorted soft-haired ceramics brushes
- Optional: Wax Resist Solution, Item #41382A may be used to cover glazed planet shapes before applying the background color.

Lesson Plan Goals and Objectives

- Students will study Astronomy, investigating why the planets in our solar system are different colors, whether they have solid, liquid or gaseous surfaces, and their relative scale to our planet, Earth.
- Students will explore composition and the spatial relationships of forms through the use of color.
- Students will investigate and visualize how glazes alter in appearance before and after firing.

This lesson is ideal for grades 3-8.

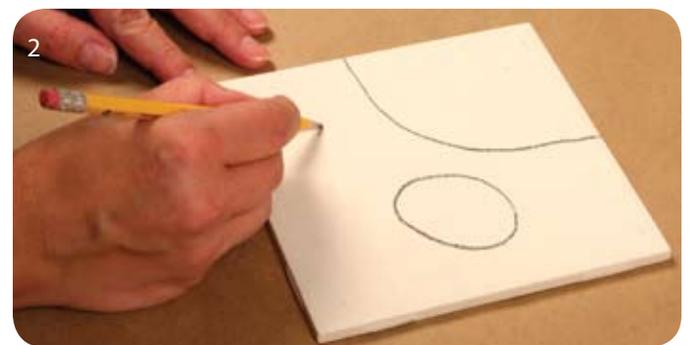
National Visual Arts Standards

- Making connections between visual arts and other disciplines
- Content Standard Understanding and applying media, techniques, and processes
- Using knowledge of structures and functions
- Choosing and evaluating a range of subject matter, symbols, and ideas

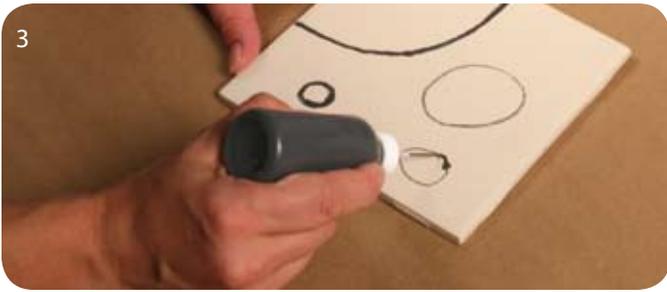
Technique



1. Introduce the project and assign the desired level of research and sketching. Students could collectively create one large mural, or each paint their own personal design.



2. Sketch the basic designs onto bisque tiles using a regular pencil. If starting with moist clay, sketch on paper before translating onto clay.



3. Draw over the pencil line contours with AMACO Coal Black Teachers Palette glaze (TP-1) that has been poured into an Underglaze applicator bottle. This will serve as an outline to help separate the various glaze colors and provide a slightly shiny and black background for areas that are not colored. Lines should be about $\frac{1}{16}$ "– $\frac{1}{8}$ " wide and could also be applied by brushing.



4. Once the black lines are dry, begin by filling in areas of color using the desired AMACO Crystaltex glaze colors. 2-3 coats of glaze should be brushed on for full coverage, but if pooling the glaze onto a small area, one application may be sufficient. The CTL glazes contain crystal chunks that should be mixed well into the glaze.



5. Fill in the night sky or background with the desired glaze color.



6. The crystal chunks may also be placed specifically where desired for controlled color bursts.



7. Fire to Cone 05, keeping the tiles flat so the colors don't flow together.

PROJECT VARIATIONS:

Use Stickers: Adhesive circles or stickers cut in the shapes of the desired planets and stars may be placed on the bisque tile first before any glazing is done. The “background” would then be painted and allowed to dry before removing the stickers and filling in the other colors.

Sculpt Wet Clay: If more than one class period is available, this assignment could be executed in 3D or in relief by using moist clay then modeling and sculpting the planet shapes and textures (use AMACO 25M White Art Clay, Item #45015Y). Upon bisque-firing to cone 04, the pieces would be glazed as indicate above with Crystaltex glazes and re-fired to cone 05.

Create Tile Frames: Custom frames may be modeled using AMACO’s air-drying Cloud Clay. Just apply the soft Cloud Clay to the completed fired tiles and allow to dry in place. Cloud Clay will adhere as it dries, so place it on wax paper for easy removal.



Glossary

Astronomy: The science of celestial objects, space and the physical universe.

Bisque: Unglazed ceramic after the first firing.

Fire: To heat the clay in a kiln at a very high temperature until it is hard and it becomes ceramic.

Glaze: A special clear or colored liquid mixture applied to ceramic surfaces that become hard and glass-like when fired to the right temperature in a kiln.

Solar System: The nine planets and their moons orbiting around the sun.

Underglaze: A colored decoration applied to bisque or greenware and usually covered with a glaze before firing.



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