

Thumb Pots

Bringing History to Life!

a STEAM Project

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What is a Thumb Pot/Jug?

A Thumb Pot/Jug is a tool that was used during colonial times. This tool was used for gardening. For example, it was used to water plants and clean floors. Thumb pots were created in either the late 1400s or the early 1500s. We brought history to life because these Thumb Pots were made the same way about three hundred years ago.



How we brought history to life!

We based this project off of a colonial watering tool. It shows off our creativity of how we made our thumb pots. A very long time ago the colonists used this tool to water their crops, clean their house, and bring water to their village. A thumb pot can also be made in different shapes and sizes.



The Engineering Process: Part 1

#1 You decide on a shape (Cone or bottle.) Roll out your clay. Draw, or create a pattern or texture on the clay. Use texture, stamps, or a pencil. To add a pattern with a texture, place your texture mold on the clay, take a roller and roll it on the patterns. (Press the roll pretty hard, so it shows up.) Then turn the slab of clay over. (So there's no textures showing.) place your cone/bottle on the slab of clay and cut it out a little bigger.



The Engineering Process: Part 2



#2 Wrap your bottle/cone in paper towels. Then you wrap your clay over your cone/bottle. Wet and score each end together to make one solid cone/bottle. During this part you can add any sprigs. (A sprig is a clay pattern that's 3d. An example of a sprig is a 3D flower) If your patterns/textures are smushed this is your chance to add it again.



The Engineering Process: Part 3

#3 Get a piece of clay and place it on the bottom of the thumb jug. Wet and score the clay together. When your done, poke holes at the bottom, (Works best with a pencil.) Look through the top, if you see light you're good, if not make the holes a little bigger. Next make a hole on the top of your Jug. (Make it a little smaller that your thumb.)



The Engineering Process: Part 4

#4 After this it's pretty much done, and it's ready for the kiln! Be very careful by holding your thumb jug because even though it's done it's very fragile.



Observations

Before it was fired the clay felt, soft, squishy, wet, cold and breakable. It looked gray and kind of muddy. This is called greenware, because there's still water inside.

After the clay was in the kiln, it looked chalky, looks lighter in color, and looked like a sand color. It looked, bumpy, and cool. This is what it looked like after the kiln. This is called bisque ware.

Before

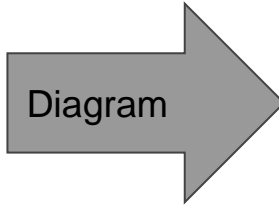


After

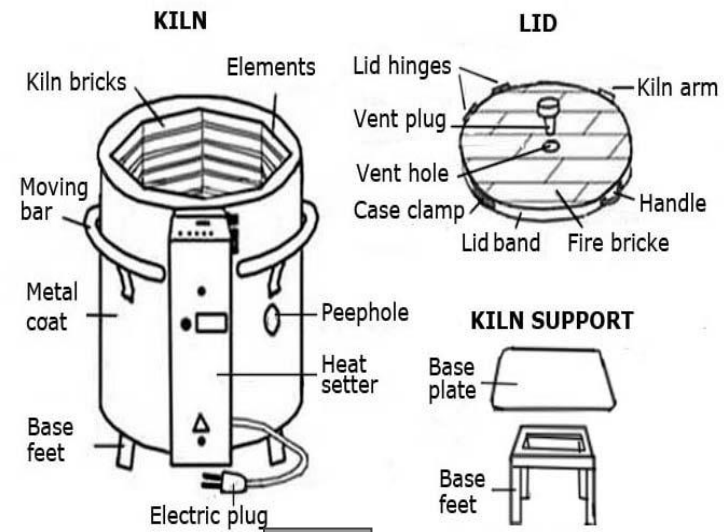


Pictures of the Kiln

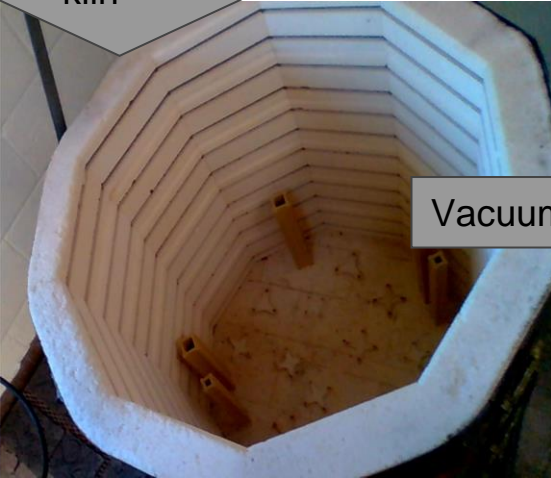
Inside the kiln there are places to put the thumb pots and other projects. The electricity is used to heat the projects. It has to be a certain temperature to make the greenware into bisqueware. It's used for heating the clay. The kiln evaporates all the water from the thumb pots leaving them solid and ready for glazing.



Diagram



inside kiln



Vacuum lid



kiln



Glazing



- Rough & bumpy
- Tan color
- Cracks
- No coats of glaze

Before glazing the thumb pot, you need to pick a color for your thumb pot. Next you need to put 3 coats of the glaze that you chose. Blow dry in between each coat.

- Smooth
- Colors
- Patterns
- Coats of glaze

BEFORE



AFTER



Glazing Part 2

This is where the
Thumb Pots go.



How long does the thumb pot need to be in the kiln?

Bisque Fire

The bisque fire needs *Glaze fire*
to be to cone 04, which
is 1,945° F. It is a slow process
that takes 12 hours.



The glaze fire needs
to be at cone 05,
which is 1,888° F. It
is at a medium speed
that takes about 7
and a half hours.

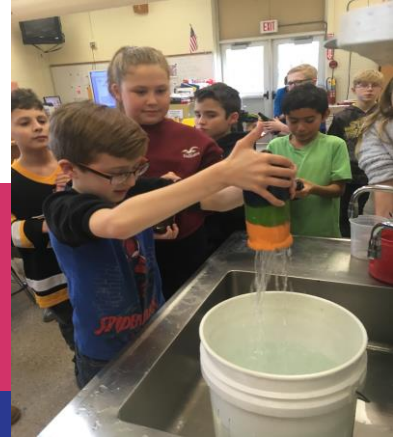
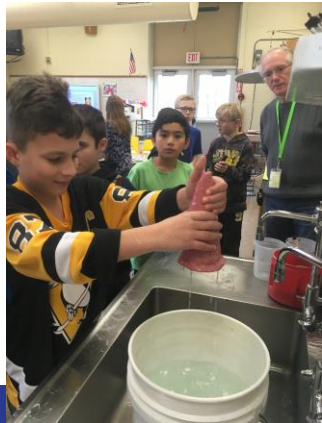
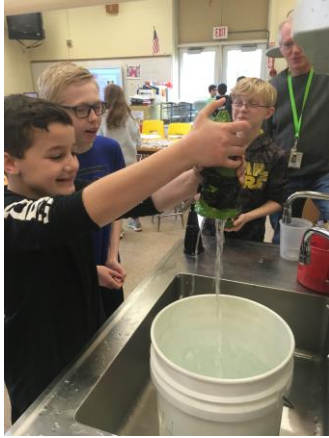
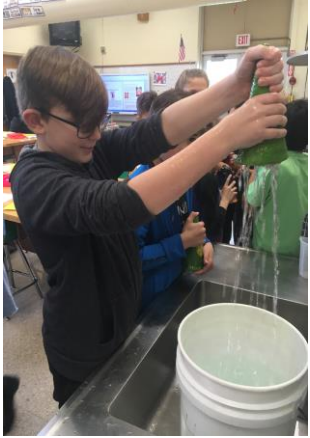


Testing the Thumb Pots

The first step of testing the thumb pot is to submerge the thumb pot in water. Then, you put your thumb on the whole at the top of the thumb jug to hold the water in place. The Thumb Pot then acts like a vacuum because it sucks in the water through the bottom of the Thumb Pot. Next, to make a shower you have to release your thumb. Finally, lift your thumb pot out of the water, with your thumb still secured on it. Then, finally release. This will create a shower. This creates a shower due to the holes at the bottom of the Thumb pot.



Testing Thumb Pots Pictures



***THIS IS HOW WE INTEGRATED ART INTO SCIENCE, SOCIAL
STUDIES, TECHNOLOGY, ENGINEERING, AND MATH***



THANKS FOR WATCHING!!!