



Cheat Sheet

Coil Pot

School Name:
Teachers Name:
Ceramics and Pottery I
Grades 6 - 12
[Dates]



project #2

COIL POTS

BUILDING THE POT

TEMPLATE SUPPLIES

MAKING THE TEMPLATE

SUPPLIES

To create a sturdy template, you will need the supplies listed:

- Folder / Stiff Paper
- Colored Paper
- Scissors
- Black Marker

CHOOSE A POT SHAPE



The paper cutout is an outline for the final template. You don't have to use the shape seen in the videos. Encourage students to research different coil pot forms that were used throughout history.

POT MEASUREMENTS



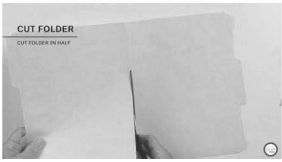
The measurements on this outline help dictate the final size requirements of the coil pots.



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FINAL TEMPLATE  11.25" x 10.5" x 1/4"	The final template will act as a sizing guide for students when it comes to building their coil pots.
CREATE A SLAB  FLATTEN CLAY INTO A ROUND SLAB CREATE THE BASE SLAB BY TRACING A ROUND OBJECT THAT MATCHES THE BASE OF THE TEMPLATE 11.25" x 10.5" x 1/4"	Either have students press out a small slab of clay, trace and cut their own bases or you can pre-trace circles so that you control the size of their finished product.
COILS  ROLL OUT THICK, FINGER-SIZED COILS ROLL A COIL ABOUT THE SIZE OF YOUR INDEX FINGER 11.25" x 10.5" x 1/4"	Coils seem so simple but students can have difficulty rolling them. Encourage students to use small amounts of moist clay. Larger pieces or firm clay are difficult for anyone to roll. If the coil becomes oval rather than round, the clay may be too stiff or the student may not be pressing hard enough. Have them stand up and roll the coil using their entire hand slowly, from the fingertips to the wrist. They will get better with this over time.
SCORE & SLIP  ATTACH THE FIRST COIL TO THE BASE SCORE & SLIP THE BASE OF THE POT, THEN ATTACH THE FIRST COIL 11.25" x 10.5" x 1/4"	The first coil needs to be cut at an angle and go slightly inside the edge of the circle slab so that the base can be smoothed up to join the first coil. Placing their base slab on a banding wheel allows the coil attachment process to go more smoothly. Have students put a piece of paper towel, newspaper, notebook paper, or whatever is handy so the clay won't stick to the banding wheel.
COMPRESS  SMOOTH WITH FINGER & OUTSIDE OF COILS USE A POPSICLE STICK TO COMPRESS THE COIL ON THE INTERIOR & EXTERIOR 11.25" x 10.5" x 1/4"	In order to slip and score, students need to use a needle tool, paper clip, or bamboo skewer to scratch the clay. Pressing the coil to the slab with just a tool does not form a firm connection. They need to score and slip. Wide wooden popsicle sticks are a great and cheap tool for joining moist clay. Most books say to smooth the coil down on the interior and the exterior, but is easier for students to smooth down on the outside and up on the inside. Make sure they do not pull up on both the inside and outside of the walls or they will become too thin.



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CONTINUE ADDING MORE COILS & FLARE OUT THE FORM SLIGHTLY

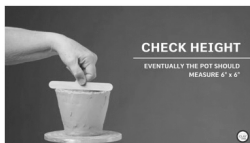
11.12.19 A150 - 101

How students stack the coils determines the shape. In the beginning the form should be flaring out slightly, so watch closely so one of two things don't happen:

1. Students build a cylinder, recognize their mistake then flare out quickly. Look at the pot from the side. Any pot with an abrupt change in direction is a potential collapse.
2. If they build out too fast (a bowl shape) then build up, the form may collapse as they continue adding weight to the curved bottom.

Students who build up and out in a "V" shape will not have structural issues even if the clay is moist.

Constantly check the thickness of the walls to ensure they are correct (about the thickness of a pencil. Thick walls use lots of clay, add lots of weight, and take forever to dry. Thin walls may collapse when they paddle and scrape it later.



CONTINUE BUILDING UNTIL YOUR POT IS 5" x 5" THEN 6" x 6"

11.12.19 A150 - 101

Once they are about 5" in height they should be about 5" wide and then 6" x 6". If they go any wider than 6" the pots become very large and too difficult for students to build back in.

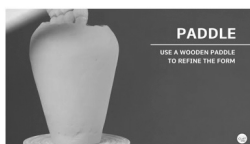
If they reach 6" tall before they are 6" wide they can build straight up and they will still end up with a great form.



COVER THE RIM IF IT STARTS TO DRY & CRACK

11.12.19 A150 - 101

Sometimes student work will dry if not properly wrapped or if it hasn't been worked on for a few days. The entire pot doesn't need to be softened, just the top where students will be adding more clay. To moisten, wrap a damp paper towel or newspaper around the rim.



KEEP ONE HAND INSIDE THE POT AS YOU PADDLE TO REMOVE ANY DENTS

11.12.19 A150 - 101

While students can still get their hand inside the form, have them push out all the dents.

After pushing the dents out and when the form is a little stiffer, have students use a paddle (or strip of wood) to refine their pot. The clay is ready to be paddled when the wooden paddle does not stick. They need to keep one hand on the inside while paddling gently on the outside. If there are paddle marks, they may be hitting it a little too hard. They can get out the rest of the dents by pressing with the inside hand.



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SMOOTH
SCRAPE EXTERIOR WITH A SERRATED RIB THEN SMOOTH WITH A STRAIGHT EDGE RIB

Once students have used the paddle to even out the dents on the form, the next step is to scrape and smooth the exterior. This will give them the smooth surface ideal for sgraffito.

Starting with a smooth scraper may actually highlight bumps and dips while beginning with a serrated-edge rib scrapes away the imperfection across the entire surface. At this point the surface is almost “fuzzy” looking and is rough with no dents. Now students use the smooth scraper to smooth the textured surface.

This smoothing process will take some time. Do not rush students through this important process. If they want to rush try having them do a section at a time.



SMALLER OPENING
ADD COILS TO THE INSIDE EDGE TO MAKE THE OPENING SMALLER

When building coil pots, the form can flare inward versus outward and not have collapse problems. This is the same premise as an arch.

Students have difficulty with this and sometimes want to build the form up like a cone. Not only does this make an odd shape, but they will continue building upwards longer and taller in order to get a small opening.

They should use their fingers to push down on the inside to encourage the form to go in. The top should look round like a basketball. It will not collapse unless they build straight in.

Students are sometimes worried that by placing the coil on the interior edge, it will fall in. Encourage them to continue building in as opposed to up in order to create a smaller opening.



TRIM THE OPENING
USE A JAR LID TO CENTER AND TRIM THE OPENING

If students over build the top slightly, they can use a jar lid to mark the center. The 2 oz. jar lids of AMACO Velvet Underglazes work perfectly for this!

Remind students to stop and check that the opening is centered, otherwise they could end up with a lopsided form.

After cutting the circular opening, they will continue building the neck straight up.



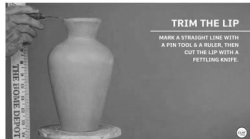
BUILDING THE NECK
BUILD UP & OUT UNTIL THE FORM IS NO TALLER THAN 12"

Students build up and out until they reach 10” – 12”. Pots can be smaller if you choose, however, if they are taller than 12” it can make loading the kiln difficult.

Students need to clean as far down inside the pot as they can see in order to practice good craftsmanship. The side of a popsicle stick is perfect for this.

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TRIM THE LIP USING A NEEDLE TOOL & RULER
THEN CLEAN WITH A DAMP ABRASIVE PAD

Once the pot has set up slightly, have students trim the lip. Since it is difficult to cut evenly, use a shredder (looks like a Surform tool you get at the hardware store). This tool will shave the top like a cheese grater. Students can mark a line first by using a ruler to steady their hand a pin tool. They can either use a fettling knife to cut on the line or use a shredder to the line.



TRY DIFFERENT HANDLE STYLES & IDENTIFY
THE TRANSITION POINTS WHERE THE
HANDLES FIT BEST

Encourage students to create their own style of handles. You may want to carry this part further by having them create sculptural handles such as snakes instead of coils.

Handles are best placed from the widest area up. One reason is because the coil pot is usually more moist in this area and the handles are more likely to stay attached. If students make both handles at the same time and out of the same piece of clay they have a better chance of matching.



SCORE, SLIP & ATTACH THE HANDLES

Make sure students turn their pot and view all sides before deciding which sides are the best for the handles. Then have them mark their handle placement. These marks should be evenly spaced.

One of the most important reasons for adding handles – they look great, and they separate the pot into two planes which can be the front and back of the pot.

Score and slip the handles, then attach. Don't forget to stand up and look down at the top of the pot to make sure the handles are evenly placed.

project #2

COIL POTS

SGRAFFITO



CHOOSE A DESIGN, TRACE IT ON TO TRACING PAPER, AND THEN SCRIBBLE ON THE BACK WITH SOFT PENCIL

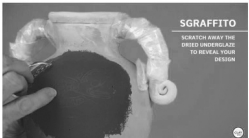
Have students research sgraffito designs used on pottery throughout history. They need to choose something that is “big, bold, black, and white”. This means a more graphic design without shading or gray tones will work best. Mayan and American Indians are a good resource for images.

Scribbling on the back with pencil allows the students to see the design better when they attach it to the pot in the next step.



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 DEFINE THE AREA USE THE TEMPLATE TO OUTLINE PARAMETERS FOR SGRAFFITO DETERMINE THE IDEAL AREA FOR YOUR SGRAFFITO DESIGN, THEN SPONGE ON 3 COATS OF UNDERGLAZE COIL - POT - 041A - 10	Have students outline the area where their sgraffito design will be. Then have them sponge on three coats of underglaze. We used AMACO Velvet Underglaze Velour Black (V-370), TIP: AMACO Velvets offer a variety of colors with a nice, velvety finish. The Velvets fire true-to-color as a Cone 05/06 underglaze or fired to Cone 6. Some colors remain true as high as Cone 10!
 SGRAFFITO SCRATCH AWAY THE DRIED UNDERGLAZE TO REVEAL YOUR DESIGN SGRAFFITO TIME CAREFULLY SCRATCH AWAY THE DRIED UNDERGLAZE COIL - POT - 041A - 10	Have students trace their design on the dried underglaze then use a variety of tools to scratch away their design. Using the side of the curved end of the carving tool works well.
 ONCE DONE WITH SGRAFFITO, ALLOW PIECE TO DRY THOROUGHLY THEN BISQUE FIRE TO CONE 04 COIL - POT - 041A - 10	Once students have finished their design encourage them to create their own border. This will enhance their design and more importantly makes it easier to glaze later.
project #2 COIL POTS GLAZING COIL	
GLAZING SUPPLIES TOOLS COIL - POT - 041A - 10	Tools used in glazing: • LG-10 Clear Glaze • CTL-41 Melon • TP-42 Granny Smith • Fan Brush • Round Brush • Hake Brush



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 CLEAN THE INSIDE USE A DRY BRUSH TO CLEAN OUT ANY SCRAPS AT THE BOTTOM CLEAN THE INSIDE OF THE POT TO REMOVE ANY SCRAPS INSIDE — LG-10 (LG-10-10-10)	Students can use a long handled dry brush to stir the inside bottom of their coil pot and empty the scraps stuck inside, otherwise they will end up in the glaze.
 POUR DC-10 GLAZE INSIDE SLOWLY ROTATE THE POT AS YOU POUR THE GLAZE BACK OUT POUR DC-10 (LOW-FIRE DIPPING CLEAR) INSIDE & SLOWLY ROTATE THE POT AS YOU POUR THE GLAZE OUT — LG-10 (LG-10-10-10)	Use a dipping clear glaze instead of a brushing clear on the inside because AMACO dipping clears are not as thick. If there is no dipping clear on hand, add a small amount of water to your brushing clear (LG-10).
 CLEAN WITH A DAMP SPONGE WIPE DOWN THE INSIDE RIM & EXTERIOR OF THE COIL POT WIPE COIL POT & CLEAN WITH A DAMP SPONGE — LG-10 (LG-10-10-10)	Wipe down the inside rim and the exterior with a damp sponge – this ensures the glaze will adhere properly. If there is oil from hands or dust on the surface, the glaze might crawl when fired.
 APPLY GLAZE TO SGRAFFITO DESIGN USE A ROUND BRUSH TO APPLY 2-3 COATS OF LG-10 GLAZE TO THE SGRAFFITO DESIGN APPLY 2-3 COATS OF CLEAR GLAZE TO THE SGRAFFITO DESIGN — LG-10 (LG-10-10-10)	Apply a clear glaze to the sgraffito design – we used LG-10. This clear glaze is very forgiving and two coats is usually enough for a glossy surface. Three coats will ensure that all areas are glazed. Apply glaze in a crisscross pattern (first coat vertical, second coat horizontal, last coat vertical) for even coverage. Let dry between coats.
 TAPE OFF BOTTOM APPLY MASKING TAPE AROUND THE BOTTOM OF THE POT APPLY MASKING TAPE AROUND THE BOTTOM OF THE COIL POT — LG-10 (LG-10-10-10)	Before you apply your choice of CTL glaze, we recommend putting masking tape around the bottom of the pot because the nature of crystal glazes is to flow, therefore this ensures enough space if the glaze does run.



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APPLY CTL-41

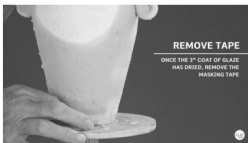
BRUSH ON 3 COATS OF A CTL GLAZE OF YOUR CHOICE

Crystal glazes (CTLs) are a good choice for student coil pots. Once fired the pattern a crystal glaze creates will hide an uneven surface.

Students should apply glaze in different directions – for example the first coat vertically, the second coat horizontally, and finish with another vertical coat.

It is important that students count to make sure they apply three **full** coats and that each coat is dry before applying another.

TIP: Reinforce the fact that students need to apply three coats of glaze around their designs! Sometimes they don't do this because it takes them a little longer but it is very evident after firing where they did not apply enough glaze.

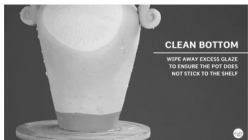


REMOVE TAPE

REMOVE THE TAPE THEN APPLY A TP GLAZE OF YOUR CHOICE

Once the last coat of CTL glaze has dried, remove the tape and apply three coats of Teacher's Palette glaze to the area where the tape was.

We used TP-42 Granny Smith.



CLEAN BOTTOM

CLEAN THE BOTTOM OF THE POT THEN GLAZE FIRE TO CONE 05

Once students have applied the third coat of Teacher's Palette glaze, have them use a damp sponge to clean all the glaze off the bottom of their pot.

TIP: Holding a large, damp sponge at a 45 degree angle will remove just enough. Removing all the glaze is important so the pot doesn't stick to a kiln shelf.



FINISHED PIECE

