Lesson - 1

LESSON PLANS
HAND-BUILT PROJECTS

Clay Coil

Artist: Leslie Allen, Age 10

Introduction

Hand-built ceramics have existed since 6000 BC and are still a fascinating and economical art form. Many of the first clay containers made by early civilizations were used in everyday life for cooking, drinking and storing food. It is unknown exactly when the skill of firing ceramic vessels in order to create more durable utility pieces was learned.

In this lesson, students learn how to make coils, an essential part of many hand-built ceramic pieces. As part of the lesson, students will use the coils to build various utility items. Coiling is a controlled way of building forms. Once mastered, students can expand on this skill to create a variety of ceramic utility and art forms.

References

"Coiled Pottery" By Betty Blandino, Chilton, Radnor, Pennsylvania, 1997.
"A History of World Pottery" By Emmanuel Cooper, Chilton Publishing, Radnor, Pennsylvania,1988.
Kid's Archaeology Magazine **www.dig.archaeology.org**
American Ceramic Society **www.acers.org**

Educational Objectives

This lesson provides opportunities for students to:
- Learn basic coil formation
- Understand how to make a coil base for a ceramic vessel
- Use coils to create height in a clay bowl and designs in a clay candleholder
- Learn historical use of hand-built clay vessels
- Create original artwork through creative self-expression

Teaching Tips

- Discuss archaeology as a career and ancient civilizations use of functional pottery.
- Show how smoothed coil pots were used for cooking in early times.
- Explain the difference between functional and decorative pottery.

More Teaching Tips and Glossary on back.

Materials

For 30 students
- 25 lbs. white low-fire clay
- Assorted small and medium round brushes
- Concepts™ colors as noted in step-by-step instructions
- Disposable plates to hold color
- Newspaper
- Paper towels
- Plastic knives
- Water containers
- Wire cutoff tool

Step-by-Step

Rolling Coils
1. With cutoff tool, cut clay into 1" square strips the size of a stick of butter.
2. Mold clay with hands into an oblong shape rounding off the square edges.
3. Place oblong shape on a flat surface and gently roll clay back and forth with the palm of hands to create a rounded coil.
4. Keep rolling coil until it is an even 1/2" thick in diameter from end to end.
   Note: Pushing too hard may flatten coil. If this happens, gently roll on flat area to reshape coil. Ideal coils are uniform in diameter.

Small Coil Tray / Coil Pot Base
1. Score then paint slip on connecting edges of coil and tightly spiral clay into a circle so that no space or gaps appear between coils.
2. To make tray or base larger, add coils by placing one diagonal cut coil end next to another and wet with slip. When desired length is reached, cut remaining loose coil from the base.

Tray Handles
1. Cut two identically sized coils to form handles; cut ends of coils diagonally.
2. Place handles on opposite ends of the tray and connect edges by scoring and painting with slip.

Coil Bowl
1. Using spiraled coil base, score the outer rim and wet with slip.
2. Using a rolled coil, score the side of the coil to be connected to base and wet with slip.
3. Connect coil to base, connecting scored edge to scored edge.
4. Once first coil is attached to base, continue adding layers of coils to bowl until the desired height has been achieved.
5. Gently smooth any gaps inside of bowl with fingers while supporting other side with your hand to avoid a lopsided bowl.

Coil Candle Votive
1. Use spiraled coil base.
2. Create coiled votive sides by rolling 4-6 identical size spirals.
3. Score outside rim of coil base and wet with slip.
4. Score bottom, right and left sides of spiral number one and wet with slip.
5. Connect spiral to base and repeat step 4 until all spirals are connected to base and sides.

Fire, Decorate, Finish

1. Once clay form is complete, use a sharp pencil to carve name or initials on bottom of piece.
2. Let clay completely dry and fire to cone 04 bisque.
3. Decorate with Concepts™ colors. Brush on IN 1001 Clear glaze or dip in CN 2000D Clear glaze. Fire to cone 06.

Clay Critters Projects

Lesson - 2

Clay Critters

Artists: Sarah Peters, Age 9
Pierson Gwynne, Age 7

Introduction

Butterflies, caterpillars and ladybugs are not only pleasing to the eye, they each serve a purpose. Insects are considered one of the most successful life forms on the planet with well over 1 million documented species. Creeping, crawling insects, often known as pests, are a vital part of the world's ecosystem. Entomology, the study of insects, is an important career as we look for eco-friendly ways to maintain healthy plants and crops. Snails, not to be confused as insects, are mollusks, as are octopuses, squid and slugs. Snails can be found in regular household gardens and in aquatic areas. Insects and snails can easily be observed in the classroom and related to studies regarding Life Science, Biology, Entomology and the Environment.

References

Visit the following Web sites for more information about insects and snails:

http://www.insectnet.com
http://www.insects.org
http://www.earthlife.net

Educational Objectives

This lesson provides opportunities for students to:

- Use knowledge of coils and scoring to create figures
- Learn how to form clay into spheres and egg shapes
- Learn clay detailing
- Learn about insects and entomology
- Study snails, life science and biology
- Create original artwork through creative self-expression

Teaching Tips

- When making worms or caterpillars, discuss the evolutionary process of the butterfly, the migration of the monarch or visit a butterfly farm.
- Discuss types and functions of insects and snails.
- Have students collect regional insects and garden snails and make a terrarium, and create creatures in clay to resemble those collected.
- Discuss careers related to insects and snails.

More Teaching Tips and Glossary on back.

Materials

For 30 students

- 25 lbs. white low-fire clay
- Assorted small and medium round brushes
- Concepts™ colors as noted in step-by-step instructions
- Disposable plates to hold color
- Newspaper
- Paper towels
- Pencil
- Plastic knives
- Toothpicks
- Water containers
- Wire cutoff tool

Step-by-Step

Snail

1. With wedged clay, roll coil 6-8" long.
2. Using scored coil, make a tightly wound spiral and join with slip to create snail shell.
3. Roll another coil 4" long for snail body.
4. Flatten lower half of body and shape head and tail.
5. Score area of body and shell to be joined and connect body to shell with slip.
6. Tip head up and poke holes with pencil or toothpick for eyes.

Beetle or Ladybug

1. Create small ball for head and large egg shape ball for body.
2. Slightly flatten bottom edge of head and body.
3. Score area of head and body to be joined and connect with slip.
4. Detail wings and markings with toothpick.
5. Eyes can be added with small clay balls or indented with toothpick or pencil.

Worm

1. Roll several small balls of clay, descending in size.
2. Slightly squeeze to flatten areas to be joined and score and join areas with slip.
3. Eyes can be added with small clay balls or indented with pencil or toothpick.


1.

Butterfly

1. Make two large clay balls 1" in diameter.
2. Make two smaller clay balls 1/2" in diameter.
3. Make 2" coiled butterfly body.
4. Flatten balls to create wings.
5. Score wings and body in areas to be attached and connect with slip.
6. Eyes can be added with small clay balls or indented with pencil or toothpick.


4.

Fire, Decorate, Finish

1. Once clay form is complete, use a sharp pencil to carve name or initials on bottom of piece.
2. Let clay completely dry and fire to cone 04 bisque.
3. Decorate with Concepts™ colors. Brush on IN 1001 Clear glaze or dip in CN 2000D Clear glaze. Stilt and fire to cone 06.

Slab Box Projects

Lesson -3

Slab Box

Artists: Trevor Phelps, Age 10
Pierson Gwynne, Age 7

Introduction

Slab artistic and functional pottery has existed for thousands of years, and in many cultures functioned as a tablet for symbols or the written word. Such fired slabs have been a key for archeologists as they define the history of early civilizations.

Slabs have been used for floor coverings, roof tiles and decoration for ancient temples. It is unknown when slabs were first connected to make vessels, but remnants of ceramic slabwork can be found in most cultures.

Modern artists use slabs to create dinnerware, mosaics, pillow forms, vases, jewelry, cylinders and many other useful and decorative items. Slabs allow for uniform thickness and a smooth surface for decoration. Slabs can be embossed for texture using common objects such as fabric, plant life and coins. Simply spray slab with a releasing agent and roll or press item with texture on the outside layer of clay slab; lift off item and repeat.

References

The "Kids–N–Clay" Ceramics Book, created by Kevin Nierman, Tricycle Press, Berkeley, California
www.kidsnclay.com

Educational Objectives

This lesson provides opportunities for students to:

- Learn the slab method of creation with clay
- Join perpendicular walls to a flat surface
- Create three-dimensional shapes from clay
- Make a container that will hold food or liquid
- Learn spatial relationships, rectangular side must fit the circular base
- Create original artwork through creative self-expression

Teaching Tips

- Have students emboss slabs with plant life and discuss how fossils are made.
- Using a large flat decorating surface, have students create art from different art movements, including Impressionism, abstract, etc.

More Teaching Tips and Glossary on back.

Materials

For 30 students

- 1" dowels or rolling pins for rolling out clay
- 25 lbs. white low-fire clay
- Assorted small and medium round brushes
- Concepts™ colors as noted in step-by-step instructions
- Disposable plates to hold color
- Newspaper
- Paper cups
- Paper towels
- Pencil
- Plastic knives
- Rulers
- Tissue paper
- Toothpicks
- Water containers
- Wire cutoff tool
- Yardsticks for clay guides

Step-by-Step

1. Roll clay 1/4" to 3/8" thick with yardsticks on each side as a guide. Rolling clay inside the two yardsticks will result in slabs even in thickness and equal to thickness of yardsticks.
2. Using the wide end of a paper cup as a pattern cut 2 circles, one for cylinder box base and one for lid. Set aside.
3. To finish the lid, cut a smaller circle in clay using the small end of the paper cup as a guide. Score and connect larger and smaller lids with slip. This will be the inside of the lid and will fit onto the cylinder with the smaller inner circle holding it in place.
4. Using a spiral of clay or round ball of clay, create a clay knob handle for the top of the lid. Score and attach knob in outside center of lid with slip.
5. To create the sides of the vase, roll another slab. Trim to 3" wide and long enough to go around the circumference of the circle.
6. Stand 3" piece of clay vertical on outer edge of circle base, score and join to base with slip. Slightly overlap sides of vertical wall of vase, score, slip and press sides together to complete a cylinder.
7. Place lid on top of cylinder and check fit. Make any adjustments by gently molding lid to fit base.
8. Gently smooth out any connected or rough areas on lid or cylinder base with slip and fingers.
9. Lay a piece of tissue paper between lid and box and let dry together.

Fire, Decorate, Finish

1. Once clay form is complete, use a sharp pencil to carve name or initials on bottom of **both** pieces.
2. Let clay completely dry and fire to cone 04 bisque.
3. Decorate with Concepts™ colors. Brush on IN 1001 Clear glaze or dip in CN 2000D Clear glaze. Stilt and fire to cone 06.

Note: The flat surface of this piece allows for a variety of decorating techniques, including stencils, stamps, abstract faces, intriguing designs related to holidays, etc. Use Contact® paper for one-time use stencils – precut with hearts, stars, etc. Peel and place on ware; paint with sponge or brush.

Cookie-Cutter Projects

Lesson -4

Cookie-Cutter

Artist: Trevor Phelps, Age 10

Introduction

Candleholders are important handcrafted items. Early on, people learned to create candleholders that would allow the candle to burn out and not catch fire. Ceramic material is such a substance — it will protect surfaces from the candle flame and melted wax. Of interest, cooled candle wax will simply pop off of glazed ceramic. This makes a useful easy-to-clean gift. *NOTE: Fire can be dangerous! Explain to students the related safety issues and that an adult must be present when a candle is lit.*

Ceramic bells are fun to make with clay triangles and a cookie cutter decoration. Bells traditionally ring in holidays and special occasions, announce dignitaries and are part of solemn events. Ancient Chinese cultures created ceramic or earthenware bells for religious ceremonies. The bells were personalized and identified with special markings. Differently sized bells will ring in different tones.

How does a ceramic bell make music? Inside of the cone, there is a clay loop fired into the bell. A small piece of fine chain or string attaches a glass bead. This creates the "clappers." When the bell is "rung," the bead hits the sound chamber of the bell (the cone) and the bell sounds. How the sound is defined depends on the surface of the clay. If the clay is unglazed but fired, sound will be absorbed into the cone, resulting in a dull, short sound with each hit. If the cone is glazed, sound will bounce off the surface and the tone will be higher and clang. Because bells make one sound each, a bell choir is made up of different bells of many sizes which are lined up and played in sequences, resulting in beautiful melodies.

Educational Objectives

This lesson provides opportunities for students to:

- Learn the slab method of creation with clay
- Repeat design and design organization
- Explore sources of light and the importance of the candle in history
- Explore bells, including materials, construction and famous bells
- Create original bells that function
- Resource bell choir music; arrange children's bells tonally

References

The "Kids–N–Clay" Ceramics Book, created by Kevin Nierman, Tricycle Press, Berkeley, California
www.kidsnclay.com

Materials

For 30 students

- 1" dowels or rolling pins for rolling out clay
- Assorted cookie cutter shapes
- Assorted small and medium round brushes
- 25 lbs. white low-fire clay
- Concepts™ colors as noted in step-by-step instructions
- Dental floss to hang glass bead inside each bell (after bells are finished)
- Disposable plates to hold color
- Newspaper
- Paper cups
- Paper towels
- Pencil
- Plastic knives
- Rulers
- Tissue paper
- Toothpicks
- Water containers
- Wire cutoff tool
- Yardsticks for clay guides

Step-by-Step

Candleholder

1. With cutoff tool, cut clay into 3" square block.
2. Wedge and mold clay into a flattened circle.
3. Roll clay 1/4" to 3/8" thick with yardsticks on each side as a guide. Rolling clay inside the two yardsticks will result in slabs even in thickness and equal to the thickness of the sticks.
4. Using the bottom of a paper cup as the pattern, cut out a circle. Cover the inverted paper cup with slightly dampened paper towel. Place the clay circle on the bottom of the cup. This becomes the form for shaping the candleholder.
5. Cut out several cookie cutter shapes. Roll more clay if necessary.
6. Slip attach the cutouts to the base, overlapping to fit if necessary. Let the candleholder dry until leather-hard on the cup. Remove and finish drying.

Bell

1. Roll slab as above, using yardsticks as guides.
2. Cut out a wide triangle shape.
3. Roll a thin coil approximately 3" long. Pinch the two ends together and make a loop. Lay the loop in the top of the triangle clay shape.
4. Fold the triangle, loop at top, into a cone or teepee shape. Stand upright.
5. Cut out cookie cutter shapes. Roll more slab clay if necessary.
6. Personalize these shapes with an identifying mark. Press a leaf, coin, lace, button or some other object into the clay to emboss it.
7. Slip attach the cutout to the top of the bell.

Fire, Decorate, Finish

1. Once clay form is complete, use a sharp pencil to carve name or initials on bottom or inside of piece.
2. Let clay completely dry and fire to cone 04 bisque.
3. Decorate with Concepts™ colors. Brush on IN 1001 Clear glaze or dip in CN 2000D Clear glaze.
5. Stilt or dryfoot and glaze fire to cone 06.
6. Once fired, attach glass bead to loop inside bell with dental floss.

General Instructions

Teaching Tips

Teaching Tips

More Teaching Tips:

Ceramic studios and casting information is available through Duncan Distributors and Ambassadors. Please feel free to call the 1-800-CERAMIC Customer Service number for assistance.

History & Geography

Prepare a historical overview of utility pottery and civilizations, seen first in early Mesopotamia, Egypt and Crete.

- Earliest pottery came from cave dwelling communities around 6000 BC. Pottery was undecorated and made from local red and brown clays.
- Painted pottery using natural pigments from the region first showed up around 5000 BC.
- Ceramic pottery exists in every civilization. Select a culture and study its use of ceramic vessels and art, i.e., Far East, Ming Dynasty, Japan and Japanese Tea Ceremony, Europe, Moorish Spanish Tiles, Italian and Mexican Talavara.

Clay, Earth and Color

Clay, water, hands and skillful coordination are required for handbuilding. This relaxing art form encourages students dexterity and creativity. Clay is a form that can take on any shape that can be imagined, leaving the artist's thumbprint in the fired clay. Fired clay art and vessels are timeless. Once fired and properly stored, ceramic objects can last for thousands of years.

- Read how clay is formed in the earth, and discuss elements found in clay.
- Discuss the color wheel and color relationships.

Ceramic Firing

Discuss ancient and modern firing techniques.

- Firing transforms dry clay to a hardened permanent form.
- Early pottery firings most likely came from the hearth or "campfires" of cave dwellers. This crude firing method does not allow for very high temperatures and does not allow for the use of a fired glaze.
- Kilns are chambers created especially to fire clay from its soft form to a hard bisque form. The first kilns were made from stone and clay, and fired by wood.
- Wood-burning kilns still exist today in many underdeveloped areas.
- Modern kilns come in two types: those fueled by gas or electricity.
- Explain process of loading and firing a modern electric kiln and use of pyrometric cones to measure temperature.

Glossary of Terms

Bisque: Unglazed ceramic pieces fired at a low temperature.
Bisque Firing: The first firing of a ceramic piece. Prepares the surface for applying glaze.
Body: A blend of clays that harden when fired in a kiln.
Greenware: Unfired clay pieces. Fragile until fired.
Casting: The process of pouring liquid clay into a mold.
Ceramics: The heating of materials that come from the earth to create functional and decorative ceramic objects.
Clay: Slip that has hardened.
Coil/Coiling: Rolling out long pieces of clay and joining the pieces together to build objects such as pots and sculptures. Refers to a handbuilding technique.
Cone: A heat-measuring device that is used when firing a kiln to react to time and temperature.
Cut-off Tool: An instrument used to cut off pieces of clay.
Dipping: Quickly plunging a bisque-fired piece into a container of liquid glaze to coat.
Firing: The process of heating ceramic products in a kiln using varying degrees of heat.
Glaze: A coating that melts and bonds to a clay body when fired in a kiln, giving the surface a glass-like appearance.
Glaze Firing: The second firing of ware during which glaze melts onto and coats a clay body.
Handbuilding: Creating objects by hand rather than on a potter's wheel. Coiling and slabwork are examples of handbuilding techniques.
Kiln: An oven designed to fire pottery.
Low-Fire: A range of firing temperatures for clay and glazes that doesn't exceed 1944° F.
Mold: A plaster form that is used to shape liquid clay (slip).
Score: To scratch tiny crisscross lines on areas of greenware that will be joined with clay slip.
Slab: A flat piece of clay rolled out to about 1/4" thick. Used in handbuilding techniques.
Slip: The liquid form of clay (Clay mixed with water makes slip).
Underglaze: A ceramic color used under a glaze.

Duncan University Credits

Complete the educational in-service session with a Duncan Ambassador for the Colorworks™ Class Projects 1-4 and receive 1 Duncan University credit in the Duncan Education System.

Caring for Clay

Cutting Clay

1. Cut off the amount you want to use with cutoff tool. Pull handles straight outward until the string is tight.
2. Place cutoff tool behind clay and pull, crossing cord to slice off a piece.


Cutting

Wedging Clay

Clay should be wedged before use; wedging conditions clay by creating a uniform texture. Wedging also removes any trapped air pockets.

1. Cut clay to be used with cutting tool in two equal parts.
2. Forcefully throw the clay onto a work surface several times.
3. Knead clay together.
4. Repeat process until clay appears uniform.


Scoring

Scoring Clay

Scoring is done to attach clay pieces together.

1. Use a fork to scratch the two areas to be attached.
2. Brush slip on scored, "scratched" areas.
3. Firmly press the two pieces together, and seal edges by smoothing clay around the newly joined area.


Marking

Marking Clay

1. To identify your projects, use a pencil or wood skewer to scratch name, initials, date or special markings on bottom of piece.

Storing Clay

1. Moist clay is best stored in tightly sealed plastic bag or container.
2. Sculpture in progress should be stored in a moist environment. It may be stored for several days when kept moist in a sealed plastic bag.

How to Paint Greenware

1. Ceramic underglazes, including Duncan E-Z Stroke® Translucent Underglazes and Cover-Coat® Opaque Underglazes, may be applied to ceramics in a greenware stage.
2. When applied to leather-hard clay, these pigment and clay-based products fire into the clay during a cone 04 bisque firing.
3. Cover-Coat® underglazes are velveteen in appearance when fired to cone 04.
4. E-Z Stroke® underglazes produce a translucent watercolor effect.

How to Make Low-Fire Ceramic Bisque

1. Clay pieces should be completely dry before putting in kiln. Allow hand-built pieces 3-5 days to air-dry, depending on humidity in area. Wet clay pieces can burst during firing.
2. Place a cone 04 self-supporting cone on each kiln shelf.
3. Place a cone 04 bar kiln in kiln sitter.
4. Place pieces directly onto kiln shelves 1/2-1" apart, allowing for air circulation during firing.
5. Close kiln, set temperature and fire kiln according to kiln manufacturer's instructions.

How & Why to Paint Bisque?

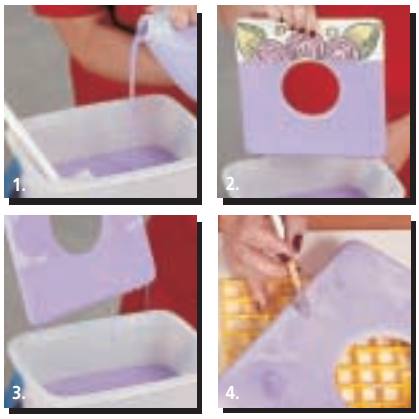
1. Bisque is fired clay. This form is a much more durable and safe surface for a child to paint on. Breakage is greatly reduced from greenware or unfired stage. The colors will be much brighter and truer on the whiteness of the bisque. "Mistakes" can simply be washed off with water!
2. Squeeze out quarter-sized puddles of Concepts™ colors onto disposable plates.
3. Paint color as desired with an assortment of brushes. Heavier application of paint results in a brighter piece when fired. Thin color for a wash. Techniques include: sponging, stenciling, spattering, dotting, etc.
4. Dry pieces thoroughly.
5. Dip in CN 2000D Clear glaze for final finish.
6. **Stilt** (set the pieces onto the prongs of a stilt in the kiln) **or dryfoot** (wipe the glaze off the bottom with a damp sponge before setting on the kiln shelf). Fire to cone 06.

General Information

How to Dip with Clear Glaze

Use CN 2000D Clear glaze on fired bisque and painted bisque pieces.

1. Pour glaze into tank and mix.
2. Dip 1/2-3/4 ware; quickly lift out.
3. Dip remainder of ware; overlap slightly.
4. Touch up with a brush as needed.
5. These pieces MUST be placed on stilts in the kiln. Fire to cone 06.



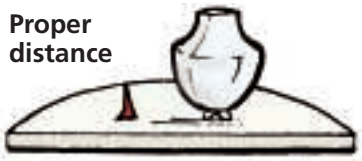
Choosing and Using Cones

The Duncan Ceramic products in the color guide fire from cone 06, 1828° F to cone 6, 2246° F. Ceramic firing is similar to baking in an oven with much hotter temperatures. Since hot ceramic kilns cannot be safely opened during firing, pyrometric cones are used to measure the heat absorbed by the ware. Pyrometric cones are numbered to correspond to a desired cone firing level – the lower the cone number, the cooler the firing.
A proper firing will cause the cone to bend at an even 90° angle.

Pyrometic self-supporting shelf cone

Too close

Proper distance



Self-supporting cones with desired cone number are placed on each kiln shelf before firing. Since cones bend over during firing to indicate heat absorbed, it is important to keep them at a safe distance from the ceramic piece in kiln

Small bar cones are used in a kiln-sitter. A kiln-sitter is an automatic mechanical device that shuts off the kiln when the cone bends due to the desired absorption of heat.

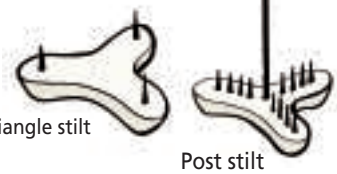
Bar cones

Using Stilts

Specially designed ceramic stilts are placed under all glazed ware to keep the glaze and art piece from adhering to the kiln shelf.

Note: Bisque firings without glaze do not require stilts.

Bar stilt

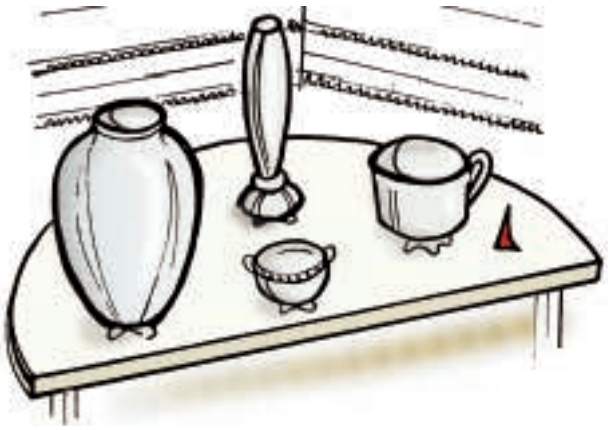


Triangle stilt

Post stilt

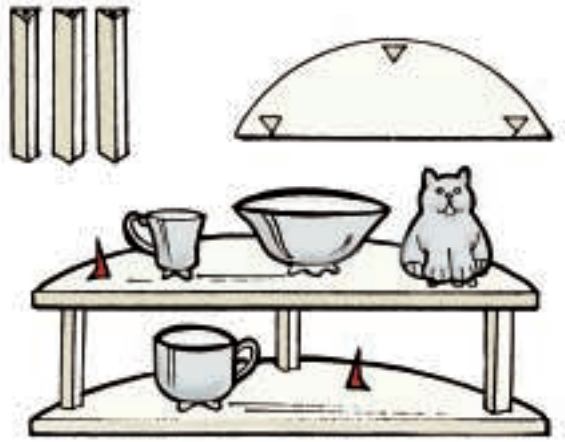
Loading Kiln Shelf

- Kiln shelves are round or half rounds
- Pieces placed 1" from kiln wall
- Pieces placed 1/2-1" apart (do not overcrowd kiln)
- Repeat instructions for each shelf



Add Shelves, Fire Kiln

Arrange same-sized posts in a triangle to support kiln shelf; place shelf on posts; repeat for each shelf added.
Close kiln lid and fire kiln to desired cone per kiln manufacturer's instructions.



Unloading Kiln

- Open kiln when cool to touch
- Remove pieces only when cool to touch
- Grind off stilt marks with stilt stone or dremel tool
  Important: wear eye protection.

DUNCAN PRODUCT FIRING GUIDE

Cone 06 Coolest Approx 1859°F 1015°C	Cone 04 Approx 1940°F 1060°C	Cone 5-6 Hottest Approx 2246°F 1230°C
Low Fire Cone 04 Bisque	Low Fire Clays, Earthenware and Greenware	High Fire Clay, stoneware, porcelain and china
E-Z Stroke™ Translucent Underglazes	E-Z Stroke™ Translucent Underglazes	E-Z Stroke™ Translucent Underglazes
Cover Coat® Opaque Underglazes	Cover Coat® Opaque Underglazes	Cover Coat® Opaque Underglazes
Concepts™	French Dimensions™	Concepts™ Underglaze for Bisque
French Dimensions™	Courtyard™ Art Glazes	French Dimensions™
Envision™ Glazes		Envision™ Glazes
Courtyard™ Art Glazes		Courtyard™ Art Glazes
Crystals™ & Crackles™ Glazes		High Fire Art Glazes
Low Fire Clear Glazes		High Fire Clear Glazes
Satin Glazes		Satin Glazes

CONE LEVEL

Cooler — Hotter

019 018 017 06 05 02 5 10

*For more information on cones and firing, visit Orton Cones at **www.orton.ceramic.com**

Duncan Enterprises
5673 East Shields Avenue
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www.duncan**ceramics**.com
PR# 006E