

— EDUCATOR GUIDE —

CERAMICS IN THE CLASSROOM



G R O U N D S F O R S C U L P T U R E



WELCOME EDUCATORS

We are excited you are interested in learning more about the clay arts with your students. In this guide we will explore the basics of clay, the role it has played in our society over time, and its global influence. Students will be introduced to a selection of artists that have impacted ceramics, and gain quick access to resources gathered by museum educators that are interactive and informative.

As you explore together, let this guide be a tool to unlock skills such as critical thinking, communication, collaboration, and creative expression, which we hope will enrich students' lives.



CLAY BASICS

What are ceramics or clay arts?

Clay making is one of the oldest forms of artmaking. Ceramics and clay arts come from the forming and firing of clay. When clay is still soft, the artist can mold and shape it into objects that include art, sculpture, dishware, medical devices, and more. Once the clay hardens it is then heated to a very high temperature, also known as being “fired”. In this guide you will explore this art and how it is practiced around the world.

What is a ceramic artist?

A ceramic artist, or ceramicist is a person that uses clay and clay making techniques such as working on a wheel, hand building and sculpture. Cultures that practice this artform can be found around the world creating and sharing their works with others.

Where does clay come from?

Clay is found naturally in the earth near streams and riverbanks. It occurs in regions where rivers and streams currently are or were once present and is made up of years of sedimented mineral and organic matter. Clay comes in a variety of types based on the mineral make up and region it is from.

Types of Clay

Each clay type has its own benefits, properties, and characteristics. Through trial and error over centuries, cultures across the globe have contributed to the techniques and ways that certain types of clay are used. These clays are earthenware, stoneware, porcelain, ball clay and fire clay.

EARTHENWARE

one of the earliest clays used by potters, very porous, course texture

STONEWARE

less porous, great for function ware, strong Porcelain- fine particles, can be shaped to thin forms, requires high temperatures, low porosity

BALL CLAY

combined with other clays, made of fine particles and clay crystals, can be used to make slip

FIRE CLAY

combined with other clays, very high firing temperature, used to make kiln bricks

SLIP

a liquid form of clay that can be used as a “glue” to combine pieces of clay or pour clay on a flat surface

SHAPE & SCULPT

Clay Shaping Techniques

There are many ways to create with clay. Here are some techniques you can explore:

COILING

a method where you form clay into a preferred cylinder size by rolling it and use it to build walls for sculpture and pottery

SLABS

are angular clay shapes used for construction, walls, or support sculpture

MOSAIC

a combination of tiles, materials, and ceramics pieces that all come together to create an image, pattern, or collage

WHEEL THROWING

process of forming clay using a constant rotation

HAND BUILDING

a clay building technique where you form clay with your hands without a throwing wheel



COILING



SLABS



MOSAIC



MOSAIC



WHEEL THROWING



HAND BUILDING

TOOLS USED IN CERAMICS

Tools for clay making may depend on where you live, the materials you want to use, and the desired effect. You may want to use a store-bought tool designed for smoothing, like a roller, or one that can assist in sculpting and carving detailed design. Other tools can assist the artist in creating a consistent line or add natural designs, such as a leaf imprint from your local environment. Look around your environment to see what you can find, the possibilities are endless.

Burnishing Stone or Tools

This ancient technique that is done by using a stone or tool on hardened pottery to encourage the creation of a smooth surface, and a satin to shiny finish without using glaze. This can be used as a finishing technique.



FINISHES

GLAZE

Glaze can be applied before and after the firing process. Glazes are a type of liquid suspension of finely ground minerals that are applied onto the surface by brushing, pouring, or dipping. After the glaze dries, it is fired to the temperature so high that it causes the glaze ingredients to melt together to form a glassy surface. Glaze is applied for decorative or sealing purposes. Glazes can also be created with natural ingredients that are boiled together to create a resin or stain to color the surface of a pot. Some traditional types of glazes are Ash, Feldspathic, Lead, Salt, and Tin.

BURNISHING

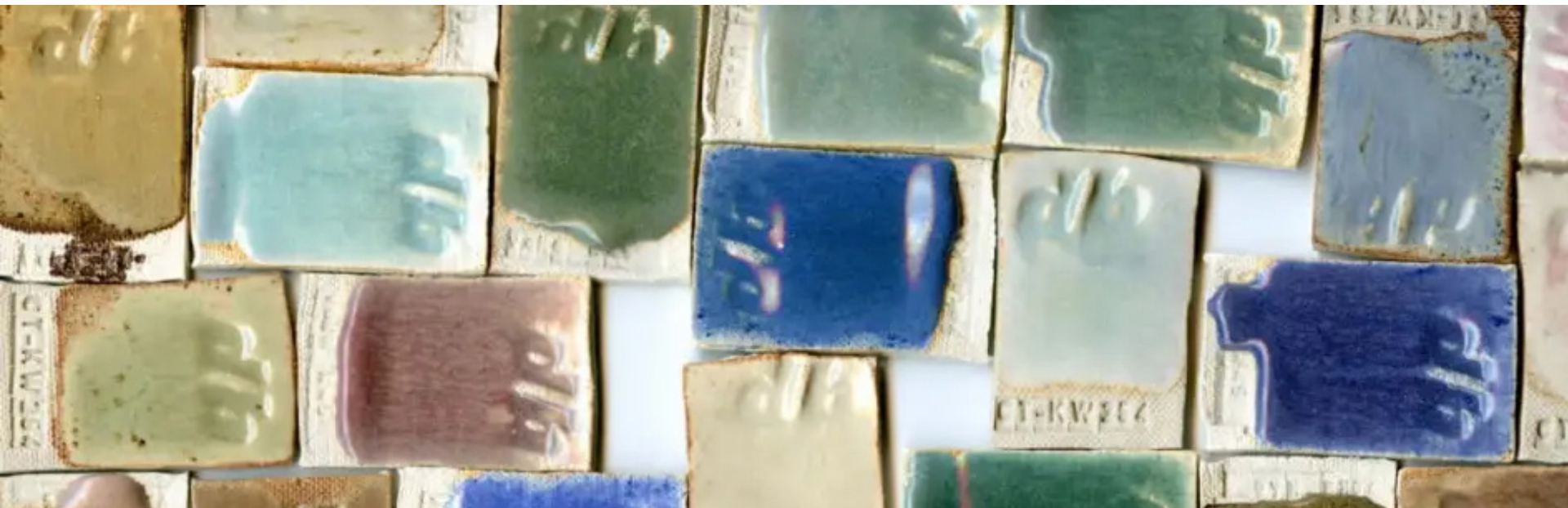
Burnishing clay is a technique that gives pottery a smooth soft sheen without using a glaze. To do so, the artist rubs the clay with a hard object, like a smooth pebble. The rubbing action compresses down the surface particles of clay, aligning the clay platelets, creating a shiny reflective surface.



With glaze finish



Without glaze finish



FIRING CLAY

The process of firing or hardening of the clay with elevated temperatures occurs in a variety of ways. Firing clay is important. If not, it will be fragile and usually crack easily. The firing process changes the structure of the clay, bonding the clay particles together making it stronger, a more permanent ware. Different techniques have been created over time based on the needs of the artisan or the materials available. Here are some examples of how clay is processed:

KILN

A kiln is a type of oven, that uses a source of energy to produce temperatures sufficient to complete a process of hardening, drying, or chemical changes in pottery or ceramics. Kilns can be electric, wood burning, pit/barrel, saw dust, or soda firing and can be used to create ceramic objects, tiles, and brick. A pottery kiln normally can get somewhere between 2100 and 2300 °F, although the required temperature varies from the material you are using.



RAKU

Raku is a Japanese low firing technique using glazes and firing other materials to create textures and surfaces designs.



CLAY: A GLOBAL LANGUAGE

Throughout the globe there are many ways that people have used clay in their everyday lives. Clay can be used to communicate culture, record events, commemorate spiritual events, or simply for utility.



Minoan Storage Jar

Utility

Clay is incredibly versatile. Throughout history it has been used for a variety of everyday things. From creating tools for grinding, to acting as an early form of refrigeration, to cooking and storage pots, clay has been used for everyday life and in architecture in many cultures. In our current society, we still use clay vessels in the form of ceramic bowls, cups and storage containers. Encourage students to look for ceramic wares in their homes and explore the ways they are used.

Matriarch Tradition

In Nigeria, clay and pottery is reserved for women. This wisdom is passed down from generation from the oldest to the youngest. Girls learn with adult women at a young age. Over time, each woman defines their own technique and style for their own pottery.



Storytelling

Clay vessels and pottery were also used to visualize and share stories, experiences, or actions. In Ancient Greek society, ceramicists created beautiful vessels that depicted myths and stories. These images were painted on the surface of fired pottery. See page 13 for an activity that gives students an opportunity to make their own story.



This Maya Vessel was once used to drink sacred hot chocolate

Ritual and Ceremony

Clay and pottery can play a huge role through a person's entire life. For example, pots and vessels can be used in spiritual ceremonies and social events such as births, weddings, and funerals. In ancient Mayan culture, clay mugs and other clay drinking cups were made to consume chocolate drinks for their sacred practice.

CERAMIC HISTORY THROUGH A GLOBAL LENS

Use the map to locate the different styles of pottery and clay sculptures around the world

1. **Isami Enomoto** (Hawaiian Mosaic Mural): [historichawaii.org/2018/05/22/communities-saving-places-community-collaboration-re
sults-in-a-new-home-for-the-enomoto-labor-murals](https://historichawaii.org/2018/05/22/communities-saving-places-community-collaboration-results-in-a-new-home-for-the-enomoto-labor-murals)
2. **Acoma Pottery** (New Mexico, United States): mirappraisal.com/12-01-16/2016/07/01/the-history-and-legacy-of-acoma-pottery
3. **Drake the Pottery** (African American): philamuseum.org/collection/object/91457
4. **Taino Pottery** (Dominican Republic): invaluable.com/auction-lot/taino-pottery-bowl-from-dominican-republic-pre-col-533-c-f55437fa90
5. **Jamaican Pottery**: nationalgalleryofjamaica.wordpress.com/category/ceramics
6. **Incan Sculpture**: ticketmachupicchu.com/inca-pottery
7. **Dutch Tiles**: regtsdelfttiles.com/set-antique-dutch-delft-wall-tiles-with-sea-creatures-and-boats-18th-century.html
8. **Algerian Pottery** (North African): janestreetclayworks.com/2012/11/09/kabyle-pottery-from-northeastern-algeria
9. **Nigerian Pottery**: veniceclayartists.com/tag/african-sculpture
10. **Zulu Pottery**: lisasettegallery.com/artist/mncane-nzuza
11. **Kutch Pottery** (India): masters-craft.blogspot.com/2015/09/crafts-of-india-traditional-pottery.html | aadvikaxportus.com/pottery.html
12. **Han Dynasty** (Chinese Pottery): comuseum.com/ceramics/tang
13. **Japanese Raku Pottery**: asia.si.edu/object/F1911.389
14. **Indigenous Pottery** (Australia): milenaolesinska77.medium.com/thancoupie-australian-art-bfa6a7166d63



CLAY VOCABULARY

WORD SEARCH

Use the word search to explore more clay terms

C	F	Z	N	J	B	T	G	C	C	W	X	W	U	S
A	E	L	K	U	D	Y	L	I	L	C	D	X	L	K
Y	I	R	K	O	I	A	A	A	C	J	O	A	Z	D
K	R	A	A	S	A	L	Z	S	V	U	B	Y	D	M
O	R	E	W	M	T	C	E	O	N	J	S	L	L	Q
J	J	M	T	D	I	F	R	M	D	R	A	K	E	Y
H	I	Z	H	T	V	C	X	W	Q	B	T	A	L	G
V	Z	Y	L	F	O	V	I	H	X	K	I	L	O	X
A	G	T	R	N	T	P	X	S	A	M	Y	X	O	R
P	O	N	L	B	K	A	U	M	T	D	T	U	A	Q
R	A	E	W	E	N	O	T	S	A	I	P	X	X	F
G	A	Q	B	V	B	V	R	X	V	Q	W	R	L	J
O	I	E	L	B	Q	S	Q	X	G	J	D	N	C	F
V	E	S	S	E	L	R	U	L	P	Z	E	V	N	I
Y	M	O	X	J	Q	U	T	G	J	B	T	A	H	N

CERAMICIST

POTTERY

VESSEL

CLAY

STONEWARE

DRAKE

GLAZE

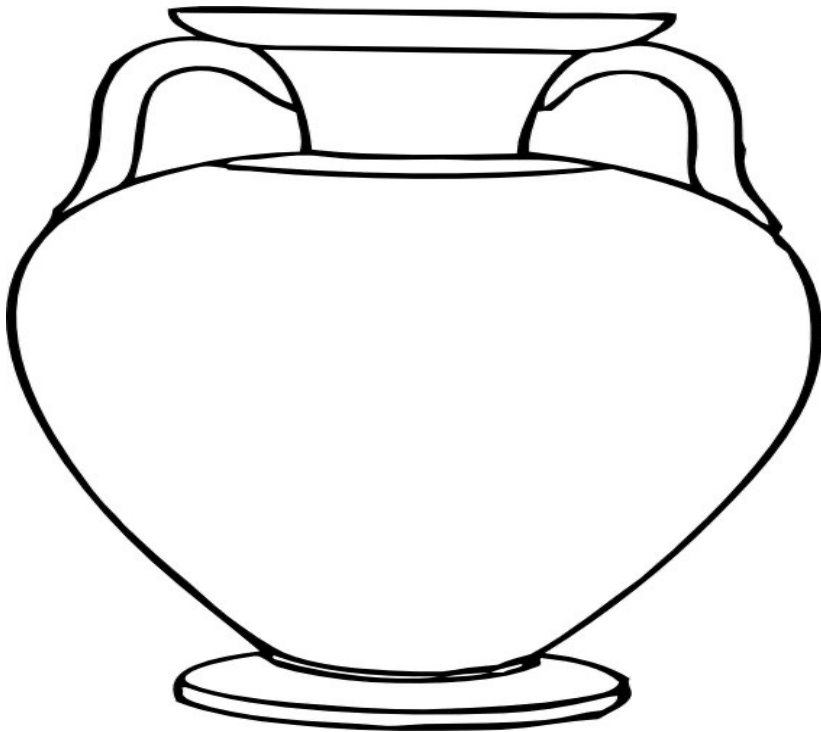
KILN

MOSAIC

SLAB

CREATE YOUR OWN **STORY POT**

Clay and pottery can tell a story through the designs, colors and shape. Create your own story pot below by using designs and colors that are personal to you. Write about your story below.



What is your story pot about?



What do these designs or colors represent?

MEET THE ARTISTS

Ceramic artists around the world use clay to communicate their expressions and perspectives to the world. Art is a great way to learn about the planet we share.

Check out these contemporary ceramic artists from around the world that use clay, ceramics, and clay sculpture to discuss issues important to them and their communities.



THANAKUPI, GLORIA FLETCHER

Thanakupi as a visual artist and potter from North Queensland, Australia. She incorporated stories from her Aboriginal culture into her visual ceramic art.

veniceclayartists.com/thanakupi-indigenous-australian-ceramic-artist



NIDHU JALAN

Nidu Jalan is a visual artist from India that uses clay and installation to explore concepts of spirituality, metamorphosis and transmutation.

nidhijalan.com/index.html

indianceramicstriennale.com/nidhi-jalan-need-better-images



ROBERTO LUGO

Roberto Lugo is a potter, educator, poet, public speaker, and community activist whose work and research explores issues of race, poverty, obesity and inequality. His ceramic vessels appropriate forms and ornament from royal porcelain manufacturers and recontextualize their visual iconography to pay homage to underrepresented people of color.

tyler.temple.edu/faculty/roberto-lugo
robertolugostudio.com



WINNIE OWENS HART

Winnie Owens-Hart is a cultural researcher, author, ceramic artist, and documentary filmmaker. Her life's work and passion revolve around the creative process, the historical significance of clay workers globally, and the preservation of all aboriginal ceramics.

jmkac.org/artist/owens-hart-winnie
aicad.org/winnie-owens-hart



NITZA WALESKA ROSARIO

Nitza Walesca creates innovative vessels based on traditional forms and adorns them with Taino symbols. Her indigenous Puerto Rican, Taino heritage serves as a strong inspiration.

theclaystudio.org/staff-and-board/nitza-rosario
theclaystudio.org/exhibitions/nitza-rosario-exhibition
brackers.com/project/nitza-walesca-sierra
youtube.com/watch?v=KZFq86vki_E

EDUCATOR CLASSROOM RESOURCE GUIDE

Grades 1-3: Coil Insects

Students make a series of coils or wormlike shapes to create their own insect sculptures. Add legs and an abdomen to create their own insect.

Curriculum Connections: Insects, Insect Anatomy, Habitats, Biomimicry

Grades 4th-6th: Relief Landscape Tiles

Students create a square tile where they can sculpt their local landscape into the clay. Students can also get premade tiles to draw on.

Curriculum Connections: Exploring your community, Social Studies, Topography and Earth Processes

Grades 7th-9th: Storytelling Mosaic

Students can gather materials and other tiles to glue together as a mosaic. Each item can tell a story and students can write about each of the objects they chose, then share.

Curriculum Connections: Writing Narrative, Reading Literature, Creative Processes

Grades 10th-12th: Hand Building: Affirmation Box

Students will learn about hand building and create their own ceramic box using slab building techniques. Students can write a positive word, phrase, lyric or quote that is positive.

Curriculum Connections: Wellness, self-reflection

veniceclayartists.com/the-raku-pottery-technique
artmuseum.princeton.edu/collections/objects/40908
thepotterywheel.com/burnishing-clay/#bone
artsandculture.google.com/asset/vessel-ladi-kwali/QQHBP4sdTQxK3Q?hl=en
awarewomenartists.com/en/artiste/ladi-kwali
wheelandclay.com/blog/coiling-pottery
wheelandclay.com/blog/handbuilding-pottery
a-n.co.uk/an40/fortieth-feature/40-years-40-artists-magdalene-odundo
blog.paperblanks.com/2021/01/10-questions-with-camille-beckles
tactilematter.com/about
keneshasneed.com
contemporary-african-art.com/contemporary-african-pottery.html
rct.uk/collection/200000/yabba-pot
africanamericanpottery.weebly.com/history-of-face-jugs.html
chipstone.org/article.php/537/Ceramics-in-America-2013/African-American-Face-Vessels:-
pbs.org/video/history-detectives-face-jug
blackpotter.com
japanobjects.com/features/rakuware

AFFIRMATION BOX

In this activity students can explore the importance of their voice and its relationship to language. Through language we can communicate and uplift our culture, values, and other forms of expression.

Students will use clay hand building to create their own affirmation box using words and language that enriches their self-esteem. This activity can be a fantastic way to introduce the concept of language justice into your classroom and curriculum.

Activity

Students will use slab making to create their own box. Students will also use rubber lettering stamps to stamp positive words or phrases onto their box. Students can use a template prior to working with the clay to plan out their box (*see below, Grade: 1st-12th*)

Guiding Questions

- What is your relationship with language?
- What is your favorite saying?
- Are you influenced by multiple languages?
- How can positive words help our self-esteem?

Supplies

Air dry clay, clay tools, newspaper, plastic wrap, makers, drawing paper, box template markers, smocks, chip board, blow dryer

References

juliannakunstler.com/ceram1_slab.html
youtube.com/watch?v=hLQNo3pK9GU
simmonslis.libguides.com/c.php?g=1102223&p=8073779

Vocabulary

SCORING

to score a pot or piece of clay means to scratch hatch marks on it as part of joining clay pieces together

SLAB BUILDING

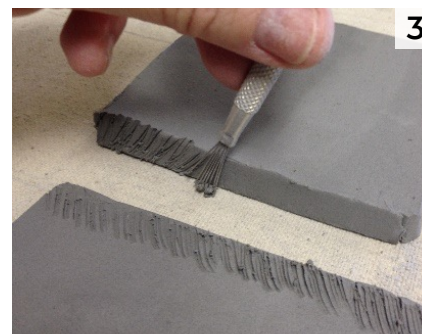
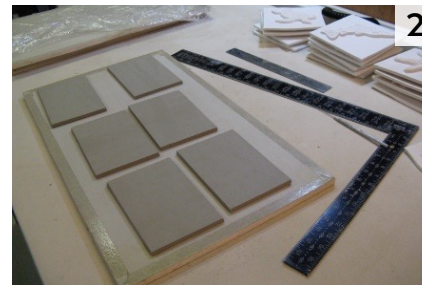
this technique involves rolling out clay to an even thickness then cutting shapes, folding, bending, manipulating, and joining together to form a finished object

LANGUAGE JUSTICE

centers that every individual's fundamental language rights and ability to communicate and to be understood in the language in which they prefer and feel most articulate and powerful

Process

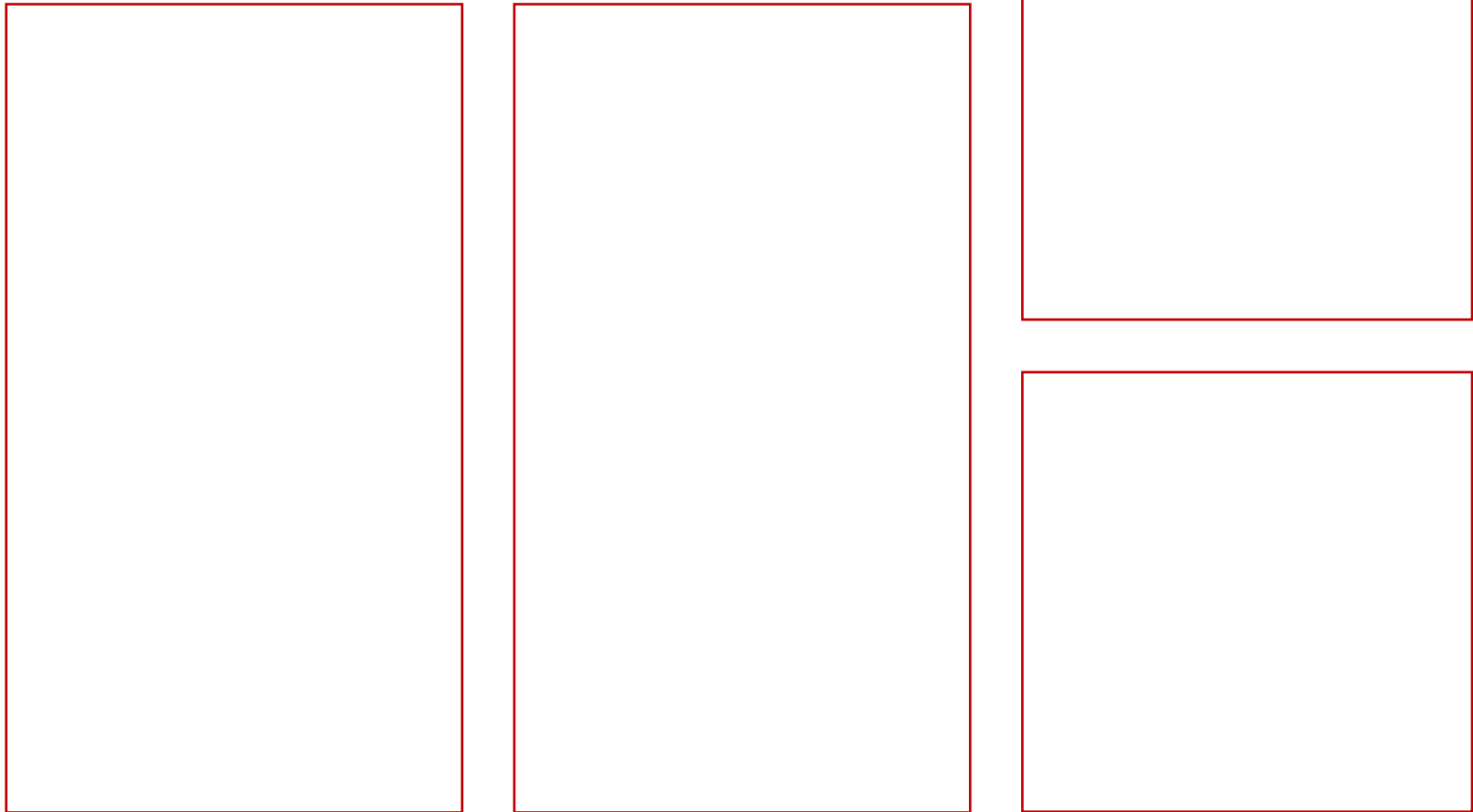
- Each student will receive a flat clay slab to make five slabs of clay
- Student will need to make three rectangles and two squares
- Students will have stencils to create the shapes needed
- After students create the shapes, students will cut them out with the craft sticks
- After cutting out the shapes students can use the rubber letter stamps
- Students will then score all the edges of the shapes to prepare to assemble
- Students will then begin to build their box by assembling all the edges using a bit of water
- After all edges are connected, sealed, and smoothed, the box can dry with a blow dryer
- Fill the box with newspaper to keep the shape
- Students can use the letter stamps to press into the sides
- The clay may take a week to dry to be stiff enough to draw on
- Once dry, students can use paint or marker to further decorate their boxes



AFFIRMATION BOX TEMPLATE

Create a design for affirmation box. Think of positive words, phrases, poems, or lyrics to express your feelings.

Use the space to create an image and write about your choice of words or phrase.

The template consists of five empty rectangular boxes with red borders. On the left side, there are two tall, narrow boxes stacked vertically. To the right of these, there are two shorter, wider boxes stacked vertically. This layout provides space for creating a design and writing affirmations.

SLAB BOX EXAMPLES



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Grounds For Sculpture

Ceramic Lesson for Classroom Educators

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