

Guadalupe Elementary's Ceramic Program: **MOLDING CLAY PROJECTS**

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Preparation

Detailed instructions for each of the clay projects can be found on the Guadalupe Home & School Club website, <http://ghsc.net/ceramics/> as well as in the Clay Room in the rack labeled "Project Folders." These instructions specify the proper steps required to make each project and list all tools and materials that will need to be brought to the classroom. All volunteers should read these instruction sheets well ahead of time. It would also be a good idea to bring one or two of these instruction sheets to the classroom for reference. Please remember to put them back in the proper folders when finished. These instruction sheets are for the parent helpers only- not to be handed out to the children.

1. ****Please plan to arrive at the Clay Room about 20-25 minutes before the start time arranged with the teacher (more if this is your first time and you'd like to make a project beforehand).****
2. Please also prepare for ~30 minutes of clean up at the end.

MOLDING LOCATION OPTIONS-

Please coordinate with your teacher about format (whole class vs. small group instruction) and location (within classroom, directly outside of classroom, small group rotation inside the clay room).

*If you are unfamiliar with the process and would prefer to work with small groups, please confer with your teacher. We find that the first molding session benefits from small group instruction but prepare for a longer first session either way since kids benefit from review and step by step support after a long summer.

3. Materials Needed:

- a. If needed, you can coordinate with the office to borrow folding tables from the cafeteria.
- b. Fill the provided bucket half-full of water. (There is a faucet handle/key hanging on a nail by the sample project shelves. The faucet is under the drinking fountain between the bathrooms around the corner). Water is needed for washing hands, wiping off tables, cleaning tools, etc.
- c. Load all of the needed materials onto the clay cart. Note: if guiding small groups of 5-8 you won't need an entire class set of materials.

- d. **Wooden Drying boards** will be needed (2-5 depending upon instructions). They are kept under the shelves of glaze.
- e. **Label wooden drying board(s) w/your Teacher's Name, Date, # of projects on a piece of masking tape.** Put the tape onto the narrow edge across the short side of the board so that it will be visible when two boards are put side by side on the shelves. The molded projects will be left to dry on these boards until they are ready to fire in the kiln.
- f. **Plastic bin(s) of precut clay** (labeled with your session info and prepared for you 1-3 days beforehand)
- g. **1-2 Plastic bags for clay scrap.** Clay is expensive, and the school cannot afford to throw the scraps away. The Clay Coordinators will recondition the scrap clay for later use. (*Pls do not allow students to include trash to their scrap clay or add to scrap bag!*).
- h. **One vinyl mat per student** in your class.
- i. Whole bucket of **wooden slats** if needed for the project.
- j. **One roller per student** and placed on the bottom of the ceramics cart. ****IT IS STRONGLY REQUESTED THAT THE BUCKET OF ROLLERS NOT BE BROUGHT TO THE CLASSROOM** because during cleanup, the dirty rollers will likely get tossed into the bucket of clean rollers and never get wiped off.
- k. **10 to 15 small plastic tubs** for water for whole-class instruction. One tub for every two students is adequate. The water is used for smoothing out rough areas, moistening clay that has become too dry or cracked, and for joining pieces together.
- l. **Cutting tools** are located in a white plastic box. **(35 total)**
 - *These tools should be counted BEFORE & AFTER molding to ensure none are misplaced.*
 - If the count does not match, please go back and find them to ensure the safety of students.

- m. **Project samples** from the display shelf to show the class during instruction and demonstration.
 - Please place the project samples in the small cardboard box labeled "Project Samples." It is lined with a towel to protect the samples from being broken. PLEASE BE CAREFUL TO AVOID BREAKING THE PROJECT SAMPLES.
- n. Any other indicated supplies for your specific project
- o. **Spray bottle** from the Clay Room. It comes in handy for spraying clay that has started to dry out during molding.

Use The Correct Amount Of Clay/Avoid Waste

The Clay Coordinators will pre-cut the clay for all projects no more than 3 days ahead of time so that clay will not dry out. This is why communication with us about scheduling, class size changes, and leftover clay is crucial.

You will find your pre-cut clay in plastic bins labeled with your session date, teacher's name, and #of clay pieces. Bring the whole box to the classroom. DO NOT TILT THE PLASTIC BOXES OR THE CLAY WILL SLIDE TO ONE SIDE AND STICK TOGETHER. Keep the lid closed to prevent the remaining clay from drying out. Do not pass out the clay until it is ready to be used.

Leave unused blocks in the bin; do not put them in the scrap so that we can use them for upcoming sessions. Update the Coordinators of leftovers to avoid waste. To ensure that you will have pre-cut clay available for your project, please remember to schedule and post the molding date on the Google Clay Calendar at least one week ahead of time- ** if you make any changes, you must email the Coordinators ASAP so that they can adjust accordingly.

Using The Mats

These are simple squares of vinyl tablecloth. Place one mat over each child's desk or workspace. They are important because the clay does not stick to them and keeps desks clean. Please use them no matter where you are located.

Afterwards, the mats must be wiped clean with a plastic scrub brush. Avoid getting the mats wet as that can make it harder to clean them. It is easier to scrub off bits of dried clay.

Please do not just fold them dirty side in and put them back on the shelf. Nobody wants to clean up after the last class before they can begin their own project. Dirty mats shed dried up clay bits all over the classroom carpeting and cause the new clay to stick more aggressively to the mat.

Leading By Example

Volunteers should coordinate how to intro and explain the project steps/tips in detail to the class. When explaining the project, remember to emphasize that this is a learning process and explain the techniques being used e.g. hand molding, rolling a slab, making coils, cutting and joining clay, etc.

Explain to the class the various steps of drying, bisquing (pre-firing), glazing, and finally firing again. Since the Kindergarten children have not made a clay project before, assure them that when their projects are finished they will be able to take them home.

This is most effectively accomplished by demonstrating the steps in front of the whole class. Within your time constraints you can demo parts of the more complicated & important techniques/procedures pertaining to their particular project. Drawing sketches on the whiteboard/chart paper can also provide visual reminders for your class.

If the children are away from their desks during instruction/ demonstration, the other parent helpers can distribute the mats, clay, tools, set out drying boards, and tubs of water. Put no more than 1/4 to 1/2 inch of water in each tub.

If the children are at their desks, it is best to wait until the demonstration is over before distributing the clay and tools in order to avoid distracting them.

Distribute any sharp tools only when they are needed. Stress the importance of using these tools carefully. The cutting tools are very sharp. Be sure to collect and count all tools when done.

****Check for absent students upon arrival to class! Keep any completed demonstration project you've made for a child who is absent or whose project gets badly broken or damaged later on.**

Rolling Out A Clay Slab

Most projects involve rolling out a piece of clay as the first step. This can be a very difficult step especially for the younger students so volunteers will often need to help. Use two of the flat wooden slats for each student. Place one on either side of the clay. These are used to achieve a flat slab of clay of the proper thickness. Always use a clean dry roller. Encourage kids to stand up while rolling to take advantage of their weight.

Before passing out the clay, you can also help pre-roll the blocks into round balls and flatten them somewhat by hand. Working and

flattening the clay by hand first softens the clay and makes the rolling go much more quickly and easily.

Try not to press down on the roller too hard to begin with; this will cause the clay to stick to the roller. Reposition the slats and roll the clay in different directions from time to time- not just up and down. It works best to always start your rolling position in the middle of the slab and then roll completely off of the edge of the clay. Continue until the roller firmly contacts the wooden slats with every roll (ensuring it's a flat slab) and no longer leaving marks in the clay.

After rolling out the clay, remove the slab of clay from the mat by flipping it upside down over an open hand. Then peel the mat away from the back of the clay. Attempting to pull the clay from the mat while it is still on the desk or table usually results in stretched and torn clay.

Air bubbles, if present, will appear as small bumps or blisters on the surface of the rolled out clay. Pierce the bubbles with the pointed cutting tool and press out the air. Roll over the spot to even it out.

Using The Templates

When using a template, it is important to have students test the fit of the template on the clay BEFORE they have completely rolled out the clay. If needed, help reposition the wooden slats so that the clay can be rolled out into the template size.

In the event that the clay has already been completely rolled out, and the template does not fit completely on top of the rolled out slab, DO NOT ball up the clay and start over. There is a simple way to fix the problem.

- Lay the template over the clay.
- Using one of the sharp cutting tools, cut away some of the excess clay from where it is not needed.
- Take these scraps and lay them on top of the slab, about an inch from the edge where more clay was needed.
- To help join these pieces together, lightly score and moisten the scraps before pressing them into place.
- Reposition the slats if necessary and run the roller over the scrap and out in the direction of where the clay was needed.
- The action and pressure of the roller will cause the scraps to meld right into the slab.
- This procedure can be repeated, if necessary, until the slab has reached the proper dimensions. This is much faster and easier than wadding up the clay and starting over.

With some templates, there may not be enough to give one to every child. This should not be a problem. Since students take varying lengths of time to get to the point where the template is needed, they can simply take turns using them. Just distribute one template for every two or three children if necessary.

The templates used for the various projects in the ceramics program took many hours of meticulous work to cut out. Please treat them with care and respect so that they will last for as long as possible.

Cutting Shapes From The Slab

The easiest way to cut the slabs of clay is with the cutting tools in the white plastic "Cutting Tools" box- they look like sharp metal spears. If the project calls for the use of a template, place it on the slab and lightly roll it onto the clay for an outline before putting away the roller and wooden slats. Then gently drag the cutting tool all the way through the clay around the edge of the template.

To avoid damaging the vinyl mats, tilt the tool at a 45-degree angle while holding it like a pencil, not straight up and down, so that it cuts through the clay more easily. Do not press too hard.

In Kindergarten and First Grade, only the adults should use the sharp cutting tools. In Second Grade and above, students can usually be trusted to use these tools safely but only with guidance and close supervision.

Joining Pieces Together

Many projects involve attaching two or more pieces of clay together. If not done properly, the pieces will fall apart while drying or while being fired.

To join clay together, start by gently scoring or scratching the two pieces where they will be touching. This can be done with the cutting tool, a fork, a knife or even a fingernail. Then, slightly moisten these areas with a wet fingertip. Next, gently but firmly press the two pieces together and smooth the joints. This will ensure a good bond between the pieces.

For joints that will have a lot of stress put on them, a thin string or snake of clay can be laid along the joint and pressed and smoothed into place. Lines or joints in the clay can be smoothed out by gently rubbing the clay repeatedly in the same direction.

Be Creative!

The clay projects can be textured with a wide variety of items. In the Clay Room are plastic forks and knives, various metal clay tools, wooden and plastic shaped blocks, and toothpicks. Leaves, pine needles and wheat seed heads can also be used to make impressions in the clay. (There is no need to remove small bits of needles or seeds from the clay, as they will simply burn away when the projects are fired). Plastic drinking straws are good for punching holes in the clay in order to hang the project on a wall. The holes should be at least 1/2 inch from the edge of the clay. There are garlic presses that can be used to make hair, which is used in some of the projects.

*****Please note that pieces that are too thick or have pockets of air in them are more prone to exploding in the kiln and can potentially damage other nearby projects! Please monitor and redirect students who need help in keeping even thickness or adjustments to their design to avoid damage in the kiln.*****

Supporting Students

The amount of help students need will vary. First and foremost, these are artistic projects and as such, there is often no right or wrong way to decorate them. Our goal is for students to learn and become more confident in clay techniques and working within parameters outlined for your particular project. (For example, one child should not be trying to make a pot if everyone else is making a picture frame. They also should adhere to thickness limits and avoid air pockets.)

Each child should be allowed to express his or her own unique artistic talents. At the same time, it is important that students complete a successful project and something that they will be happy with.

Your job as a volunteer to assist and guide and troubleshoot. Sometimes all that is needed is an idea for inspiration. Sometimes a lot of help is required to keep the projects from falling apart or collapsing. *Rolling out slabs of clay and joining pieces together are two of the most difficult things to accomplish and may need to be done entirely by the parent helpers in some cases. Repair any clay that has cracked or torn by scoring or scratching the torn edges, moistening them with water, and gently pressing them back together.*

Identify each project by clearly printing student first names and last initials on the bottom or lower edge of each project. If space permits, add the year on the project as well.

(PRO TIP: take photos of students with their creations!) With the sharp cutting tool or a toothpick, press lightly so you don't cut all of the way through the clay. This will prevent identification problems later on when they are glazed and/or ready to go home... we've sadly had to throw out unidentifiable projects.

Absences & Make Ups

Volunteers should check with their teacher about how many children are absent before you begin molding. *The Project Leader & fellow volunteers should determine ahead of time if he or she is planning to provide make-up sessions.*

It is best to have any make-ups for the molding done as soon as possible so that they can be fired along with the rest of the class. If the teacher does not want the child pulled from the class, the make-up work can be done during lunch or sometimes after school, with the parent's permission of course.

If you decide that make-ups aren't an option, make sure that class volunteers or an early finisher helps to make enough extra projects so that each child will have a project to glaze for your second session. Don't forget to write the names of the absent children on the bottoms of the projects. You can also make an extra one in case any project is broken or damaged. Write just the date on the bottom to distinguish.

Session Wrap Up

After the molding has been completed, have the children pick up any bits of clay that may have fallen onto the floor. They can also help clean and bring mats and other materials back to the clay cart. Thoroughly clean all clay residue from desks with the damp cloth towels or sponges and clean water (that you brought from the clay room).

PLEASE COUNT THE CUTTING TOOLS IN THE WHITE PLASTIC BOX! There should be 35 in total. If the count does not match, look under and around all of the desks or in the leftover clay until the missing tools are found. The clay cutters are very sharp, and can cause serious personal injury to a child if found lying on the floor.

It is strongly recommended that the drying boards/finished clay projects be **CARRIED BY HAND** (based on project height/fragility) back to the Clay Room. The shaking and vibration generated by the clay cart can shake loose and topple hard-earned projects. The boards should be placed on any of the empty shelves in the middle of the Clay Room.

Clean Up (~30 min)

- All mats, rollers, tools, tubs and anything else that was used must be cleaned after each use. (The wooden slats usually do not require and cleaning). This is most easily accomplished back in the Clay Room with a scrubber/sponge/wet towel and a bucket of water.
- Please make every effort to put things back in the same location and same condition (or better) before they were used.
- Trash can be emptied outside of the clay room.
- Dirty towels are collected in a box above the bags of clay.
- Buckets of dirty water can be dumped on the grass behind the clay room or into the planters near the drinking fountain. **DO NOT DUMP THE BUCKETS INTO THE TOILETS.** Overlooked items such as knives, forks and tools might get dumped into the toilet along with the water. Also, clay backs up the pipes.
- A "Before You Go" Reminder can be found on the inside of the clay room door for reference.

The Next Steps

In preparation for glazing, the clay must dry for two or three weeks after molding and then bisqued (first-fired) in the kiln. The kiln is capable of firing the projects of 1 class (sometimes 2) at the same time. Timing is dependent upon the size of the projects and the Kiln Operator's availability.

In order to avoid firing the kiln with only a partial load, it is sometimes necessary to wait for another class's projects to dry a little more so that they can be fired at the same time. If a glazing date has been offered on the Clay Calendar, it can be assumed that the projects will be bisqued and ready to glaze by then. If otherwise, the Class Project Leader will be notified when the project has been fired or of any updates.

Please be sure to schedule your Glazing session with your fellow volunteers and teacher ASAP if you haven't done so yet.

Thank you so much, Ceramics Team!