

# Guadalupe Elementary's Ceramic Program: GLAZING INSTRUCTIONS

## **Recommendation:**

Glaze in the ceramics room with groups of 5-6 students at a time. This is the most popular choice because it's the easiest to control, requires less parent volunteers, less glaze is wasted, and is the easiest to set up/clean up.

Timing Example:

~2 hours = 20 minutes set up, 1.5 hours for glazing (~15 minutes for each group of 6 students from a classroom of 30. Confer with your teacher about how to best swap small groups in a timely manner), 20 minutes clean up.

(Glazing in the classroom- This option allows every student more time. Downsides are cleanup, more glaze wasted, more volunteers needed, and having to bring all the supplies to the classroom.)

## **Preparation**

- Please plan on arriving at the Clay Room **at least 20 minutes before** the start time arranged with the teacher.
- Please plan for ~20 minutes of cleaning up in the clay room after your projects are done.
- Projects ready to be glazed are found on the shelves in the Clay room & labeled.
- Fill one large **white bucket** half-full of water and toss a couple of **sponges** in it. This is needed for washing hands, wiping off tables, rinsing out sponges and paintbrushes, etc.
- **WATER**- There is a faucet handle hanging between the two shelves to the left of the clay room, and the faucet is under the drinking fountain between the bathrooms around the corner.
- 2-5 drying boards will be needed. **Please use the boards, NOT the boxes** for drying glazed projects.
- **Write your teacher's name, date and total number 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 total number of projects does not include students who are absent that day.) Put the boards on any of the available middle or right hand shelves.
- The clay projects should be glazed right on the bare tabletop. Please do not use the mats or cover your tables with newspaper. It is far easier to simply wipe up the drips and smears of glaze with a damp sponge as they occur. Newspaper holds onto spills and the glaze tends to get on clothing and the next child's project.

## **GLAZE-**

Please first **stir** the glaze with stirring sticks provided on the glaze shelves. Since the glaze is thick and solids settle to the bottom, glaze cannot be simply shaken to thoroughly mix. Glaze adheres to the stick so **with a finger or paintbrush, wipe as much as possible back into the bottle.** The glaze is very expensive, so please try to minimize any waste.

Choose no more than 4 or 5 different glazes. \*\*If there is less than about an inch of glaze left in the bottle, the paintbrushes can be put right into the glaze bottle. Otherwise, pour a **small amount of glaze** out into one of the small plastic tubs. Pour no more than about 1/4 inch into the tubs at one time.

Do not mix glaze colors. Each glaze color has a unique formula, some are very thick and some are very thin. Do not try to thin out glazes by adding water; just stir them as much as possible before using.

Use 2-3 brushes of various sizes in each color to avoid mixing colors. This eliminates the need for the children to rinse off their brushes with each color change, which wastes a lot of glaze. **Watch carefully that brushes get put back in the correct color.**

Place the color chips for the glazes being used on the table so that the children can see what each glaze will look like after it has been fired. Some of the glazes look completely different in the liquid form than they do after firing.

PLEASE WIPE OFF THE TOP OF THE BOTTLE AND THREADS WITH A DAMP SPONGE BEFORE REPLACING THE LIDS. **Wipe any drips off of the outside of the bottles as well.** Glaze left on the threads can make it difficult to remove the lids after the glaze has dried, and makes it hard to get the lids all of the way back onto the bottles, which allows the bottles to dry out.

In order to avoid pouring leftover glaze into the wrong bottle, it can be very helpful to write the bottle number of each of the glazes being used onto small pieces of masking tape and stick them to the tubs of glaze. Although very different in color after being fired, many glazes can look the same in the liquid form. Please take care not to mix the colors. Afterwards, please remember to remove the tape from the tubs so that they will be ready for the next class. If colors have become mixed, do not put them back in the glaze bottles.

DO NOT THROW AWAY ANY EMPTY, OR NEAR EMPTY, GLAZE BOTTLES. Put them on the shelf by the light switch. This makes it easier to tell when new glaze needs to be purchased, and allows the Clay Coordinators to consolidate the remnants of a near empty bottle with the next one.

## Glazing With Students

Glaze is not paint. It is powdered glass in a water based liquid suspension. When the projects are fired after they have been glazed, the high temperatures in the kiln melt the glaze and return it to its more familiar "glass-like" condition. Because the glaze is powdered glass, it is very important to have the children wash their hands thoroughly when they are finished to avoid any possibility of it getting into their eyes. Since the glaze is not paint, it will not stain clothing, and is easily washed out.

Please caution the children about the importance of keeping the brushes in the proper color. THE GLAZES MUST NOT BE MIXED. If a brush has been put in the wrong tub, wash it off immediately, before the colors become contaminated. Glaze colors do not mix in the same way as regular paints. The results are unpredictable and less than satisfactory.

### TIPS for Students:

- Glaze the larger background colors first, then put the smaller details on top, after the first coat has dried. The glaze should be painted in a light coat that dries quickly. If the children are layering colors, it should not take very long to dry before they can decorate on top of the base color.
- Move the tubs around on the table to keep them close to the children who are currently using them so that they do not have to reach too far. Sometimes it is easier to move the kids around. When they want to use a different color, they must put the brush they were using back into the correct tub and get one of the brushes from the new color they wish to use.
- Tell the children that the glaze must dry before brushing a glaze of a different color over it.
- ***Any mistakes that might be made can easily be removed with a wet sponge.*** *Small amounts of dry glaze can be scraped off using one of the metal cutting tools.* Even an entire project can be washed clean with a toothbrush and a bucket of clean water. Any brush bristles stuck in the glaze will simply burn away in the kiln; there is no need to remove them.
- **Bottoms of most clay projects, especially the Small Animal Figures, Fish and Frogs SHOULD NOT BE GLAZED because it makes firing impossible (projects become stuck and break off).** \*\*However, some projects such as the Gingerbread Man Spoon Rests, Coil Mugs, Clam Shell Soap Dishes and the Lace Plates can be glazed on the bottoms for reasons of aesthetics and waterproofing.

## **Broken Projects**

On occasion, a project may crack and break during the drying process or when it is fired for the first time. Joined pieces may also fall apart. Broken projects and projects with separated parts can usually be repaired after the final firing. Do not throw the pieces away; just keep them together and glaze them as usual, except instruct the child to keep the glaze off of the broken surfaces. The break must be kept clean so that the pieces can be properly glued back together again after the final firing.

**Please do not try to bond the pieces together with glaze. During firing, the glaze melts to the consistency of syrup. Pieces stuck together with glaze will likely fall apart during firing and adhere themselves to the shelf or another child's project.**

## **Absentees**

Make arrangements with the teacher for any absent children to glaze their projects when they return. Since glazing does not take very long, this should not be a problem. Glazing make-ups should be done only in the Clay Room. Check the Calendar for availability. When glazing with only one or two children, it is not necessary to pour the glaze into the plastic tubs; it is not worth the extra clean up and wasted glaze. But do tell the children not to dip their brushes more than about 1/2 inch into the glaze.

## **Over-Glazing With A Clear Coat**

All our glazes have a glossy finish and if the kids do a good job covering their pieces an overcoat is not necessary. However, any unglazed surfaces will remain the rough and dull texture of the unfinished clay. For younger grades, almost all projects will require an overcoat, but many of the older kids will do a great job of glazing their pieces and no overcoat is required. Only parent helpers should apply the over glaze and it should be done in the Clay Room.

The clear coat can be applied as soon as the regular glaze has dried, usually after about **5-10** minutes. Wait until the whole class has finished and then start with the projects that were glazed first. The clear glaze is kept in the large gallon bottles on the top glaze shelf. Stir this glaze the same way as the smaller bottles, and pour about half of a cup or so into a pie tin.

Use the large brushes, which are kept next to the bottles of clear glaze, and quickly apply a heavy coat with a patting technique. Excessive brushing may dissolve the glaze underneath, blurring the colors on the project and tainting the unused clear glaze.

Holding the project over the pie tin allows the excess glaze to drip right back into the tin. PLEASE DO NOT DIP OR DUNK THE PROJECTS INTO A TUB OF

GLAZE. This creates a goopy mess when the projects are placed on the drying boards and usually winds up gluing them to the board. This also puts an excessive amount of glaze onto the project, which, when fired, can drip onto and damage the shelves in the kiln. Pour and brush the leftover glaze back into the bottle. Oddly, the clear glaze will dry to an opaque green color. Do not worry! After the second firing the colors underneath will show through clear and bright, and the entire project, including areas not painted with a colored glaze, will appear glossy.

Some projects have holes in them for hanging on a wall. The Mission project has a small hole for hanging a bell. After the projects have been glazed, the parent helpers must clean out any accumulated glaze from these holes. The sharp cutting tools work well for this task. If the holes are not cleared of glaze, they will be sealed shut when the glaze melts in the kiln and turns to glass.

## **Clean Up**

Glaze is expensive. Some colors cost \$12.00 per bottle. Please use brushes or even fingers to wipe as much glaze as possible out of each of the tubs and back into the CORRECT bottles.

- Wipe the excess glaze from the brushes back into the bottles as well.
- Wash out all of the paintbrushes thoroughly in CLEAN WATER.
- Wipe off the tables and wash out the glaze tubs.
- Wipe off the threads of the glaze bottles and lids.
- Wipe off any dribbles on the glaze bottles and put them back in the same location from which they came.
- Put the color chips back in front of the correct bottles.
- The white plastic bucket next to the small kiln is for trash.
- The bucket of dirty water can be dumped on the grass behind the clay room or in the planter near the drinking fountain. DO NOT DUMP THE BUCKETS INTO THE TOILETS.
- Overlooked items such as paint brushes and sponges might get dumped into the toilet along with the water.
- Use sponges for glaze clean up.

## **When The Projects Are Done**

After the projects have been glazed, allow up to two weeks for them to be fired. The Project Leader will be notified when the project has been fired and ready to return to the children. After the projects have been fired, they will be in a on the top shelves to the left of the clay room, marked "Ready for Pick-Up." The boxes will be labeled with the teacher's name.

AFTER THE PROJECTS HAVE BEEN DISTRIBUTED, PLEASE RETURN THE EMPTY BOXES TO THE CLAY ROOM. Just leave the boxes on the table; they do not need to be put back on the shelves.

## **THANK YOU**

If you have read all of the way through this handbook, you have our sincere thanks and appreciation! Your help and understanding in following the procedures described above very much support all of our Ceramic Team Volunteers and Families so that we can keep this wonderful program running smoothly! Thank You.

If you have any questions, problems, suggestions or just in need of further explanation or assistance, please feel free to contact the Guadalupe Ceramics Coordinators.