

# Metallic Form Sculpture

## MATERIALS

### FOR STUDENT:

(one per group of students unless otherwise noted)

- FloraCraft® Make It: Fun® Foam: 3" Ball, 2 3/8" x 3 7/8" Cone, and two 2 7/8" x 2 7/8" x 2 7/8" Cubes
- Toothpicks, three
- Paintbrushes, four large
- Plastic cup of water, four
- Scissors
- Plastic knife
- Pencil
- Thick white tacky glue
- Paper plates, five small
- Paper towels, four
- Paint apron per student

### FOR TEACHER:

- Acrylic paint, metallic finish: Silver Sage, Copper, Splendid Gold, Renaissance Brown
- Serrated knife (for teacher to use if students need help carving edges)
- Glue gun (for teacher only)
- Old newspapers or plastic tablecloth (optional)
- Plastic-lined garbage can
- Paper towels
- Bucket of water
- Small empty squeeze bottle
- Wet wipes
- Drying area

## TEACHER PREPARATION

*Note: Read through all the instructions first and check out the TIPS! Plan for two class sessions with drying time in between them. Have a glue gun plugged in and ready to use (ideally set on low temperature) but out of student reach. This can give you immediate adhesion when you're in a hurry to help students. Be sure that the glue has cooled before returning the projects to students (takes a minute or so.) It is also recommended that you construct one first, before preparing the materials for any others, since knowing the process, first hand, might affect how you prepare.*

**[1]** Open packages of foam balls and cones. Note that the cones are not pointed on the top as a true cone is. If that concerns you, gently press the top edge of the cone by rolling it on a table to flatten that area and create more of a point. If not, plan to mention to the students that actual cones have points but that foam cones do not, as part of the manufacturing process.

**[2]** Open the packages of cubes. Each group will

receive two cubes – one cube to be left as a cube and the other to be cut into a cylinder.

**[3]** For each group, put one cube and a plastic knife on a plate, ready to carve.

**[4]** Have ready to give each group of students four of each: Small plates, paintbrushes, and paper towels. Also have ready a cup of water, a pencil, and toothpicks. Set the paint nearby.



## ART

GRADE LEVEL

SECOND – THIRD

### COMPLETION TIME

- 50 minute session (2 hours minimum drying time)
- 30 minute session



## OBJECTIVES

Students:

- Understand the difference between 2-Dimensional shape and 3-Dimensional form
- Recognize and name the basic forms: Cube, cylinder, cone and sphere
- Work in a group to create a unique way that the forms can be combined into a sculpture

## STANDARDS

- Describe and analyze the elements of art (e.g., color, shape/form, line, texture, space, value), emphasizing form, as they are used in works of art and found in the environment.
- Creating, performing and participating in the visual arts – students apply artistic processes and skills, using a variety of media to communicate meaning and intent in original works of art
- Use additive and subtractive processes in making simple sculptural forms
- Use the interaction between positive and negative space expressively in a work of art

## LESSON INTRODUCTION

- Remind students that three of the six elements of design are: Line (1-D), Shape (2-D) and Form (3-D). Explain that people tend to misuse the word "shape" when they mean "form" and that this lesson is about four basic forms: Cube, cylinder, cone and sphere. They are the three dimensional versions of the square, circle, triangle and circle. Students can work in groups of four to create an additive sculpture of the four forms, but first, they'll have a chance to use a subtractive sculpture technique to create the cylinder form.



[1]



[2]



[3]



[4]



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# INSTRUCTIONS

**[1]** Just before students arrive, at each group's place, set the plate with the foam cube and knife on it. Also set the foam ball, cone, and other cube next to the paint. Squeeze a different color of paint onto each plate, ready to go.

After telling students about the various forms, explain that one (or several) from each group will get to carve a cylinder from the cube on the plate.

Demonstrate and have one student hold down the foam block. Have another student firmly hold the knife handle and saw off one of the corners, going straight down. That student (or the others may take turns) can saw off the other three corners, cutting away the same amount, as much as possible. Ask students to save the foam scraps without damaging them.



**[2]** Demonstrate and have the students carve/saw away the remaining eight pointed corners, but remove less than the first time, so that the form becomes as evenly rounded as possible. Rotate the cylinder to check for any areas in need of gentle trimming. Have students use the first cut pieces of foam to sand any rough areas, working over the table to catch the dust. Distribute wet wipes to clean up the dust.

Point out that they just learned one way of doing subtractive sculpture.



**[3]** Have students put on their aprons and roll up their sleeves, explaining that this paint will not wash out of clothes. Suggest that each group have one student painting each form, selecting a different color for each form and not mixing the colors or the brushes.

As students are finished, collect the brushes and put them into the bucket of water (until after class when they can be washed out). Have the students write

their names on the plates and move them into the drying area.



## NEXT SESSION

**[4]** Have students collect their plates of painted pieces and take them to their work areas. Explain that now is when cooperation and compromise is important. They need to come up with a way of arranging their forms that will be balanced and be able to stand on its own. Discuss the positive areas (the forms) and the negative areas (the air all around) and how they should be assembled so that they have in and out areas to create interest. The sculptures should look good from all angles.

When they have experimented with several different ways of arranging the forms, each group of students should decide on their favorite placement for the final one. They may use toothpick halves to hold the forms in place, by inserting one end of a toothpick half into one form and the other end into the contact area on the other form. Explain that the toothpicks should not show, unless they are going to use additional ones and have them be part of the sculpture.



**[5]** When students have connected their forms, they may use tacky glue to make the toothpicks more secure, if needed. Point out that they just learned a way of doing additive sculpture.



## MODIFICATIONS

### To simplify project:

- Use three forms but skip the cylinder so you don't have to carve it. (However, you do lose the example of subtractive sculpture.)
- Cover forms in paper so that you don't have to paint or wait for paint to dry.

### To expand project:

- Have several groups of students (or all of them) combine their forms to create a larger sculpture.
- Have students research the work of Alexander Calder and incorporate the look of his stabiles (or mobiles) in the design of their sculptures.

### For multiple ages:

- Younger and older students can work side-by-side with younger students painting and the older ones being more involved with the design of the sculpture.
- Have older students research more about additive and subtractive sculpture and see if they can incorporate more objects in the designs.

## ADDITIONAL IDEAS

- Have students look around the room and find items that are made with each of the forms.
- This project would also work for a math unit on forms and volume.
- Research other sculptors, like Alexander Calder and look for the forms. Also discuss whether the sculptures are additive or subtractive or both.
- Paint smaller foam balls and blocks to add interest. Attach them with toothpicks, or if you want them to extend out, put them on the ends of sandwich picks.



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## TIPS

- Use your serrated knife to remove any problem areas for the students (and yes, if you do, they're going to want to use your knife, but shouldn't for safety reasons.)
- If the cylinders are a little lumpy, show students how to compress the cut edges of the foam. Place the side of the cylinder on the table and press down while rolling it back and forth and all around to get a nice even cylinder.
- Prepare the painting area, covering the tables if needed. Allow for plenty of space for each student. Have a large plastic-lined garbage can ready.
- Encourage students to keep their planning / designing to themselves and not look around at other groups' work until everyone is finished. Students will be much more creative without seeing any others. In fact, you might prefer to show your model at the beginning but then put it away before it's time to assemble.
- If it will be difficult to identify the artists of each sculpture, have students write their names on a short strip of masking tape and put it on the bottom of the bottom form.

## REFERENCES

*ARTistic Pursuits – Modern Painting And Sculpture (K-3rd grade – Book 3)* by Brenda Ellis  
*Look! Look! Look! At Sculpture* by Nancy Elizabeth Wallace  
*13 Sculptures Children Should Know* by Angela Wenzel  
*Meet The Artist – Alexander Calder* by Patricia Geis