

Lesson: Styrofoam Sculptures

This lesson plan guides seventh-grade students through the creative process of transforming ordinary styrofoam cups into unique sculptures, fostering creativity and problem-solving skills within a 40-minute class period.

Objectives:

- Students will learn basic sculptural techniques using Styrofoam cups.
- Students will develop spatial reasoning and design skills.
- Students will create a unique Styrofoam cup sculpture.

Materials:

- Styrofoam cups (20 oz, no more than 5 per student)
- Scissors (child-safe, one per student)
- Glue (PVA glue or low-temp hot glue guns with supervision, one per small group or student)
- Optional: Markers, paint, glitter, pipe cleaners, googly eyes, etc., for decoration
- Newspaper or disposable table coverings

Time Allotment:

Part 1: Introduction and Inspiration (5 minutes)

- Teacher: "Good morning/afternoon, class! Today, we're going to explore sculpture using a very common, everyday object: the Styrofoam cup!"
- Teacher: Show examples of simple and more complex sculptures made from recycled materials or even Styrofoam cups (if you have any prepared, or images). Discuss how artists transform ordinary items into extraordinary art.
- Teacher: "Our challenge today is to create a sculpture using only Styrofoam cups and glue, and then you can decorate it. Think about different ways you can cut, stack, connect, and reshape these cups."

Part 2: Materials and Safety (3 minutes)

- Teacher: Distribute Styrofoam cups and scissors to each student or group.
- Teacher: Explain the proper use of scissors for cutting the cups (e.g., cutting slits, removing sections, creating shapes).
- Teacher: Explain the use of glue. If using hot glue, emphasize safety rules and offer to assist. If using PVA glue, explain drying time and how to hold pieces in place.
- Teacher: "Remember, art can be messy! Please keep your workspace tidy, and if you're using glue, make sure it stays on your sculpture."

Part 3: Demonstration and Techniques (7 minutes)

- Teacher: Demonstrate various techniques for manipulating the Styrofoam cups:
 - Cutting: Show how to cut slits, remove the bottom, cut the rim, or cut the cup into strips.
 - Stacking: Demonstrate stacking cups upright, upside down, or interlocking them.
 - Connecting: Show how to use slits to connect cups without glue initially, or how to apply glue to join two cup edges.
 - Reshaping: Gently bending, twisting, or tearing parts of the cup to create different textures or forms.
- Teacher: "Think about basic sculptural principles: repetition (using the same cut multiple times), balance (making sure your sculpture stands), and form (what shape does it take?)."
- Teacher: "Start simple. You can always add more cups to make it bigger or more complex."

Part 4: Sculpture Creation (20 minutes)

- Teacher: "Now it's your turn! Begin creating your Styrofoam cup sculpture. Feel free to experiment with the techniques we discussed."
- Student Activity: Students will work individually or in pairs (depending on class size and material availability) to construct their sculptures.
- Teacher: Circulate around the room, offering guidance, answering questions, and providing assistance with glue or cutting. Encourage students to think creatively and not be afraid to make mistakes.
- Teacher: "If you're stuck, try a different cut or join two cups in an unexpected way. Sometimes the best ideas come from playing around!"
- Teacher: For early finishers, suggest adding decorative elements (markers, paint, etc.) or challenging them to make a second, smaller sculpture.

Part 5: Clean-up and Share (5 minutes)

- Teacher: "Alright artists, it's time to start wrapping up. Please begin cleaning up your workspace."
- Student Activity: Students will dispose of Styrofoam scraps and return unused cups, scissors, and glue.
- Teacher: "As you finish cleaning, I'd love for a few of you to briefly share your sculpture. Tell us what inspired you or what challenges you faced."
- Student Activity: Invite 2-3 students to briefly present their work to the class, explaining their design choices.
- Teacher: Collect finished sculptures (if desired, or instruct students to take them home).

Differentiation:

- For struggling students: Provide pre-cut cup pieces, suggest simpler forms (e.g., a tower, a sphere made of connected rings), or offer more direct guidance on specific joining methods.
- For advanced students: Encourage them to create a sculpture with a specific theme, incorporate more complex cuts and interlocking mechanisms, or focus on balance and negative space. Challenge them to use a limited number of cups or a specific type of cut.

Mississippi State Standards Alignment (Seventh Grade):

Visual Arts:

- VA.7.2.1: Utilize various art processes, media, and tools to create original works of art. (Students use scissors, glue, and cups to create sculptures.)
- VA.7.2.2: Organize and develop subject matter, symbols, and ideas in works of art. (Students plan and construct their sculptures, considering form and balance.)
- VA.7.2.3: Apply creative and critical thinking skills to develop and produce works of art. (Students problem-solve how to connect cups and create desired forms.)
- VA.7.3.1: Select and use art vocabulary to describe works of art. (Students use vocabulary like "repetition," "balance," and "form" during sharing.)

Math (Geometry/Spatial Reasoning):

- 7.G.A.3: Describe the two-dimensional figures that result from slicing three-dimensional figures, as in the plane sections of right rectangular prisms and right rectangular pyramids. (While not directly slicing 3D geometric shapes, students manipulate and cut 3D cups to create new forms, indirectly engaging with how 2D cuts affect 3D objects.)
- 7.G.B.4: Know the formulas for the area and circumference of a circle and use them to solve problems. (Students are working with cylindrical objects and can discuss properties of circles if prompted, even if not calculating.)

Science (Physical Science/Engineering Design):

- MS-ETS1-1: Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. (Students are constrained by the material – Styrofoam cups – and design for stability and desired form, implicitly engaging with structural integrity.)
- MS-PS1-4: Develop a model to describe that synthetic materials come from natural resources and impact society. (While the focus isn't on the origin of Styrofoam, the activity uses a synthetic material, allowing for discussion about its properties and re-use in art if desired.)

English Language Arts (Speaking & Listening/Writing):

- SL.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. (Students engage in discussion with the teacher and peers during creation and sharing.)
- SL.7.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation. (Students share their sculptures and explain their creative process.)

Sample of a similar workshop: <https://artprof.org/learn/styrofoam-cup-sculptures-step-by-step-demo/>

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