

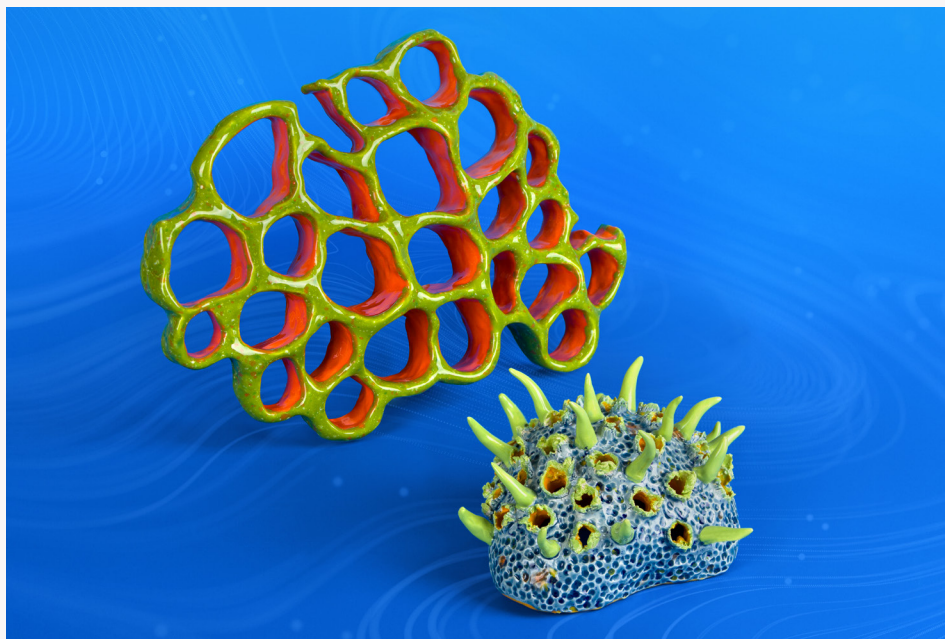
LESSON PLAN

UNDER THE LENS: SCULPTING MICROORGANISMS IN CLAY



Suggested Levels: Grades 5 - Advanced

Designer: Bailie Benson and Tabitha Lusk



Students will study microscopic imagery and create abstract clay sculptures inspired by the forms, textures, and movement of microorganisms. Using slab, piercing, and pinching techniques, they'll construct dynamic sculptures, then finish with Mayco glazes that emphasize texture and a three-dimensional quality.

OBJECTIVES

I CAN... observe and interpret the form and function of microorganisms to inspire my ceramic sculpture.

I CAN... experiment with clay techniques to create texture, form, and dimension.

I CAN... apply glaze to emphasize depth and surface variation.

I CAN... use tiny things I see under a microscope to get ideas and make my own creative art.

NATIONAL VISUAL ART STANDARDS

Generate and conceptualize artistic ideas and work.

- Creativity and innovative thinking are essential life skills.
- Students examine microorganism structures to inspire clay sculpture design.

Organize and develop artistic ideas and work.

- Artists shape investigations through experimentation and tradition.
- Students explore texture, negative space, and organic form in clay.

Analyze, interpret, and select artistic work for presentation.

- Choices in form and finish affect how the artwork is understood.
- Students use surface and color to emphasize movement and organic qualities



SUPPLY LIST

CLAY

- Clay body of choice

BRUSHES & TOOLS

- Carving tools
- Modeling tools
- Needle tools
- Ribs
- Slip and scoring tools

MISCELLANEOUS

- Rolling pin
- Tools for texture (stamps, combs, mesh, natural items)
- Hole cutters or hollow tools (e.g., marker caps)
- Optional: microscope slides or microbe photo references



COLORS BY MAYCO

Stroke & Coat and Jungle Gems glazes are used in this lesson plan.

Stroke & Coat is user friendly and mixable; providing the ability to create custom colors. These glazes are also highly stable at low fire temperatures, making them perfect for full, opaque coverage and detailed design work.

Jungle Gems have colorful crystals that burst during firing and mimic microscopic patterns - adding depth and surprise to finished pieces.



Accommodations

- Visuals: Provide microscope imagery and step-by-step guides.
- Physical Support: Use softer clay or pre-cut slabs.
- Flexible Timing: Break projects into smaller stages.
- Guided Choice: Limit microbe references to reduce overwhelm.
- Verbal and Demo: Pair instructions with hands-on demos.



Teacher Tips

- Prep: Pre-roll slabs between canvas to save time.
- Group Discussion: "Which part of this microbe looks like art already?"
- Glazing Tip: Encourage glazing both inside/around holes for depth.
- Drying Tip: Control slab drying to prevent warping.

MEET THE MASTER



Eva Zeisel

1906-2011

Hungarian-American ceramic designer known for her elegant, organic modernist tableware. Though not focused on microorganisms, her smooth, natural forms embody the type of abstraction students will explore.

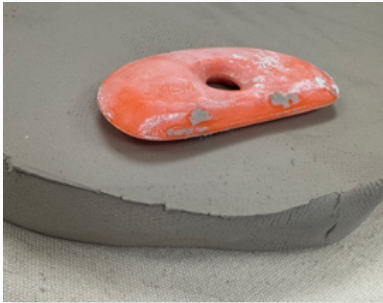
Connection: Students can take inspiration from Zeisel's playful, organic curves as they enlarge unseen microscopic life into abstract sculpture.

"The playful search for beauty is as much a part of my work as the serious concern for form." — Eva Zeisel



DIRECTIONS - CLAY BUILDING PROCESS

Method 1



1. Begin with a thicker slab of clay approximately 1.5 inches thick. Use a rib to smooth and compress the surface.

2. Using a hole cutter, punch several openings in the slab. You may choose uniform hole sizes for consistency or vary them to add visual interest and contrast.

3. Use a needle tool or clay knife to cut an organic, freeform shape around the outside edge of your slab. Let the contour flow naturally since it



doesn't need to be symmetrical.

4. Gently press down the outer rim of the slab to slightly flatten it. This helps define the outer boundary and gives the form

more structure.

5. Place your fingertips into the holes and begin



pinching the clay between them. This will lift and build height, giving the sculpture its dimensional, cellular look.

6. Continue pinching and manipulating the edges



of the holes. Stretch, compress, or reshape them as desired.



Aim for variety in shape and height to create a dynamic, microbe-like form.

7. Use a damp sponge to soften rough edges and

blend any sharp transitions.

8. Allow form to fully dry and bisque fire to cone 04.

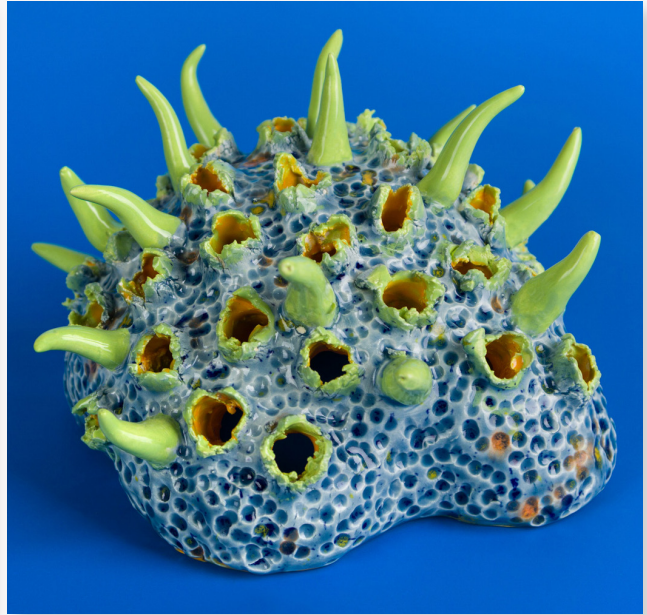
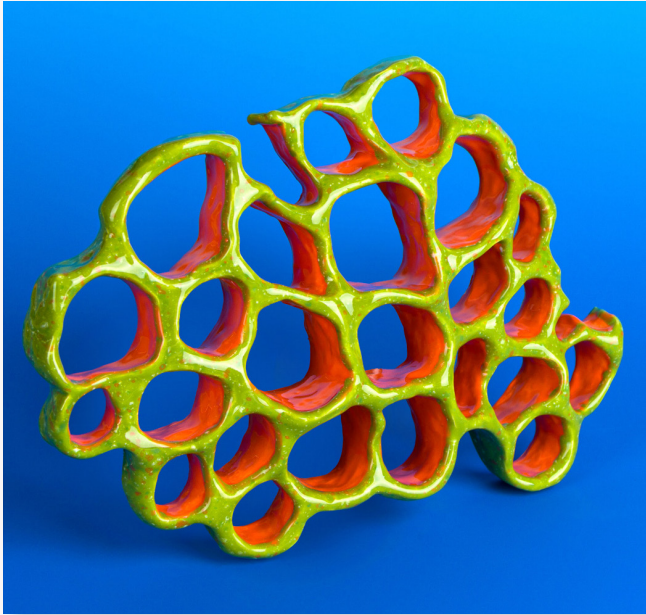
DIRECTIONS - CLAY BUILDING PROCESS

Method 2

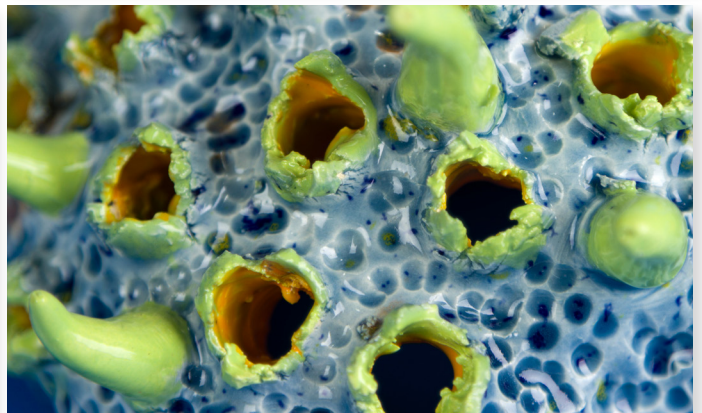
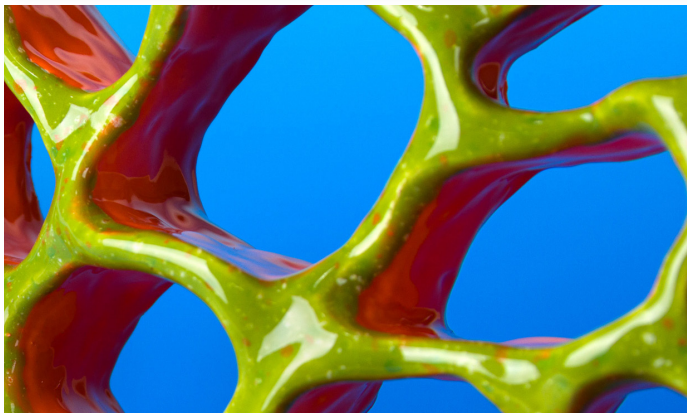
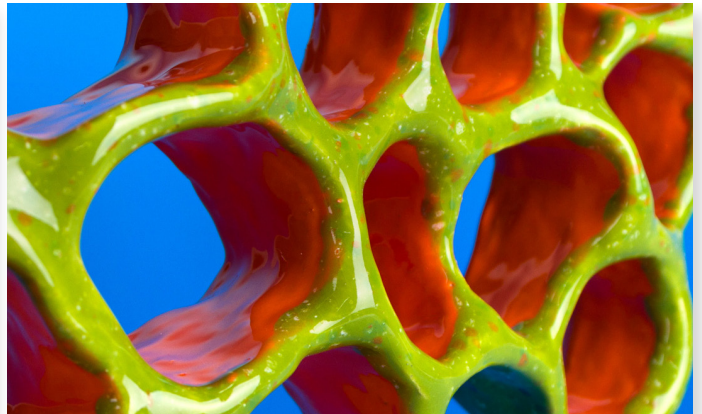
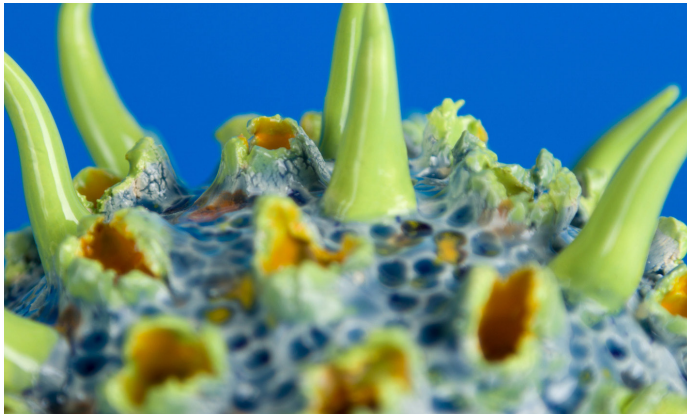
1. Begin by rolling the low fire clay into a ball and create a large pinch pot. If the clay is too moist, set aside the pinch pot to firm up for a few minutes.
2. Manipulate the edges of the pinch pot to create an irregular shape. Create holes in the form by pushing the back of a large handled tool through the clay. Leave the rough edges of the holes.
3. Roll out small coil spikes and use the toothpick and slip to slip and score the spikes to the form. Bend the coil spikes in different directions.
4. Using the back end of a brush, create small textural divots between the holes and spikes.
5. Allow to fully dry and bisque fire to cone 04.



DIRECTIONS - DECORATING PROCESS



This project features a combination of Mayco Stroke & Coat and Jungle Gems glazes. Stroke & Coat is user friendly with mixable colors. Jungle Gems have colorful crystals that burst in firing and mimic microscopic patterns, adding depth and surprise.



EXTEND THE LEARNING *using Gardner's Multiple Intelligences Theory*

LINGUISTIC (Word Smart)

Write a sci-fi short story about their invented microbe.

SPATIAL (Picture Smart)

Sketch multiple views or a topographic map of sculpture.

INTERPERSONAL (People Smart)

Peer critique using "Glow & Grow."

BODY KINESTHETIC (Body Smart)

Act out how the microbe moves (slither, wobble).

NATURALIST (Nature Smart)

Compare microbial patterns with coral, fungi, or pollen.

LOGICAL/ MATHEMATICAL (Number Smart)

Use ratios/patterns in hole sizes and spacing.

INTRAPERSONAL (Self Smart)

Choose glazes that reflect mood/personality.

MUSIC (Music Smart)

Create a soundscape for their organism's "energy."

RUBRIC

	EXCELLENT (5 PTS)	GOOD (4 PTS)	SATISFACTORY (3 PTS)	NEEDS WORK (1-2 PTS)
CREATIVITY	Unique, unexpected textures/forms	Creative interpretation	Simple, limited originality	Unoriginal, lacks effort
CRAFTSMANSHIP	Strong construction, no cracks	Mostly clean, minor flaws	Some rough/rushed areas	Poorly built, cracked
GLAZING	Enhances form & texture, precise	Appropriate, few flaws	Uneven or inconsistent	Poorly applied
EFFORT	Fully engaged, revisions made	Participated well	Needed reminders	Minimal effort
PRESENTATION	Thoughtful, neat display	Good effort	Basic presentation	Careless/messy

Total Score: ____/25

PERFORMANCE LEVELS
<p>25-20 POINTS (A): OUTSTANDING</p> <p>19-15 POINTS (B): GOOD</p> <p>14-11 POINTS (C): FAIR</p> <p>10-7 POINTS (D): WEAK</p> <p>6-0 POINTS (F): INCOMPLETE</p>