Building in 3D allows students to acquire the perception of space and form. Students learn about symmetry, practice using a template, and learn names of some basic forms.

Objective

This lesson has a video tutorial component: https://youtu.be/-v0dEaOtgM

The template of the wing is provided for your convenience, but variations of wing shapes are encouraged to make the butterfly unique to each student. Plasticine is the material used in the tutorial. It does not harden and can be reworked into different projects. The project can be made using a variety of materials including the homemade play dough.

Playdough Recipe

**Ingredients:**
- 1 cup flour
- 2 tsp cream of tartar
- 1/2 cup salt
- 1 tbsp cooking oil or vegetable oil
- 1 cup water
- Food coloring

**Instructions:**
1. In a large bowl, combine all of your dry ingredients (flour, salt, cream of tartar) and mix well.
2. Mix food coloring with your water first. Then add the vegetable oil and water with food coloring to a large pot. Mix together.
3. Add the dry ingredients to your pot and mix well.
4. Cook over low to medium heat until the dough starts to form and becomes dry.
5. Once it starts to form a ball together and looks fully cooked, take off the heat. Let the dough cool first before touching.
6. Once cool, knead the dough for 5 minutes to make the dough soft.

Storage: First wrap your playdough in saran wrap then store in an air-tight container.

Materials

- Yellow plasticine 2oz
- Pink plasticine 2 oz
- Brown plasticine 0.5 oz
- Blue plasticine 0.5 oz
- Plastic knife
- BBQ skewer
- Butterfly wing template

Vocabulary

- Symmetry
- Line of symmetry
- Shapes: cylinder, sphere, coil, texture, tracing

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SYMMETRY

The body of the butterfly is the line of symmetry that separates two identical halves. The right wing is a mirror image of the left wing. Keep this in mind when decorating your butterfly. If you place something on the right wing, you need to do the same on the left wing.

STEP 1

The body of the butterfly.
Separate brown clay into 3 parts. Make one part into a sphere by rolling it between your hands. Make the second part into a cylinder - shape of a soda can. Make the third part into a carrot. Join all three together.

STEP 2

Slice the yellow clay in half using the plastic knife and make a pancake out of each piece by pressing and rotating it in your hands. Clay slabs (pancakes) should be big enough to fit the template. It takes a while to flatten the clay - be patient.

STEP 3

Place the butterfly template onto the yellow slab of clay and trace it with a bbq skewer. Do not try to carve through clay at once--instead keep tracing several times until the wing comes out. Do the same with the other wing.

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STEP 4

Decorating the butterfly
Split blue clay in half. Using one half of blue and a little bit of pink clay, decorate the butterfly. If you place a circle onto the top right wing, you need to place the same circle onto the left top wing. Make sure you repeat the design, as if it is a mirror reflection.

STEP 5

Decorating the butterfly
Take the rest of the blue clay and split it in half. Make two coils - clay worms. To make a coil, roll clay between your hands and the table while slowly moving your hands apart from each other. Once you have two coils, wrap the outside edge of wings with this coil to make blue outline.

STEP 6

Attach wings to the body. Press one wing against the body, turn the butterfly over and drag some yellow clay onto the brown clay. Repeat for the second wing.

STEP 7

Make a yellow coil for antennae. Fold it in half and attach it to the head. Draw eyes on the head and stripes on the body of the butterfly.

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STEP 8

**Flower**
Take the pink piece of clay and split it into 3 parts. Then split each part in half. You will end up with 6 equal parts. These are future petals. Take left over yellow clay and pinch off a piece the size of one pink piece. This is the center of the flower.

STEP 9

Roll 6 pink pieces and 1 yellow piece into balls. Roll 6 pink balls into cylinders. Press onto the cylinder to squash it - you have a petal shape. Bend the petal slightly into an arch and attach to the center of the flower. Repeat with the rest of the petals.

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