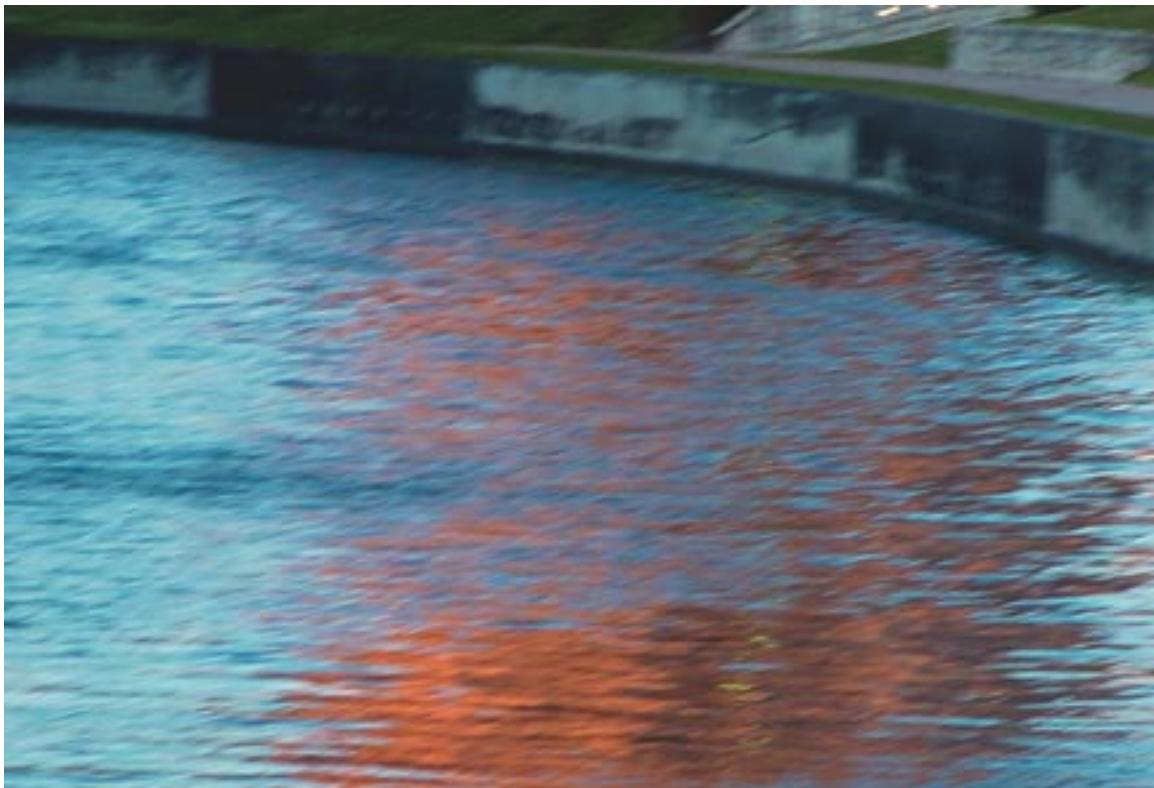


Water Tower

The Art of Light and Transparency: Build an Amazing Tower Using Light, Water, and Color



This lesson plan comes from a series of lessons developed in conjunction with the Moving Waters Workbook. These art-making activities are based on the principles of the [Visual Thinking Strategies](#), a student-centered, discovery-based method that uses art to teach thinking, communication skills, and visual literacy to young people.

Teaching art and environmental awareness through the VTS provides students with open-ended forums for discovery and reflection. The lessons are designed to be experimental and flexible, focusing on the process over the final product. Learn more about the VTS and how you can get involved on our website.

Goals

To encourage material and aesthetic discovery based on imperial evidence, collaboration and group discussion

Objectives

- To understand the qualities of opacity and translucency through experiments with color mixing and color saturation
- To create a modular group sculpture that can be tailored to individual students' aesthetic preferences
- To broaden students' understanding of the range of materials used in contemporary art practices.

Materials

- Two sheets of clear Plexiglas
- Varying sizes of clear glasses, either plastic or glass is fine.
- Eye droppers
- Food coloring
- Plastic spoons or straws
- Moveable light source, such as a clamp light, or exposed light bulb
- Camera

LESSON DESCRIPTION

This lesson is appropriate for all ages of students. It is a two-part lesson, the first part takes about an hour and a half, the second part of the lesson, a follow-up discussion is flexible in terms of time.

This project, which allows students to collaborate with one another while still ending up with an original work of art that is specific to their choices, has received high marks from students in my classroom. It does, however, require close monitoring on the part of the teacher. Building a pyramid of glasses of colored water is a delicate business. But that is exactly why I think my students responded so well to the project. It was both empowering and enlightening to create a sculpture out of non-traditional materials.

LESSON PROCEDURE

Introduction

- Introduce the lesson by showing students some examples of contemporary sculpture.
- Explain that in contemporary art-making, artists use all kinds of materials. Show:
 - Examples of use of alternative materials by artist Tom Friedman
 - Example of artwork by artist Jessica Stockholder
 - Example of artwork by Felix Gonzales Torres
- Explain that the class will be using water, color, and light to create a sculptural “water tower”
- Talk a little about the properties of opacity and translucency.

Opacity Impervious to light, so that images cannot be seen through it

Translucency 1. Allowing light to pass through, but only diffusely, so that objects on the other side cannot be clearly distinguished. 2. Having a glowing appearance, as if light were coming through

Hold the clamp light up to something translucent and ask your students, “What’s going on here?” Hold the clamp light up to something opaque and ask the same question.

Explain to students that the lesson will have three distinct parts, color-mixing, tower-building, and photographing the tower. Each student will have the chance to rearrange the tower in some way, creating an image that is uniquely their own.

MAIN ACTIVITY

Color Mixing

Divide students into small groups. Provide each group with a selection of glasses, several eye droppers, different colors of food coloring, plastic spoons or straws to move the color around, paper towels to clean up spills, and a pitcher of water. It's a good idea to be close to a sink so that students can dump out dirty water, and refill their pitchers.

Encourage students to experiment with color mixing and saturation.

What happens when only a little bit of color is added?

What happens when a lot is added?

What kinds of colors come from mixing colors?

Give students a time limit for this part of the project, as it could go on indefinitely, around 25 minutes is a pretty good period of time.

Tower Building

Collect all of the glasses from your students, and group the glasses according to size. Use the Plexiglas to create level platforms or shelves between the layers of glasses. Allow students to participate in the initial tower construction.

After the structure has been built, ask the students to stand back. Move the clamp light or light source behind different sections of the tower.

How do the colors change when the colored waters are illuminated?

Which colors are more translucent?

Which are more opaque?

Experiment with environmental lighting as well.

How do the colors change when the classroom lights are turned off?

Photographing the Tower

The next step is to let each student change the structure of the tower in some way, and to decide where the light source will be placed in their image. This will emphasize the modular structure of the sculpture, and allow students to create a piece that is uniquely their own.

Document each tower configuration with several photographs.

CLOSURE/CONCLUSION

Inform students that you will develop the photographs and that the class will have a follow up discussion to further explore the results of the project. Try to print the pictures large enough for group discussion to be feasible (larger than 5"x7").

Reflection

In the follow up discussion, ask each student to present one image of their sculpture. Ask the group:

What's going on in this picture?

What do you see to make you say that?

What more can you find?