

# STAINED GLASS SOLVENTS

**GRADE**

4-5

**FOCUS**

STEAM

**CONTENT AREAS**

SCIENCE + ART

## STANDARDS

**5-PS1-4.**

Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

**VA:Cr1.1.5a**

Combine ideas to generate an innovative idea for art-making.

## ASSESSMENT

### SCIENTIFIC ARTIST STATEMENT

Students write a statement that both describes their work and how the solvents effected the medium. Each artist statement should include:

- Which solvents were used, why they were chosen and how it effected the oil pastel.
- How the student designed their pattern and why they chose the textures and colors, as well as how the solvents helped to create their vision.

## MATERIALS

- Tubs of water, paper, pencils, sharpie markers, oil pastels, Q-Tips, small cups
- Isopropyl alcohol, vegetable oil, mineral oil
- Tiffany Glass and Delphi Glass websites

## TEACHER NOTES

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## ENGAGEMENT

Set up an experiment station with 3 tubs of water. Show students 3 different solvents: isopropyl rubbing alcohol, vegetable oil and mineral oil. Ask them to predict what will happen when each solvent is added to the water. Add each to the water and as a class, discuss the findings.

## TRANSITION

Share that students will be experimenting with these same 3 solvents using a different medium: oil pastels.

Provide each student with a plain piece of paper and ask them to draw three boxes. Then, provide them each with oil pastels and tell them to color each of the boxes with a pastel.

Provide each student with 3 Q-Tips and small containers of each solvent. Tell students to dip a Q-Tip into each solvent and then color one box. Repeat this process with each solvent. Students should then document the findings.

## ACTIVITY

1. Share that artists often use various techniques to produce different outcomes using the same medium. Share the information about Tiffany Glass: [https://en.wikipedia.org/wiki/Tiffany\\_glass](https://en.wikipedia.org/wiki/Tiffany_glass)
2. Explore each technique that Tiffany used to create different textures and variants within a single piece of stained glass. Ask students how they might recreate these textures and variants using their oil pastels and solvents.
3. View a sampling of free stained glass patterns: <http://www.delphiglass.com/free-patterns-projects/stained-glass-patterns/> Provide students with paper to create a pattern using a pencil, which can then be traced with sharpie marker.
4. Color in their pattern using the oil pastels. Transform the work by using the solvents.

**INQUIRY FOCUS:** How do solvents effect an outcome?