**Lesson Plan:** Fused Glass Sculptures  
**Grade level:** 6-12  
**Duration:** 1-2 class periods (45-60 min. each)

**Media Type:** glass (fusible)  
**Subject Integration:** Science

**Objective:** To use the work of glass artist Dan Neff to inspire original artwork.

**Assessment:**
Rubric:
- 4-Standards are exceeded
- 3-Standards are met
- 2-Standards may be met at a very low quality or with some exceptions
- 1-Standards not met
- 0-

**Vocabulary:**
Visual Arts Elements/Principles:

<table>
<thead>
<tr>
<th>color</th>
<th>shape</th>
<th>line</th>
<th>texture</th>
<th>balance</th>
<th>unity</th>
<th>proportion</th>
<th>form</th>
<th>value</th>
<th>space</th>
<th>contrast</th>
<th>emphasis</th>
<th>movement</th>
<th>pattern</th>
<th>rhythm</th>
</tr>
</thead>
</table>

**Materials and Procedure:**
- Various pieces of colored glass (must be used for glass fusing) COE 90 or 96
- Fusing kiln (local fusing shop might do fusing for small fee)
- Glass cutters
- Metallic Sharpie markers for student names on work
- Glass adhesive (highly recommend Weldbond brand glue)
- toothpicks

**Day 1:**
Introduce lesson by sharing Making It Up North video about Duluth artist, Dan Neff.  
Discuss video clip with students: “What did you see?” “What did you find interesting about Dan’s work?”
“What is a calculated risk?” “What is a ‘hot shop’?” “What is Dan’s background with glass?”
“How did he get started working with glass?” Dan names famous artist Dale Chihuly. Share
images of Dale Chihuly’s work with students. Introduce students to the process of glass fusing and how glass fusing is different than stained glass work, or Dan Neff’s glass work. Show students examples of glass fused artwork. Finish the class period by having student brainstorm and sketch out ideas for their own glass fused work.

Day 2:
Pass out various pieces of pre-cut fused glass pieces for students to create their own artwork. This link is very helpful:
https://www.theartofed.com/2016/12/12/simple-steps-supplies-get-started-glass-fusing/
I also find it helpful to have students create their work on paper plates with their names labeled on the plate. Once the student work is glued together, students can leave their completed work on the plate to dry. Glass is glued by using toothpick to apply small amount of glue to each piece being adhered. Glass fusing is quite simple for all ages; it mostly consists of deciding on a base, or bottom piece of glass, and then adding a second layer of design pieces. Once glued, finished pieces are put into kiln by instructor. I make a kiln map so that I can tell the student work apart when loading it into the kiln.

Day 3:
Students finish gluing their glass pieces together. Teacher puts pieces in kiln; kiln run time= one day. Several kiln loads need to happen to accommodate all student works.

Discussion Questions:
“What did you notice about Dan Neff’s artwork?” “What else did you see?” “Have you worked with glass before?” “Do you know anyone who works with glass?”

Essential Question(s): How do artists work? How do artists and designers determine whether a particular direction in their work is effective? How do artists and designers learn from trial and error?

Enduring Understanding: Artists and designers balance experimentation and safety, freedom and responsibility while developing and creating artworks.

Essential Question(s): How do artists and designers care for and maintain materials, tools, and equipment? Why is it important for safety and health to understand and follow correct procedures in handling materials, tools, and equipment? What responsibilities come with the freedom to create?
Resources:
https://www.theartofed.com/2017/02/17/fire-glass-kiln/ fused glass info
https://www.theartofed.com/2016/12/12/simple-steps-supplies-get-started-glass-fusing/ fused glass info
https://lakesuperiorartglass.com/collections/dan-neff
http://nafglass.com/
http://www.d.umn.edu/external-affairs/homepage/14/neff.html
http://duluthreader.com/articles/2014/11/06/4332_glass_artist_dan_neff-1


**National Standards for Visual Arts:**
VA:Cr2.1.Ila : Through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in a chosen art form.
VA:Cn10.1.Ia : Document the process of developing ideas from early stages to fully elaborated ideas.

VA:Cn10.1.6a : Generate a collection of ideas reflecting current interests and concerns that could be investigated in art-making.

**Science:** Students can describe how there is no loss of mass during a physical change, it simply changes form.