

# Fused Glass Pendants

## Objective

### Learn:

- about glass as an art medium
- basic vocabulary and techniques
- safety working with glass
- materials/tools

## Glass

- Glass fusing (aka, warm glass) is the process of heating glass in a kiln to join together two or more pieces of glass. Heat softens the glass at temperatures between 1100 and 1700 degrees Fahrenheit. The higher the heat the more fluid or molten it will become.
- When the right kind of glass is heated and then cooled properly, it will result in a fused glass piece that will be solid and unbroken.

## Glass Vocabulary

- **Art Glass:** Colored opaque and transparent glass used in glass fusing, flame/torch work, glass blowing and stained glass.
- **Coefficient of Expansion (COE):** Glass expands and contracts at different rates based on the COE. *Only COE96 will be used in this session.*
- **Contour Fuse:** When pieces of glass are heated until they are just hot enough to stick together and retain many of their original characteristics. 1150 to 1440 Fahrenheit.
- **Dichroic** (pronounced: dye-crow-ick) **glass:** Micro-layers of metals or oxides bonded to the glass giving the glass a shift of colors depending on the angle of view.
- **Dots:** Scrap, square pieces of glass that have been Full Fused into small dot shaped pieces.
- **Frit:** Glass that has been broken or ground into smaller pieces. It comes in different sizes: coarse, medium, fine and powder.
- **Full Fuse:** Joining two or more pieces of glass when heating them until they melt together forming a flat rounded surface. 1450 to 1550 Fahrenheit.
- **Jewelry Bails:** Oval or round metal pieces that are glued on or fused into glass which allows you to hang the glass piece from a necklace or link it to another object.
- **Shards:** Glass that has been cut or broken from a larger piece of glass.
- **Stringers:** Small thin round rods of glass that are approximately 1.5 mm thick (they look similar to angel hair pasta). They can be broken into smaller pieces and used as decoration or accents in a design.
- **Tack Fuse:** Heating two or more layers of glass in a glass kiln enough to make the edges a bit smoother and the glass stick/tack together. 1350 to 1450 Fahrenheit.

## Basic Safety Tips Working with Glass

- Always be alert and aware of glass edges, they are sharp. NEVER run your fingers along the edges of the glass.
- Wear goggles/eye protection.
- Small pieces of glass left on the work surface will cut you! PLEASE DO NOT wipe your work area clean with your hands. Use a damp paper towel to wipe down your area then throw it away when finished.
- Do NOT eating or drink while working with glass.
- ALWAYS Wash your hands after working with glass.

## Materials/Tools

In this session, **all the glass and materials** are provided. \*PLEASE bring your own eye protection. A brief overview of the other items will be given.

- Art Glass (COE96)
- \*Eye Protection (If you do not wear glasses, please bring your own eye protection.)
- Glue (Elmer's or White Rain Hair Spray)
- Paper and/or lint free towels
- Toothpicks
- Window cleaner OR rubbing alcohol/water (50/50)
- Jewelry Bail
- Necklace (black leather)

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- Breaker Pliers
  - Cutter/Cutter Oil
  - Grozer Pliers
  - Mosaic Cutters/Nippers
  - Running Pliers

## Project Objective:

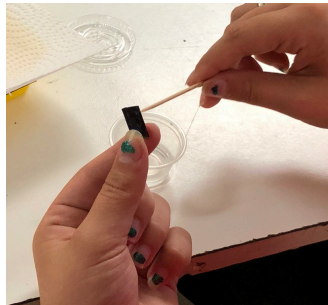
- Create two original designed fused glass pendant made with:
  - opaque and/or transparent glass
  - dichroic glass
- In addition, a Class Group Pendant will be made

## Project Instructions

1. Pick-up a paper plate to work on.
2. Choose a BASE color/shape.



3. Choose any frit, stringer or shard colors (not too many-you can always go back for more).
4. Arrange the pieces together until you are happy with the design.
5. Use the Elmer's glue or White Rain Hair Spray with a toothpick to glue your piece together. Only use a SMALL amounts of glue. The glue will burn off when fired.



6. All pieces from this session, will be fired to a Full Fuse or Contour Fuse in an electric Glass Kiln by the instructor and returned on Thursday, July 25th at 10:30 am in the Meadow Hall West Room.

## Finishing Pendants

Glue a **jewelry bail** onto the back of the fused glass pendants using E6000 glue.



## Resources:

<https://www.glass-fusing-made-easy.com/fusing-and-slumping.html#ixzz2dqnJbxxV>