

# MOSAICS 101

## Basic information on mosaic-making

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**What is a mosaic?** Something made with smaller pieces that create a larger design. Mosaic can be two-dimensional or three-dimensional.

**What can be used in a mosaic?** Anything you can stick to another surface! Of course glass and ceramic tiles, but also bottle caps, buttons, plastic toys, pebbles, etc. Traditional mosaics are made using tiles (called “tesserae”). There are a few main kinds:

- Vitreous glass ('vitreous' is from the Latin word for glass. In mosaics it refers to a specific type of glass, which is typically opaque.)
- Ceramic tiles
- Stained glass
- Cut glass (it comes in lots of shapes with a flat back so you can glue it easily)
- Smalti (a type of glass that comes in very beautiful colors and is quite expensive. It is meant to be hand-cut and has an uneven surface that reflects light beautifully.)

Almost all premade tiles come in various sizes and thicknesses. You can even get stained glass cut to specific sizes, although the color range is somewhat limited and it costs a LOT more than buying large sheets of glass and learning to cut it yourself. Many recycled tiles are available now too.

**How do I cut mosaics into smaller pieces?** You only really need a few tools:

- Nippers (can be used for ceramics, which are thicker and harder to cut, or for glass)
- Wheeled nippers (specifically for glass). These have small metal wheels that have sharp edges to cut tile. They come with a small allen wrench so you can move the wheels around when they get dull. There are many varieties of nippers, but I get by with just two most of the time.
- If you want to cut very specific shapes, you can invest in a good glass scorer and breaker. Buying a cheap one is NOT worth it. Learning to break glass cleanly and safely is a skill but one that most people can pick up quickly.

**What surface should I use for a mosaic?** A substrate is a fancy word for the surface you glue the mosaic pieces onto. You can use almost anything, depending on how durable and water-resistant your final product needs to be. Flat surfaces are easier to use. Some common substrates include:

- Wood boards
- Ceramic tiles (e.g., old floor tiles)
- Ceramic pots
- Furniture (e.g., table tops)
- Wood frames
- Concrete (e.g., stepping stones from garden centers)

**How should I glue my mosaic pieces?** For gluing to a flat surface (even if you will hang it up on a wall once it's done), you can use a non-toxic water-based glue such as:

- Weldbond (the favorite of many mosaicists, but most craft stores carry similar products that work just fine)
- Thinset (a thick adhesive that holds the tile where you put it until it dries) or another concrete adhesive, best for vertical and curved surfaces
- Versabond or other mortar that flexes so it doesn't crack, for outside surfaces that will be exposed to weather

**What else do I need to do to my mosaic?** Many mosaics are completed using a concrete-like paste called grout to fill in the spaces between individual pieces. After you finish tiling a mosaic, you can push or rub grout into the spaces between tiles. It hardens once it dries. You do not have to grout everything you mosaic. It is done for:

- Protecting the piece against wear and tear
- Protecting people from sharp edges
- Unifying the look of the piece, or making certain areas stand out
- Giving your piece a different look than it would have otherwise

**Grout** comes pre-mixed in some basic colors, but it doesn't last as long and you have little color choice. Making your own grout is almost as easy. Powdered grout is available in a lot of colors, and you can make your own colors by mixing in powder colorants or even acrylic paints.

You can buy grout in tile departments of most any home store, but the quantity you can get tends to be large. You can buy large bags of grout in a large range of colors at any tile showroom. Smaller quantities can be found online.

If you will be using the piece in a damp or wet place (bathroom, outdoors, etc.) or will get it dirty (kids' hands, food, etc.), you should seal the grout. Look for sealer that is clear, doesn't smell, and is nontoxic (don't buy it otherwise!). It cleans up easily with water. There are two main kinds: one that mixes with the grout, and one that you brush or sponge on afterward, which is easier to use. Either works fine. Both are available in any well-stocked tile department or hardware store.

**Isn't working with mosaics dangerous?** Working with glass and other mosaic materials carries risk, but if you handle the materials carefully, you can avoid harming yourself (or others!). Here are some basic precautions to take when handling glass:

- Don't work in an area where people or animals may have bare feet or play on the floor.
- Clean up after you finish working, or work in a space you can close off.
- Wash your hands before you touch your face.
- Wear latex gloves when you handle grout or exterior mortar, so your hands don't get dried out.
- When mixing grout or mortar, avoid breathing the dust, and wear a dust mask that is rated N95; look for these letters on the package or mask.
- Use the right tools for the job. Make sure the wheels of your nippers are sharp.
- Hold both sides of a tile when cutting it or cup it into your hand, so it doesn't fly off and hurt someone. Wear goggles if you can't be sure to do this, and don't cut glass near other people. Children should never cut or handle glass or broken tiles without adult supervision!

### **Where can I get mosaic supplies?**

- **Tiles:** many online mosaic stores (Google mosaic or stained glass); tile/bathroom/kitchen departments of home/hardware stores
- **Weldbond:** available at many online mosaics stores, but very hard to find otherwise. You can substitute any good water-based craft glue (Aileen's, etc.), which you can find easily in local crafting stores.
- **Thinset and other mortars:** tile/bathroom/kitchen departments of home/hardware stores
- **Grout and grout sealers:** Basic colors at tile/bathroom/kitchen departments of home/hardware stores; larger variety at online mosaic stores and at tile/bathroom/kitchen stores
- **Nippers:** Home store tile departments, online mosaic stores

**More questions?** If you have a question I haven't answered about how to start working in mosaics, feel free to email me at [glassandgrout@gmail.com](mailto:glassandgrout@gmail.com).