

# Beginner's Guide to Setting Up A Basic Beadmaking Studio

Text and photos by Ania Kyte



I would like to start with the typical declaration: my name is Ania Kyte and I am addicted to making glass beads! I currently live in the beautiful province of British Columbia, Canada, where I take care of my husband, my son, our house, two turtles and two huge tropical aquariums. In addition, I work as a research consultant, I organize a local monthly beadwork group call the Fraser Valley Beaders Group ([www.crafter.org/beading/fvb/](http://www.crafter.org/beading/fvb/)), I am the current president of the Canadian flameworker's organization called Pacific Pyros ([www.pacificpyros.org](http://www.pacificpyros.org)), I teach various levels of bead-making and jewelry-making classes and, of course, I make beads!

On September 16, 2002, I took a class with a local artisan, and became passionate about the ancient art of lampworking, which involves melting glass over a torch flame to create unique, hand-formed glass beads—one bead at a time. Since the beginning of my beadmaking career, I have been using a very basic set-up to create my beads: a Hot Head torch, a tank of propane gas, a kiln and beautiful glass rods. Over time, I have continued to promote this set-up for all of my beginner students. I firmly believe that basic tools, lots of practice and good techniques are enough to start creating beautiful beads. I receive many requests for information about getting started with beadmaking and I thought it would be a great idea to pull it all together into a comprehensive outline of the supplies, equipment and tools required to set up a basic beginner beadmaking studio.



**1. Take a Class.** Take a beginner class from a practicing lampwork artist. This is a great way to find out whether making beads is something you want to pursue as a long-term interest. It will also help you decide whether you want to invest in setting up your own studio. To find a teacher, contact your local artglass supply shop—they might be able to recommend an artist who teaches in your area. A beginner class can cost anywhere from \$50 for a group class to \$150 for a private session (see photo 2).

**2. Gather Supplies.** Make a list of the equipment and supplies you will need. The list should include the following items, which will cost in the range of \$500 - \$1,500:

#### Equipment:

- Hot Head torch
- Torch mounting hardware (wood block, screws, u-clamp, hose-clamp, etc.)
- Propane gas tank (BBQ-sized: 5, 10 or 25 lb.)
- Gas hose (4', 8', or 10', or as long as possible)
- Marble block
- Water jar
- Coffee tin filled with sand/gravel
- Fire extinguisher
- Storage containers/PVC piping
- Annealing kiln (with digital controller if possible)
- Work table (steady, solid table covered with ceramic tile or sheet metal, etc.)
- Rolling office chair or stool
- Ventilated work space

#### Tools:

- Stainless steel mandrels (various thicknesses: 10 @ 1/16", and 10 @ 3/32")
- Didymium safety glasses
- Needle nose pliers
- Steel tweezers, razorblade/Exacto knife dental picks, etc.
- Frit holders (jars, spoons, can lids, etc.)

- Graphite paddle and/or torch-mounted graphite marver
- Spark striker
- Ceramic fiber blanket
- Frit holders (jars, spoons, can lids, etc.)
- Dremel drill and drill bits

#### Supplies:

- 3 lbs assorted colors of Moretti/Effetre or Vetrofond glass rods
- Compatible glass frit
- Silver leaf/silver foil
- Bead release (Sludge, Foster Fire, Alice's, etc.)
- Propane gas
- Old jeans
- Cotton socks/cotton shoes
- Long-sleeved cotton shirt
- Apron (leather, linen or denim)

The above is a basic list of equipment, tools and supplies. Over time, you will acquire more specialized tools such as molds, presses, picks, mashers, frits, mandrels, etc. Start with the basics until you get a better grasp of the beginning techniques. There's no point in spending your money on tools that you might not use. Once you are more familiar with the types of beads you like to make, I promise that you will quickly expand your collection.

**3. Select a Space.** Once you gather all the above equipment and you are ready to set it up, you need to decide on a suitable space to set up your studio. You should consider several factors when choosing your new workspace.

• **Good ventilation.** You need to ensure that fresh air comes into the studio to replace the oxygen used by the torch flame. Also, the buildup of hot air, carbon monoxide, carbon dioxide and other particles must have a way of escaping the studio space, either through an open door, another open window (see photo 3) creating a cross-draft, or most-prefer-



ably, a ventilation hood and fan above the workspace. Please note: if you experience headaches, dizziness, shortness of breath or coughing while you are at the torch, you most likely do not have adequate ventilation and will need to reconsider your studio set-up (see photo 3).

• **Flooring.** Make sure that the floor of your studio is ceramic tile, cement or at least a thick sheet of plywood over carpeting. Hot glass will inevitably fall onto the floor, so you have to make sure that you will not start a fire or burn holes into your flooring (see photo 4).

• **Power.** In order to plug in your kiln, radio, lighting, ventilation fan and Dremel charger, you will need a nearby power source. Be careful not to overload one plug with too many items, since regular household fuses might not be able to handle too much power draw on one plug.

• **Lighting.** Good lighting is essential; both while you are selecting glass rod colors and while you are at the torch. Make sure the light is not directed at your face or set up behind you; overhead lighting is best. Keep in mind that direct sunlight might make it difficult to see the flame.

• **Safety.** Note that the torch will be noisy; glass fragments will be dispersed throughout your work space, and bead-making tools are sharp and/or dangerous. Take all of this into consideration if you have small children or animals, since you will need to find a way to keep them out of the studio area.





**4. Set up the studio.** Once you have selected your studio space, place your worktable, chair and kiln in an arrangement suitable to your torch requirements. Gather your equipment, tools and supplies in that space and prepare to set up your work area (see photo 5).

**a. Prepare the bead release and mandrels.** If you purchased bead release in a powder form, mix a small batch in a little jar of water. It should be the consistency of a smooth pancake batter. Put a couple of small pebbles or beads into the jar to help the bead release stay smooth when you shake the jar.

- Brand new mandrels are very smooth and sometimes have a light coating of oil. In order for the bead release to stick to the

mandrel, prepare the mandrel by scrubbing the last two inches of each mandrel with light sandpaper.

- Dip the last two inches of each mandrel in the bead release.

- Place the mandrels upright in a large tin filled with sand/gravel or into holes drilled into a block of wood.

- Let the bead release dry over several hours—or if you purchased bead release such as SludgePlus, you can dry the bead release in the flame before making each bead (see photos 6 and 7).

**b. Fill the propane tank.** Take your propane tank to your local gas station or propane dealer to have it filled.



- Please note that if you purchased a brand new, empty propane tank, you will need to ask the dealer to ‘purge’ the oxygen inside of the tank before filling it with propane.

- Attach one end of the gas hose to the propane tank. Keep in mind that propane is a volatile, liquid gas; therefore, you will connect the gas hose by turning it to the left rather than to the right.

- Depending on the size of the tank and the number of hours you spend at the torch each month, a tank of propane will last you for many happy hours of beadmaking.

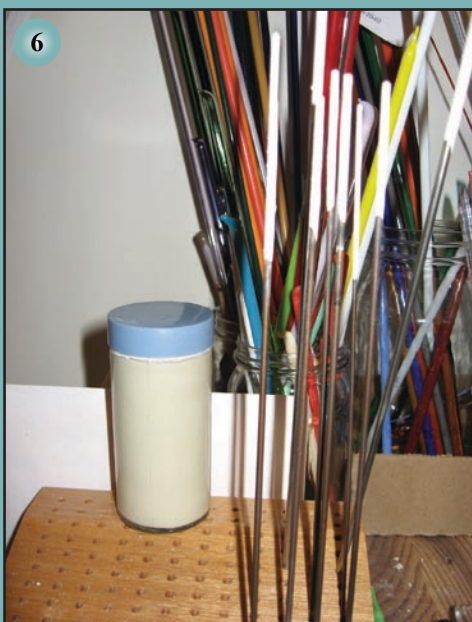
- Remember that many insurance policies do not permit the storage of propane tanks in a residence or garage. Check with your insurance company. If you cannot find a way to permanently place your propane tank outside your studio, then for your own safety, disconnect the propane tank after each torching session and carry it outside when not in use (see photo 8).

**c. Hook up the torch.** Using nails or screws, attach a small block of wood to your work table.

- Attach the hose-clamp to the wood block and place the round brass base of the torch into the hose-clamp. Tighten the hose-clamp to hold the base of the torch using a flat-head screwdriver.

- Using the u-clamp, secure the neck of the torch to the wood block. This will prevent the torch from moving left or right if bumped.

- As an option, attach a torch-mounted graphite marver to the middle of the torch neck.







- Attach the end of the gas hose to the bottom of the torch (see photos 9 and 10).

**d. Clean, sort and arrange the glass.**

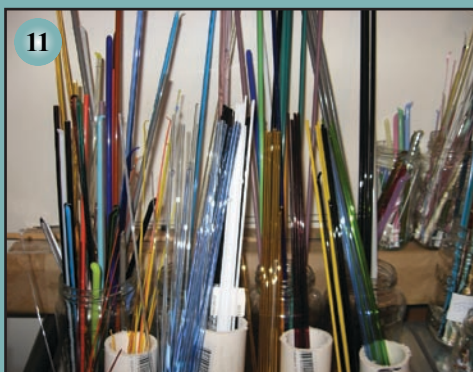
Clean the rods of glass using dishwashing soap and warm water. You can also use water and vinegar or window cleaner. Wipe the rods dry with a cotton cloth.

- It is your personal preference how you store your glass, since there are several great methods. You may cut down PVC pipes and arrange your glass by color into each pipe. You may store your rods upright on your worktable in sturdy jars. Remember that glass is heavy; eventually, you will very likely accumulate pounds and pounds of glass, so prepare for expanding your glass storage system.

- It is also a good idea to consider storage for your thin glass stringer. You will accumulate a lot of stringer on your worktable over time and you will want to find ways of sorting it. Small glass jars or thin PVC pipes standing upright work well for this purpose.

- Use glass jars, flat spoons or metal lids for holding frit in your worktable. Keep out only the frit you plan to use during each torch session; put the rest back into baggies or jars so they do not mix together or spill all over your work area (see photo 11, 12, 13 and 14).

**e. Arrange the tools.** Set out your tools in a way that makes them easily accessible while you are at the torch.



- Keep the tools close to you so that you don't have to reach across the torch flame or scramble for a tool in the middle of making a bead.

- You can lay the tools on your worktable, store them in a caddy or use a magnetic strip to hold them to the side of your worktable.

- If you are not using your kiln to anneal directly, place your ceramic fiber blanket nearby so that you can put beads away for slow cooling without having to go far from the torch.

- Be sure to have a jar of water on your worktable. It will be useful for cooling tools—and soothing burns.

- Keep a fire extinguisher within reach in your studio.

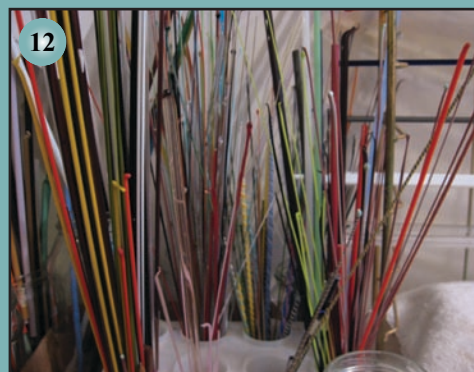
Tools (*from left*): tweezers, razorblade, carving tool, dental pick, pliers, tungsten pick, graphite paddle; top: striker (see photo 15).

Water jar, marble block (see photo 16).  
Didymium, fiberblanket (see photo 17).  
Fire extinguisher, frit storage shelf (see photo 18).  
Worktable setup (see photo 19).

**f. Set up the kiln.** Place your kiln near a direct power outlet, but make sure it's located at least several inches from a wall to prevent heat damage.

- If possible, arrange for the kiln to be on level with your worktable so that it's comfortable to place beads directly into the kiln.

- If you have a digital controller, program the kiln with an annealing schedule as per the manufacturer's recommendations and instructions.







- Holding the bead under water—but keeping the Dremel out of the water—turn on the Dremel and move the drill bit in and out of the bead hole until all the bead release is removed.

Kiln bead door (see photo 23).

**h. Store the beads.** As your stash of beautiful new beads starts to grow, you will want to find a way to store the beads and, of course, to show them off!

- Take a look in your local craft supply store or dollar store for great storage containers with divided compartments and tightly-fitting lids.

- Organize your beads by color, by size, or by type. If you are planning on selling your beads, label the compartments with prices (see photo 24).

I hope that this article is helpful in setting up your new studio space. Enjoy your torch time and practice playing with the glass to make your own beautiful, unique little works of art: glass beads! —Ania Kyte makes jewelry using her own beads and teaches beadmaking from her studio in Mission, British Columbia, Canada. To learn more about her or view more of her work, go to [www.turtlebeads.com](http://www.turtlebeads.com).

If you have any questions or need additional info about this article, go to the Hotglass Forum [www.glassline.net/forums/](http://www.glassline.net/forums/). Click on “Article Discussion” and submit your questions to Kyte (turtlebeads).

- Place stainless steel racks or kiln bricks inside of the kiln on the same level as the bead door. This will provide a resting place for the beads on mandrels during the annealing process.

Kiln controller (see photo 20).

Kiln bead door (see photo 21).

Kiln inside (see photo 22).

**g. Clean the beads.** On a tray, arrange a bowl of warm water, a pair of pliers, a cloth, drill bits and a Dremel tool.

- Remove the beads from the mandrels. If the beads are stubborn, use a pair of pliers to hold onto the mandrel near the bead and use your fingers to twist the bead off the mandrel. Soaking the beads in a bowl of warm water may also help loosen the bead from the mandrel.

- Attach a drill bit to the Dremel. Make sure the bit is the same size, or smaller, than the mandrel hole in the bead (i.e., use a 3/32" drill bit to clean holes from a 3/3" mandrel).

