## **Beginning Bead Making**

**Basic Tools**: these tools are all the tools you really need to start making some great beads. There are however many many more to choose from depending on your needs.

Mandrels of various diameters – steel rods used to wrap molten glass onto. Various diameters make different diameter core holes in the beads.

Bead release - a clay like material to coat the mandrel so the beads do not stick to the mandrel - can be store bought or made. I make my own.

Hot head torch – one type of torch used to melt glass. Another would be oxygen propane

Mapp gas – used to fuel the hot head.

Frame - a metal z shaped bar of metal used to hold the Mapp gas cylinder

Large c-clamp –used to hold the frame onto the table

Striker plate (recommended) – used to light the torch. Other options are matches, or lighter

\*FIRE EXTINGUISHER\* - in case things get out of hand

Fiber blanket – used to slowly cool the glass beads. Other options are vermiculite, or a bead kiln

Flat marver – a graphite paddle used to shape the glass.

Pick – a tungsten or steel rod with a point on it used to rake, feather, or poke depressions in the glass.

Glass rods – colored glass rods used to make the beads. I use murrano glass with a coe of 104 but other options are available. You can also use scraps of stained glass.

Vice grips – used to hold the mandrel when removing the finished, cooled bead.

Safety glasses – didymium coated lenses used to protect the eyes from light flaring. Also used to protect the eyes in general.

Rod rack – a rack used to hold your hot glass rods when you are not using them.

Steel or metal tray – used to protect your work surface.

Tweezers – used to pick off excess glass or to twist molten glass.

Knife – used to make a depression in the glass all the way around the bead.

## **Terms:**

Coe – coefficient of expansion - how much a material expands and contracts when heated or cooled.

Thermal shock – when really hot meets cold, stresses build up causing the glass to break.

Stress fracture – if you use glass with 2 different coe's, the two glasses will contract at different rates causing stresses to be built up. The glass will crack in order to relieve these stresses.

Oxidized – more oxygen in the gas Reduced – less oxygen in the gas

Raking or feathering – moving melted glass with a pick or rake

Annealing – heating up the glass beads so that the stress in the beads become equalized.

Millifiori – one thousand flowers – small rods or canes of glass with patterns in the end.

Stringer – a very thin rod of glass – only a few millimeters in diameter

## **Books:**

Making Glass Beads by Cindy Jenkins

Glass Beads by Louise Mehaffey

Creating Lamp Worked Beads by Karen Leonardo

Glass Bead Workshop by Jeri Warhaftig

## **Sources of supplies:**

Rio Grande www.riogrande.com

Delphi Glass <u>www.delphiglass.com</u>

Hobby lobby www.hobbylobby.com

Frantz art and glass supply <u>www.frantzartglass.com</u> (I think they have the best prices so far).

Or do a search on lampworking supplies and start clicking.

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