

Three Clasps in Three Days – Tools & Materials List

Tools List

Hand Tools

- Files
 - Large (6"-8") hand files, including a barrette or flat file, a crossing or half round file
 - Small set of needle or escarpments (include round, flat, square, triangle, and chenier/hinge file) – Eurotools makes a good cheap set, Grobet makes a good but pricy set
- Measuring tools (ruler, dividers, small square)
- Pliers (flat, needle nose, half round)
- Punch or scribe
- Rawhide, wood, or Delrin mallet
- Saw
- Bench pin & steel block
- Beeswax or Bur Life (solid, not liquid)
- Flex shaft or drill press

Soldering Station

- Torch/soldering gear
- 3rd Hand
- Hard, Medium, Easy solder
- Iron binding wire (c. 18-22 gauge range)

Other

- Old butter knife (will be modified in class)
- Sandpaper – various grits including 220 or 320
- Selection of small drill bits
- Small ball bur
- Separating disks (get lots – these break easily!) – I like Moore's 7/8"
- Sharpie marker
- Heavy paper or manilla folder
- Various blades (1, 1/0, 2/0 range)

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Tools List (cont'd)

Nice to have:

- Tube cutting jig and/or miter cutting jig
- Drill press
- Forming mandrels and/or ring mandrel
- Pattern sheet/rolling mill for adding texture to sheet metal
- Sanding disks, various grits
- Split ring mandrel
- Stone setting tools
- Parallel jaw pliers

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Materials

MATERIALS NOTES: *The materials list is shown in two ways – first, by overall general list, on the assumption that you will eventually be making four clasps (open toggle, lentiform toggle, box clasp, and hinge clasp). The second is sorted by approximate need for each clasp type, so you can pick and choose if, say, you don't want to make both an open and lentiform toggle clasp. The overall list is easier to shop if you don't have most materials, however, the itemized list sometimes gives options for gauges and such, so you may already have them on hand.*

*In all projects, **if you want to save money**, you can make copper or brass mock-ups. If doing so in brass, purchase same gauges listed, **but in copper, go one or two gauges HEAVIER** than the list recommends. Note that both copper and brass are harder to solder due to oxidation, so you'll have some extra challenges along the way.*

The only item that really doesn't have a lot of flex is the tubing and half-round combo for the hinge clasp – snug fit is important here. If you have other tubing and gauges of half round to use instead, what you need is something that fits snugly inside the tubing when folded tightly in half, leaving about a 26g sheet width gap between the flat sides in the middle. The tubing and half round I've linked to at Rio fit very well.

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Overall Shopping List

Easier to shop this way, but you'll have some overages

Clasp:

- 18g Sheet - 1" x 4"
- 20 g sheet - 6" x 4"
- 22 g sheet – 4" x 2"

Wire:

- 6" – 10 g half round wire – Rio Item 100410 - <https://www.riogrande.com/product/sterling-silver-half-round-wire-10-ga-dead-soft/100410>
- 2" - 10-14 g round wire
- 12" - 18 g round wire

Tubing (only sold at Rio in 1' lengths – split with a friend or have more for later clasps!)

- 2" - Small tubing – OD 1.45mm – Rio Item #100099 - <https://www.riogrande.com/product/sterling-silver-1-45mm-seamless-tubing-hard-12-length/100099>
- 3" 4.11 OD, 3.1 ID Heavy wall tubing – Rio Item 100426 <https://www.riogrande.com/product/Sterling-Silver-412mm-Seamless-Heavy-Wall-Tubing-Hard-12-Length/100426>

Miscellaneous

- 2 - Decorative plunger elements (or make from scraps during class)
 - Cabochon w/ bezel (8mm or larger)
 - Water droplet casting
 - Melted/flattened ball
 - Heavy disc – (8mm or larger)
- Chain (for at least two necklaces)

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Materials by Individual Clasp Type

(Don't double shop with the prior list!)

Open Toggle Clasp Materials

Clasp:

- 18g Sheet – c. ½" wide by c. 3-4" length
- 18g Wire – c. 2" for connectors
- Chain

Safety Catch:

- Small tubing – OD 1.45mm – Rio Item #100099 -
<https://www.riogrande.com/product/sterling-silver-1-45mm-seamless-tubing-hard-12-length/100099>
- 2" - 18g round wire
- Scrap of balled wire

Lentil Toggle Clasp Materials

Clasp:

- 20 gauge sheet for walls – c. ½" wide by c. 3-4" length
- 20, 22, or 24 gauge sheet for top/bottom – c. 2"x4"
- 18 g round wire- c. 2" for connectors
- Chain

Safety Catch:

- Small tubing – OD 1.45mm – Rio Item #100099 -
<https://www.riogrande.com/product/sterling-silver-1-45mm-seamless-tubing-hard-12-length/100099>
- 2" - 18g round wire
- Scrap of balled wire

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Box Clasp Materials

- 3" x 2" strip of 20 g Sterling Silver sheet (can also use 22 g if working small) – More if wanting to build into a hollow form
 - If using copper, go thicker (20 or even 18 g)
 - If using brass, you can stay at 22 gauge
- c. 2" Scrap of heavy gauge wire or sheet (10 – 14 gauge or so)
- Small round bezel and stone, water cast drop, or heavy gauge sheet scrap (c. 6-8 mm or larger)

Hinge Clasp Materials

- 3" 4.11 OD, 3.1 ID Heavy gauge tubing – Rio Item 100426
<https://www.riogrande.com/product/Sterling-Silver-412mm-Seamless-Heavy-Wall-Tubing-Hard-12-Length/100426>
- 6" - 10g half round wire – half hard is ok – Rio Item 100410 -
<https://www.riogrande.com/product/sterling-silver-half-round-wire-10-ga-dead-soft/100410>
- 18, 20, or 22 g sheet
 - Use 22 g or 20 g if making a hollow form frame connector (c. 6" x 1")
 - Use 18 g or 20 g if making a flat sheet connector (c. 4" x 1")
- Snippet of scrap sheet (24 gauge – can make out of scraps from your heavier gauge)
- Decorative plunger element – cabochon w/ bezel (such as 8mm or larger), water droplet, melted/flattened ball, heavy disc – c.8mm or larger)