

Jewelry Making — Workbook

This workbook turns the course into bench practice. Each section maps to a course module and gives you exercises to build hand skills, worksheets to record what actually happens with your wire, beads, and torch, and checklists to make safe, sound results repeatable. Work through it with tools and metal in front of you, and keep your filled-in pages as your personal studio reference and a record of what sells.

Materials, Tools, and Wire Foundations

Build a starter tool kit, learn gauge and temper, and drill the wrapped loops and jump rings every piece depends on.

Exercise: The Ten-Loop Drill and Three-Ring Closure

Using 20 gauge dead-soft copper, make ten wrapped loops in a row, aiming for two or three even wraps and a tucked, snag-free tail on each. Then cut three jump rings from a coil on a mandrel and close each one with two pliers so no light shows through the seam. Mark your round-nose pliers with a permanent marker at the spot that gives a loop size you like so future loops match.

- Which loop number was your first clean one, and what changed between loop one and that loop?

- Did any tails stay proud or scratchy, and how did you fix the tuck?

- When you held each closed jump ring to the light, which seams still showed a gap, and why?

Worksheet: Wire and Metal Selection Sheet

Before buying wire, fill this out for two candidate spools you are comparing, then circle the one you will commit to for your first projects.

Metal (copper, brass, sterling silver, gold-fill)

Gauge (AWG)

Temper (dead-soft, half-hard, full-hard)

Intended use (wrapping, links, clasps, structural)

Skin-safe for pierced ears (yes or no)

Coil length and price

Price per foot or per meter

Your decision and reason

Checklist: Starter Bench Setup Checklist

- Chain-nose, round-nose, flush cutters, and nylon-jaw pliers acquired (box-joint preferred)
- Bead mat down and a scrap-wire bowl with a magnet nearby
- One bright daylight-balanced light (4000 to 5000 K) positioned directionally
- Work raised close to chest height to protect neck and wrists
- Caliper on the bench to check gauge and hole sizes
- Eye protection within reach for cutting and hammering

Beading and Gemstone Stringing

Pick stringing materials by job, crimp a secure hidden termination, knot pearls, and design with a focal point and a repeat.

Exercise: Crimp a Bracelet to a Target Length

Measure a wrist, add 1.5 to 2.5 cm for bead size and ease, and write the finished length before you string. String a bracelet on 7- or 19-strand flexible beading wire, set both crimps using the two-notch fold-and-round method, hide both tails back through beads, and add crimp covers. Hold the piece vertically to settle the beads before setting the second crimp so there is no exposed wire.

- What was your target finished length, and how close did the finished piece measure?

- Did your first crimp fold-and-round cleanly, or did it squash flat, and what did you adjust?

- Was there any slack showing wire between beads, and how did you remove it?

Worksheet: Stringing Material Decision Sheet

For a design you want to make, work through this sheet to pick the right stringing material before you buy beads.

Design name and bead types

Heaviest bead diameter (mm) and smallest hole diameter (mm)

Softest stone and its Mohs hardness

Will it be knotted, crimped, or strung on stretch

Chosen stringing material and strand count or weight

Termination method (crimp, French wire and knot, glued)

Finished length target

Care note for the wearer (chemicals, lotion, storage)

Worksheet: Color and Proportion Planner

Plan a piece on paper before stringing so it reads as designed rather than assembled at random.
Focal point bead or component (what makes it stand out)

Color scheme (analogous or complementary, list the colors)

Element repeated at least three times

Metal tone for all findings (silver, gold, mixed deliberately)

Symmetry or rule-of-thirds layout sketch

Total bead count and spacing notes

Checklist: Secure Stringing Checklist

- [] Bead holes checked against the wire with a caliper or test pass before buying the strand
- [] Crimp size matched to wire diameter (for example 2 mm crimp for 0.30 to 0.46 mm wire)
- [] Crimps folded and rounded with crimping pliers, never flat-squashed
- [] Both wire tails hidden back through beads and trimmed flush inside a bead
- [] Soft or valuable stones knotted on silk with French wire at the clasp
- [] Clasp strength matched to the weight of the piece

Metalsmithing Basics: Sawing, Filing, and Soldering

Saw a clean blank, file and sand through grits, anneal and texture, and complete a safe soldered silver join.

Exercise: Saw, File, and Solder a Simple Shape

Transfer a simple shape (a leaf, a disc, or a geometric pendant) onto 20 to 24 gauge copper or sterling sheet. Pierce it with a 2/0 jeweler's saw blade using light vertical strokes, file the edge on the push stroke only, and sand through 220, 400, then 600 grit. Then practice one soldered joint: solder a jump ring closed or solder a bail to the back, fluxing the joint, heating the whole piece, and pickling the result clean.

- How many blades did you break, and what were you doing when each broke?

- After sanding through the grits, were there leftover deep scratches, and which grit did you rush?

- Did the solder flow into the joint or ball up on top, and was it a heat problem or a fit problem?

Worksheet: Solder Job Planning Sheet

Fill this out before each soldering session so you choose the right solder order and set up safely.
Piece and number of joints

Solder grade for each joint (hard first, then medium, then easy)

Metal and approximate gauge or thickness

Flux used

Heat source (butane or propane torch)

Pickle type and copper tongs ready (yes or no)

Ventilation and fire extinguisher present (yes or no)

Result and what to change next time

Checklist: Hot-Work Safety and Setup Checklist

- Heatproof soldering board or honeycomb block on a non-flammable surface
- Pickle pot warm with copper tongs (never steel) standing by
- Flux applied and join surfaces clean and tight-fitting
- Ventilation on and a fire extinguisher within reach
- Hair tied back, sleeves secured, eye protection on
- Quench container of water positioned away from the torch

Finishing, Sizing, and Selling Your Work

Patina and polish for a professional finish, size rings and attach findings, and photograph and price work to make money.

Exercise: Finish and Price One Sellable Piece

Take one completed piece through a full finish: apply patina if it has texture, polish the high points back with Tripoli then rouge (or tumble with steel shot), clean off all compound, and seal if it is copper or brass. Then photograph it in soft diffused light on a plain background plus one shot on a hand for scale, and run it through the pricing formula to set a wholesale and retail number.

- Did the patina-then-polish step give clean contrast, or did dark linger on high points?
- Looking at your photos, can a buyer judge the true size and color, and what would you reshoot?
- What retail price did the formula give, and were you tempted to undercut it, and why?

Worksheet: Piece Costing and Pricing Sheet

Complete one row of the costing math for a finished piece so your price covers materials, time, overhead, and margin.

Piece name

Material cost (wire, beads, findings, solder, patina)

Time to make (minutes) and your hourly rate

Labor cost (time times rate)

Overhead share (tools, studio, packaging, fees)

Base cost (materials plus labor plus overhead)

Wholesale price (base times multiplier)

Retail price (roughly double wholesale)

Checklist: Ready-to-Sell Checklist

- Piece fully finished with no sharp edges or proud wire tails
- Findings hypoallergenic and matched to the weight of the piece
- Ring or length sized correctly and test-fitted
- Clean product photos plus one scale shot taken
- Honest description written (sterling versus plated, any nickel content stated)
- Price covers materials, time, overhead, and margin
- Care card or note included for the buyer

Your Action Plan

1. Buy a starter kit: chain-nose, round-nose, flush cutters, nylon-jaw pliers, a bead mat, and spools of 26, 24, 20, and 18 gauge copper to practice on.
2. Drill wrapped loops and jump-ring closures in copper until ten in a row come out clean and snag-free.
3. String and crimp one bracelet to a measured target length with hidden tails and crimp covers.
4. Knot a short pearl or gemstone strand on silk with French wire at the clasp.
5. Set up a small metalsmithing station and saw, file, and sand one clean blank through 220, 400, and 600 grit.
6. Make one safe soldered silver join (close a jump ring or attach a bail) and pickle it clean.
7. Anneal, texture, and form one cuff or band, sizing a test ring in copper first.
8. Finish a piece fully with patina, polish, and sealing, then store silver in anti-tarnish bags.
9. Photograph three finished pieces in diffused light with one scale shot each.
10. Cost and price your first five pieces with the formula, then list or show them at a fair and note what sells.

