ESSENTIAL BEADING TECHNIQUES
Basic Skills and Concepts

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Introduction

The lure of beads — for many of us, they are simply irresistible. How delightful to discover that with a few tools and a bit of know-how, you can create a stunning array of jewelry, artwork, and objects. In this PDF — the first in a series of four — we introduce you to the supplies and techniques you’ll need as you develop your understanding of this highly engrossing pastime. Keep your eyes peeled for future installments that will help you build your beading and jewelry-making skills.

Supplies

Here are basic supplies you’ll need to start making jewelry. To learn about the tools you’ll need, see p. 4.

**BEADS AND SPACERS**

Beads are available in just about every material, size, color, and shape you can imagine. String spacers to set off the beads. Spacers can be made of base metal, silver, or gold. Unless you’re making mixed-metal jewelry, match the finish of your spacers, crimp beads, jump rings, and clasp.

**STRINGING MATERIAL**

Flexible beading wire (p. 8), memory wire (p. 6), beading cord, leather, suede, fibers, and elastic are good options for stringing beads. If desired, use a needle to make stringing faster and easier. You can finish your strung project with crimp beads, crimp ends, or knots.

**CHAIN**

You can find chain in many styles and finishes, including base metal or plated varieties, which cost less than sterling silver or gold-filled versions. The most basic style is cable chain. Buy precut necklace- or bracelet-length chain with a clasp already attached, or purchase chain by the foot.

**HEAD PINS**

A head pin is a wire with a little nub (head) at one end. It looks like a long, skinny nail. You’ll need head pins to string beads for dangles. Head pins come in different gauges and lengths, but 2-in. (5 cm) 22- or 24-gauge head pins work for most projects. An eye pin has a loop (instead of a flat head) at the end. You can make your own with wire, but if you need to make lots of dangles, eye pins will save you time.

**JUMP RINGS AND SPLIT RINGS**

Jump rings are small wire circles used to connect components (like a chain and a clasp). Soldered jump rings are permanently closed. A split ring (which looks like the ring on a keychain) is another option for attaching components.

**CRIMP BEADS**

These small round or tube-shaped metal beads secure flexible beading wire to a clasp. You can flatten them with chainnose pliers or make a folded crimp with crimping pliers. A folded crimp can also be hidden inside a large-hole bead.

**CLASPS**

You’ll need a clasp to connect the ends of your necklace or bracelet. For a simple, secure hold, try a lobster claw clasp on one end and a soldered jump ring on the other. Some clasps (such as toggles, box clasps, and slide clasps) have two halves that link together.

**EARRING FINDINGS**

Earrings come in a variety of styles, including French hooks, kidney wires, lever-backs, hoops, earring threads, and posts. Each style allows you to attach dangles or other jewelry components (like chandelier findings).

**WIRE**

The higher the number (gauge) of wire, the finer it is. Keep a few feet of sterling silver and gold-filled wire in 22- and 24-gauges on hand for making loops and dangles. Wire comes in a range of hardnesses. The softer the wire, the easier it is to shape. Half-hard wire is still easy to shape but can withstand some stress, so it works well for most projects. Wire hardens as you work with it or hammer it. Round wire is the most common, but half-round, square, triangular, and twisted wires make for fun design options. Practice with inexpensive craft or copper wire before you try more expensive silver or gold varieties.

**CALIPERS**

When you need to measure beads, put the bead in the calipers’ jaws, then read the number on the ruler above. Calipers can also help you visualize the size of beads before you order them online.
A step-by-step reference to key jewelry-making techniques used in bead-stringing projects

**Tools**

- **BENTNOSE PLIERS**
  - Use bentnose pliers to grasp components, bend wire, and open and close jump rings or loops.
  - Their bent jaws allow you to reach into tight places without blocking your vision.

- **CHAINNOSE PLIERS**
  - Use chainnose pliers to grasp components, reach into tight places, bend wire, make flattened crimps, fold crimp ends, and open and close jump rings or loops.

- **CRIMPING PLIERS**
  - Use crimping pliers to secure crimp beads to flexible beading wire. The jaws have two notches. The notch closest to the handle forms a U shape and the notch closest to the tip forms an O shape. You'll use both notches to make a folded crimp.

- **DIAGONAL WIRE CUTTERS**
  - Use diagonal wire cutters to cut flexible beading wire and metal wire. Do not use them on memory wire, which will damage the blades. The outside (back) of the blades meets squarely, yielding a flat-cut surface. Cut wire with the back of the blades so the ends will be flat.

- **MEMORY WIRE CUTTERS**
  - Use memory wire cutters to cut memory wire, which is made of steel and will damage other cutters. You may also use heavy-duty wire cutters to cut memory wire.

- **ROUNDNOSE PLIERS**
  - Use roundnose pliers to form loops, hold small components, and open and close jump rings or loops. The jaws are round and tapered.

- **SPLIT-RING PLIERS**
  - Split ring pliers are helpful (though not necessary) to open split rings. The hooked tip holds the ring open as you attach components.

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- **SURGEON'S KNOT**
  - 15. Cross the right end over the left and go through the loop. Go through again. Cross the left end over the right and go through. Pull the ends to tighten the knot.

- **OVERHAND KNOT**
  - 16. Make a loop, pass the working end through it, and pull tight.

- **PLAIN LOOP**
  - 17. Take the wire ½ in. (1 cm) above the top bead. Make a right angle bend close to the head.
  - 18. Grab the wire's tip with roundnose pliers. Roll the wire to form a half circle.
  - 19. Reposition the pliers in the loop, and rotate to complete and center the circle.
  - 20. The finished loop.

- **WRAPPED LOOP**
  - 21. Make sure there is at least ½ in. (3.2 cm) of wire above the head. With the tip of your chainnose pliers, grasp the wire directly above the bead. Bend the wire (above the pliers) into a right angle.
  - 22. Position the jaws of your roundnose pliers vertically in the bend.
  - 23. Bring the wire over the pliers' top jaw.
  - 24. Reposition the pliers' lower jaw snugly in the curved wire. Wrap the wire down and around the bottom of the pliers. This is the first half of a wrapped loop.
  - 25. Grasp the loop with chainnose pliers.
  - 26. Wrap the wire tail around the wire stem, covering the stem between the loop and the top bead. Trim the excess wrapping wire, and press the end close to the stem with chainnose or crimping pliers.

- **SET OF WRAPS ABOVE A TOP-DRILLED BEAD**
  - 27. Center a top-drilled bead on a 3 in. (7.6 cm) piece of wire. Bend each end upward, crossing the wires into an X.
  - 28. Using chainnose pliers, make a small bend in each wire to form a right angle.
  - 29. Wrap the horizontal wire around the vertical wire as in a wrapped loop. Trim the excess wrapping wire.

- **SPLIT RING**
  - 30. Wedge the hook of a pair of split ring pliers between two coils of a split ring.

- **CUTTING FLEXIBLE BEADING WIRE**
  - 1. Decide how long you want your necklace to be. Add 6 in. (15 cm) and cut a piece of beading wire to that length. (For a bracelet, add 5 in./13 cm.)

- **FLATTENED CRIMP**
  - 2. Hold the crimp bead with the tip of your chainnose pliers. Squeeze the pliers firmly to flatten the crimp bead. Tag the clasp to make sure the crimp has a solid grip on the wire. If the wire slides, remove the crimp bead and repeat with a new crimp bead.
  - 3. The flattened crimp.

- **FOLDED CRIMP END**
  - 8. Glue one end of the cord, and place it in a crimp end. Use chainnose pliers to fold one side of the crimp end over the cord.
  - 9. Repeat with the second side of the crimp end and squeeze gently.

- **OPENING A JUMP RING OR LOOP**
  - 10. Hold the jump ring or loop with chainnose and roundnose pliers or two pairs of chainnose pliers.
  - 11. To open the jump ring or loop, bring one pair of pliers toward you.
  - 12. The open jump ring. Reverse the steps to close.

- **ATTACHING A CLASP**
  - 13. For a two-piece clasp: on each end, string spacer, crimp bead, spacer, Wire Guardian (optional), half of a clasp. Go back through the beads just strung and tighten the wire. Crimp the crimp bead and trim the excess wire.
  - 14. Or, follow step 13 to attach a lobster claw clasp on one end and a soldered jump ring or chain extender on the other.

**Basic skills**

A step-by-step reference to key jewelry-making techniques used in bead-stringing projects
Memory wire
by Julia Gerlach

A favorite go-to stringing material, memory wire has unique properties. Learn to wrangle it for quick-to-make, long-lasting jewelry.

Memory wire is a hardened steel wire (usually 21–22 gauge) that goes through a chemical process that causes it to maintain its shape. It “remembers” its form and will snap back into position after being stretched. Caution — it may lose some of its springiness over time if it is coiled and uncoiled a lot or if you are rough with it (purposefully stretch and bend it), so you may not be able to count on your memory wire jewelry lasting forever. But if you treat it well and you follow these suggestions, you’ll find memory wire to be a useful and enjoyable material to include in your beading repertoire.

THE RIGHT TOOLS
Because memory wire is made of hardened steel, you must be careful not to use your jewelry-grade wire cutters on it — the memory wire will nick them! Instead, use memory wire cutters, also sometimes called tempered steel wire cutters, or use heavy duty wire cutters.

Another option for cutting memory wire is to not use cutters at all. What?!?!? That’s right — because it is so hard, memory wire is also very brittle, which means it can be broken instead of cut. Simply grasp the wire with two pairs of chainnose pliers, and bend it back and forth a few times until it breaks.

FINISHING TOUCHES
The most common way to finish memory wire is to make a simple loop at each end. Don’t bother trying to make a fancy wrapped loop — the wire is too stiff to do that. Simply grip the very end of the wire with roundnose pliers, and rotate them to make a loop.

Another option for finishing is to glue a memory wire end cap, which looks like a small half-drilled metal bead, onto the tip of the wire. Use two-part epoxy or cyanoacrylate adhesive for the most secure connection.

Stringing beads onto memory wire can get tedious, especially if you pick each one up in your fingers before stringing them. Instead, try using the end of the wire like a needle to pick up beads: Hold the wire close to the end to maintain control, and push it through the beads.

If possible, use beads that are prestrung on cotton or monofilament. Pinch the end of the strand between the forefinger and middle finger of your nondominant hand, and guide the rest of the strand over your thumb. Slide the memory wire through the beads. When you’ve strung about 2 in. (5 cm), pull the cotton cord or monofilament out of the beads, leaving them on the memory wire. If using Czech seed beads, some size 11s will work with this method, though others won’t (usually those with coatings have holes that are too small). Anything size 8s or larger should work, as should most Czech pressed glass, like fire-polished beads.

APPROXIMATE SIZES (COIL DIAMETER)
The different manufacturers of memory wire list sizes in a variety of ways, some giving actual coil diameters, others using descriptors like small or large. Here are some common sizes:

<table>
<thead>
<tr>
<th>Size</th>
<th>Ring Wire</th>
<th>Bracelet Wire</th>
<th>Oval Bracelet Wire</th>
<th>Necklace Wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>3/8 in.</td>
<td>2 in.</td>
<td>3 1/2 x 2.3 in.</td>
<td>5 1/2 in.</td>
</tr>
<tr>
<td>Medium</td>
<td>7/8 in.</td>
<td>2 1/4 in.</td>
<td>4 1/2 in.</td>
<td>6 in.</td>
</tr>
<tr>
<td>Large</td>
<td>2 in.</td>
<td>2 1/2 in.</td>
<td>5 in.</td>
<td>7 in.</td>
</tr>
</tbody>
</table>

PACKAGING
Memory wire is often sold as a certain number of loops, i.e. “12 loops,” though you will sometimes find it sold by the ounce. Approximate loops/coins per ounce:

<table>
<thead>
<tr>
<th>Size</th>
<th>Ring</th>
<th>Bracelet</th>
<th>Oval Bracelet</th>
<th>Necklace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>195–200</td>
<td>70–75</td>
<td>35–38</td>
<td></td>
</tr>
</tbody>
</table>
Flexible beading wire

We've put together these guidelines to help you choose the right flexible beading wire, crimp beads, and crimping pliers for your project. Some details will vary based on your particular beads and project. For instance, you may want to use a thinner wire than suggested if you will be making multistrand designs with more than one wire passing through the crimp beads.

### Beading Wire

<table>
<thead>
<tr>
<th>Beading Wire Size</th>
<th>Internal Strands</th>
<th>Crimp Bead Size</th>
<th>Crimping Pliers</th>
<th>Bead Types and Sizes</th>
<th>Best Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>.007–.010 in.</td>
<td>7</td>
<td>1 mm</td>
<td>Micro crimping pliers</td>
<td>Light (smaller than 4 mm) gemstones, freshwater pearls, and seed beads</td>
<td>Lightweight stringing, bead weaving, crocheting, knitting, embellishments</td>
</tr>
<tr>
<td>.012–.014 in.</td>
<td>7, 21, 49</td>
<td>1 mm</td>
<td>Standard crimping pliers</td>
<td>Light to medium, small-hole beads such as crystals, gemstones, freshwater pearls, and seed beads</td>
<td></td>
</tr>
<tr>
<td>.019 in.</td>
<td>7, 21, 49</td>
<td>2 mm</td>
<td>Standard crimping pliers</td>
<td>Medium (4 mm – 8 mm, plus some lightweight 10 mm beads) gemstones, crystals, and larger seed beads</td>
<td></td>
</tr>
<tr>
<td>.024 in.</td>
<td>7, 21, 49</td>
<td>3 mm</td>
<td>Mighty crimping pliers</td>
<td>Large (10 mm and up) / heavy gemstones with uneven drill holes</td>
<td></td>
</tr>
</tbody>
</table>

**Thread but can't be attached to a regular beading needle.** A special needle, called a Speeder Beader, is available to guide flexible beading wire through thread but can't be attached to a regular beading needle.

### Sizing bracelets

Whether you make them for yourself, friends & family, or a customer, making bracelets to the right size can be a challenge. These five tips will help you create bracelets that fit every time.

1. **The law of averages**
   - Industry guidelines for average bracelet sizes can be a good starting point if you want to make bracelets to fit a range of people of unknown sizes. If you’re going to sell bracelets at a craft fair or art show, for instance, consider making each style in at least two sizes.

   **WOMAN’S SIZE**
   - BRACELET LENGTH
     - Adult small/petite 7 in. (18 cm)
     - Adult medium 7½–8 in. (19.1–20 cm)
     - Adult large 8½ in. (21.6 cm)
     - Adult plus 9 in. (23 cm)

2. **Customize it**
   - For the best results, customize your creations based on actual wrist measurement and preferred fit. Here's how:
     1. Measure your actual wrist size. Wrap a flexible tape measure around your wrist just above your wrist bone where you would normally wear a bracelet. Alternatively, wrap a piece of string around your wrist, and then measure the length of the string on a ruler.
     2. Select your preferred fit. Most people have a preference on how a bracelet drapes on the wrist. Follow these guidelines to determine total bracelet length based on the preferred fit.

   **STYLES**
   - Snug fit
   - Comfort fit
   - Loose fit

3. **Bead size matters**
   - Fact: Large beads take up more space on the wrist than small beads. This means bulky beads essentially shrink the inside circumference of a bracelet. If you are following the industry sizing guidelines when sticking thicker bracelets, they will probably fit tighter than anticipated. To compensate, for larger beads or thicknesses, measure the diameter of the largest bead or the thickest section of the design, and multiply this number by three.

   - For example, a 3/8 in. (1 cm) diameter bead will require that you add an additional 1 1/8 in. (2.9 cm) to the final bracelet length.

4. **No measuring needed**
   - Instead of designing bracelets flat on your work surface, use an EZ Bracelet Sizer to easily check the inner dimensions of your design. The EZ Bracelet Sizer is a vinyl cone that includes measurements of actual wrist sizes ranging from 4–12 in. (10–30 cm) in circumference (for ankles). Remember that you may need to add extra length to create the preferred fit. Learn more at gossamerwingsdesigns.com.

5. **FREE VIDEO: Weave a bracelet with flexible beading wire**

   While flexible beading wire is perfect for stringing, you can also use it to dip your toe into bead weaving. Click here to watch a video showing how to make this easy woven bracelet by Stephanie White.
Choker and collar length, 13–16 in. (33–41 cm)

REAL FIT FOR REAL BODIES

Industry guidelines can be very useful when making jewelry. They prevent us from creating pieces that are 10 in. (25 cm) long — generally too long for a bracelet and too short for a necklace. They also help us understand how a designer intended a piece to fit. But guidelines alone are not enough. We need to take into consideration the different sizes and shapes of people and their preferences for how things fit. Designing jewelry for yourself and others must involve some custom tailoring. Remember, haute couture is custom fitted and impeccably tailored. Why not do the same for your one-of-a-kind creations? Here are six tips for customizing your designs to fit the intended wearer.

1. Purchase a yard of heavy cotton cord, available from any craft or fabric store. Tape the cord to a yardstick to make measuring easier. Wrap the cord around your neck once, twice, or even three times. The cord will drape, whereas beading wire or thread will not.

2. You can also use the industry guidelines to help determine the perfect length. For example, a 17–19 in. (43–48 cm) necklace is perfect for necklaces featuring large focals. You can mark the length on the cord with a marker and use a tape measure to record that measurement. Why use cotton cord? The cord will drape, whereas beading wire or thread will not.

3. If the wearer likes the fit of a favorite necklace, measure it and use that measurement as a guideline when making her custom piece.

4. When making projects from Bead&Button magazine, use the measurement listed in the materials list as a guideline. If you are making an 18-in. (46 cm) necklace, you know the designer intended it to sit just below the collarbone. Follow tip 1, 2, or 3 to determine if you need to change the length.

5. If you are using a focal bead, where will it fall? For example, a 17–19 in. (43–48 cm) length is perfect for necklaces featuring large focals. You can mark the length on the cord with a marker and use a tape measure to record that measurement. Why use cotton cord? The cord will drape, whereas beading wire or thread will not.

6. Ignore suggestions that small people should only wear dainty jewelry or large people should wear larger pieces. If you love it and feel comfortable in it, wear it. Use industry standards only as a guideline for where a necklace should fall. These lengths position the focal safely above or below the bustline.

Custom-tailored necklaces possess a tangible worth to the wearer. A woman appreciates it when jewelry is made for her body. Plus, you feel great knowing that you’ve created jewelry that’s both attractive and will be worn comfortably. How haute couture is that?