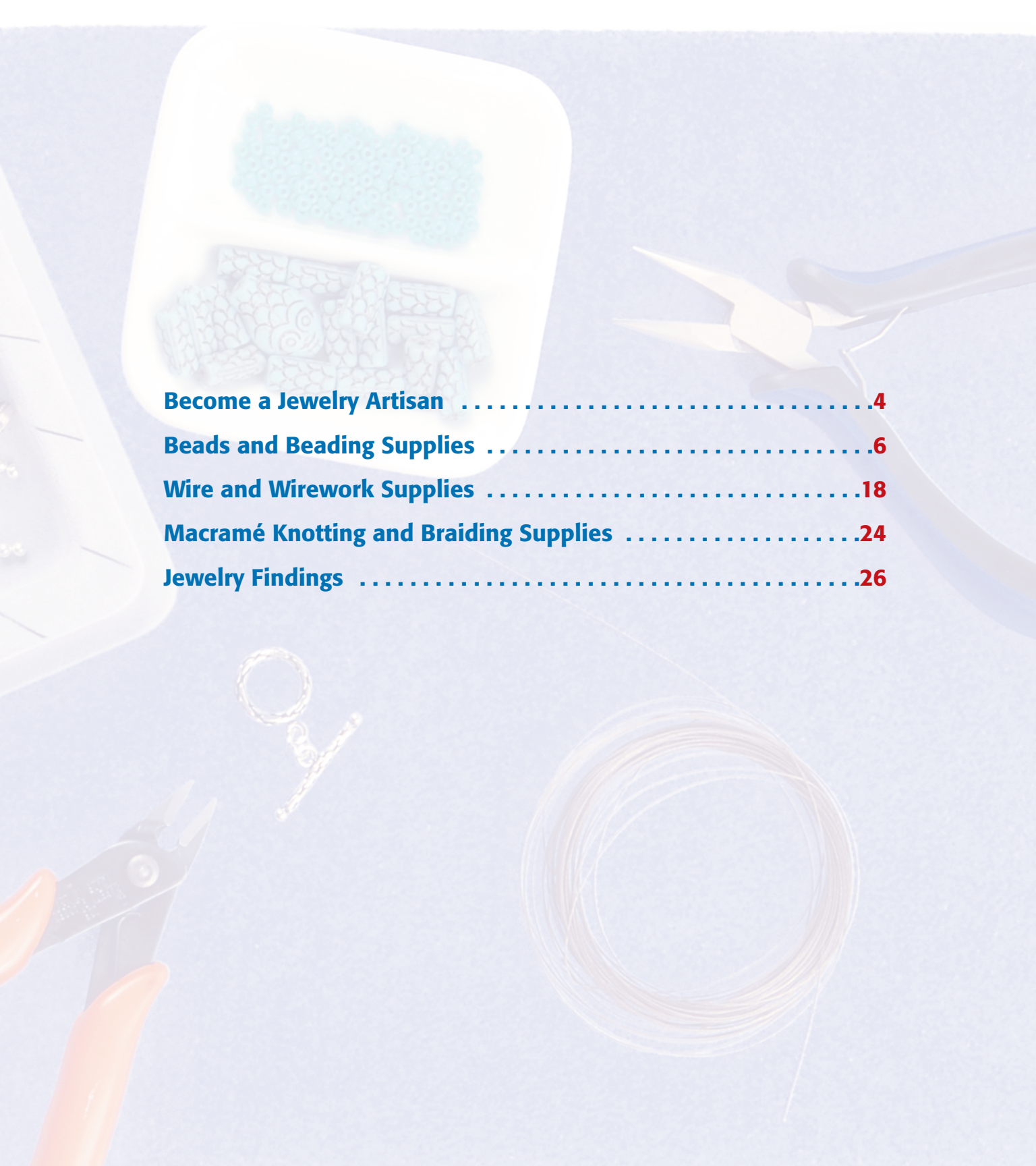
chapter 1

Introduction to Jewelry Making and Beading

Are you interested in learning how to make jewelry and work with beads, but unsure where to begin? Let this book guide you through the basic skills and techniques you will need to create the most popular styles of jewelry and beadwork. In this chapter, you will learn about the essential tools, equipment, and supplies used for common tasks. Then you can set up your work area and start exploring this creative hobby.



Become a Jewelry Artisan

Jewelry making and beading are very personal and rewarding crafts. With some basic supplies and a little creativity, you can adorn yourself, and the people in your life, with beautiful objects that communicate your inner feelings and your sense of style.

People have been crafting jewelry and beading for thousands of years. Throughout human history, jewelry and beads have symbolized social status, wealth, and spiritual beliefs. Some cultures even attribute magical powers to their jewelry and gemstones. Today, many people still view jewelry as more than mere decoration; they use it to symbolize love and commitment, religion, politics, life experiences, the birth of children, and important memories. Our choice of jewelry conveys important information about us. It helps us—and those around us—to understand who we are.

When you begin making your own jewelry and beaded artwork, you will use many of the same techniques that ancient crafters used thousands of years ago. Your designs will be special because you made them by hand to your own specifications. You will experience the satisfaction of making jewelry you really love (and that fits you), while avoiding the cheaply made, mass-produced jewelry that you see at so many retail stores.

You can also save money by making your own jewelry. Using the basic techniques covered in this book, you can affordably make jewelry that is very similar to expensive designer jewelry from department stores and boutiques. You will also find that gift-giving becomes far less challenging for the jewelry and beadwork lovers on your gift lists.

One of the most rewarding aspects of jewelry making and beading is that your creations can serve any purpose and match any style that you choose. If you love fashion, you can be your own personal fashion jewelry designer. If you're interested in a particular culture, religion, spiritual path, or time in history, your designs can reflect what's important to you. You can even reassemble your old jewelry into new, updated designs.

As you work through this book, allow yourself plenty of time to experiment and play with new techniques. You may master some skills quickly, but others will take practice. Be patient, and keep in mind that you will be able to complete projects faster over time. Enjoy each new accomplishment, and use your newfound talents to bring more creativity and enrichment into your life.

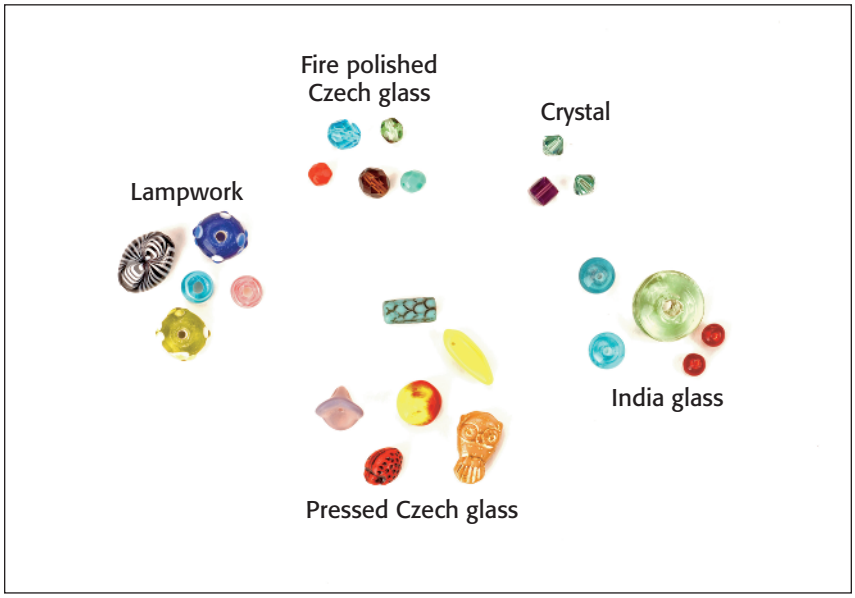
Beads and Beading Supplies

Beads are the most popular and widely available jewelry-making components. You can find them at craft stores, bead shops, and on the Internet. (See pages 282–283 for a list of bead resources.) Typically, beads are categorized by material, shape, and size.

Common Bead Materials

GLASS BEADS

Glass beads are available in just about any color and style you can imagine. Their quality is often linked to where and how they are made. For example, many glass beads currently made in China and India are less consistent in size and color than glass beads from Europe; however, they typically are less expensive than European beads.



Some of the most popular glass beads from Europe are made in the Czech Republic. These are often referred to as *Czech glass beads*. Some Czech glass beads are *pressed*, or manufactured in molds. You can find them in a lot of fun shapes like flowers, animals, and even fruit. Other Czech glass beads are *fire polished*. Fire polishing is a special process that gives glass extra shine and sparkle. But fire-polished glass beads are not quite as eye-catching as *crystal beads*. Crystal is glass that contains a small amount of lead. The lead makes the glass softer so that it can be cut into more precise shapes. It also changes the way light reflects within the glass, creating extreme shine. The highest-quality crystal beads are made in Austria and Czech Republic, but less expensive variations are also manufactured in China.

Seed beads are tiny glass beads that are commonly used to create woven beaded fabric. You can also use them to make thin, beaded strands. As with larger beads, seed beads vary in quality depending on how and where they were made. You will learn more about bead weaving and selecting quality seed beads in Chapter 5.

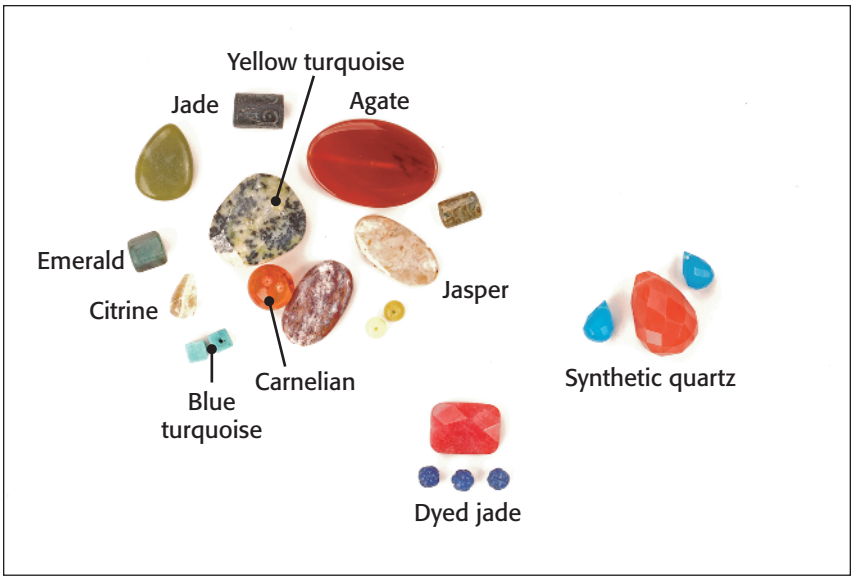
Although most glass beads are made by machine, some are individually handmade. *Lampwork beads* are an especially popular style of handmade glass beads. They are crafted by manually applying molten glass to metal rods.

Other beads are created by a combination of mechanical and handmade methods. For example, some manufactured glass beads are *hand faceted*, or cut to have multiple flat surfaces, to mimic the look of gemstone beads.

GEMSTONE BEADS

Most gemstone beads are made from *semiprecious* natural stone. Semiprecious stone is more abundant, and less costly, than the *precious* gemstones used in fine jewelry settings. Agate, jade, quartz, jasper, and turquoise are examples of common semiprecious stones. You can also find semiprecious varieties of more expensive stones like ruby, amethyst, emerald, and citrine.

Gemstone beads are usually shaped by hand. Like glass beads, their quality and cost often depend on where they were made. Some of the most affordable gemstone beads are made in India. They are colorful and beautiful, but their shapes and sizes are less consistent than more expensive gemstone beads from China.



Many gemstone beads are *treated*, which means that they may be dyed, oiled, heated, irradiated, or injected with waxes. Treatments improve the look of lower-quality stones, but treated stones remain less valuable than higher-quality, untreated stones. Treated gemstone is not the same as *synthetic* gemstone. Synthetic gemstone beads are not really made from stone; they are another material made to look like stone. Many synthetic stones—especially synthetic quartzes—are made from glass. They can be very beautiful, but they are typically considered inferior to natural stone.

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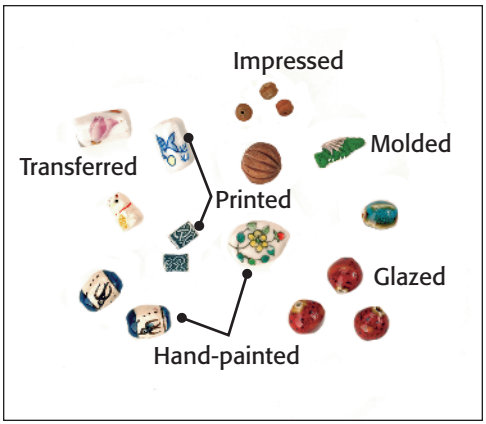
CERAMIC BEADS

Ceramic beads are made from earthen clay. They can have a simple, natural look or be highly decorative. Colorful ceramic beads are usually painted, printed, or glazed. With *painted* ceramic beads, the paint is brushed on or the beads are dipped into paint. A coat of lacquer may be applied to seal the paint in place. *Printed* ceramic beads are either stamped with paint or have designs *transferred* onto them from other surfaces. Transferred designs are usually applied using heat, but otherwise they are similar to stamps. Printed and transferred designs are less time-consuming to create, and more regular in appearance, than hand-painted designs. *Glazed* ceramic beads are coated with colored or clear glass.

Some ceramic beads are shaped by hand, and others are molded, carved, or *impressed*. Impressed beads have indented or three-dimensional designs made by pressing a mold or modeling tool onto the clay before it hardens.



METAL BEADS

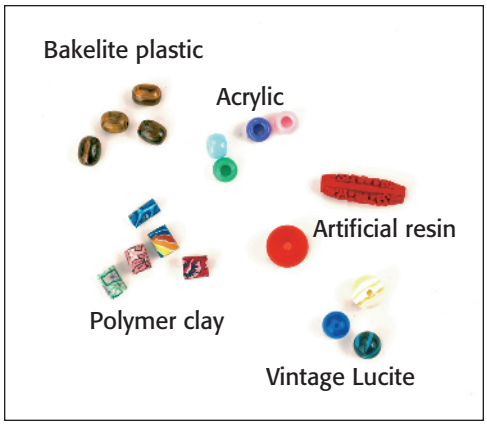
Metal beads can be made of precious metal or base metal. *Precious metal* is less abundant and more expensive than base metal. The most common precious metals used in handmade jewelry are sterling silver and gold. *Base metal* refers to any of the more common, less expensive metals like copper, brass, nickel, tin, or aluminum—or to any mixture, or *alloy*, of more than one type of base metal. Base metal beads are often finished or plated. *Finishing* is a technique used to change the color of the surface of metal to make it look more like another metal. It can also be used to darken metal, making it look *oxidized*, or antiqued. *Plated* metal is coated with a very thin layer of another metal. Common examples are silver-plate and gold-plate. Plated beads have a nice look, but their plating can wear off relatively easily.

Most solid metal beads are *cast*, or molded. Hollow metal beads are often made of two stamped sheets of metal joined together at the seam. Handmade metal beads are usually made from precious metals, and they are significantly more expensive than cast beads because of the time and effort required to make them. Most handmade metal beads are fabricated using traditional, advanced jewelry-making techniques. Others are hand-formed from metal clay. (For more information on metal fabrication and metal clay, see Chapter 12.)

PLASTIC BEADS

While some plastic beads are inexpensive and of low quality, others are pricey and highly collectible. Beads made from hard vintage plastics like *Bakelite* and *celluloid* are especially sought after. *Artificial resin* is a soft plastic used to make bright, colorful beads, or to replicate natural materials like amber and cinnabar. (In fact, modern beads called "cinnabar" are usually made from red or black resin, because natural cinnabar is highly toxic.) Some basic plastic, or *acrylic*, beads are coated to look like metal beads. Others look like carved bone, tortoise shell, or pearls.

Many handmade plastic beads are made from *polymer clay*, which is a heavy plastic that can be shaped easily and layered to create interesting artistic effects. (For more information on polymer clay, see Chapter 12.)



ORGANIC BEADS

Historians believe that the first beads ever made were crafted from small seeds or tiny pieces of shell. These materials are *organic* because they come from living things. Pearl is an all-time favorite organic bead material. Pearls are formed by little water creatures called *mollusks*. When an irritant, like a piece of sand, gets trapped in the mollusk's tissue, it deposits layers of a substance called *nacre* around the irritant. Multiple layers of nacre create a pearl. Most pearls are *cultured*, meaning that irritants were manually placed into mollusks' tissues to create them. *Natural* pearls are pearls that form without any human intervention. They are very rare and expensive, and so the pearls you use in jewelry will likely be cultured. Pearl beads are often dyed, but they can also have a natural white, cream, or tan color. There are many different qualities, or *grades*, of pearl beads. Even the lower-grade, inexpensive varieties can look stunning in jewelry.

Other organic bead materials include wood, seeds, shell, amber, bone, and horn. *Amber* is a very lightweight material made from the natural resin of ancient trees. Bone and horn beads typically derive from the byproducts of large livestock like cows and sheep. Beads made from these materials are usually handcrafted, and many are hand carved.

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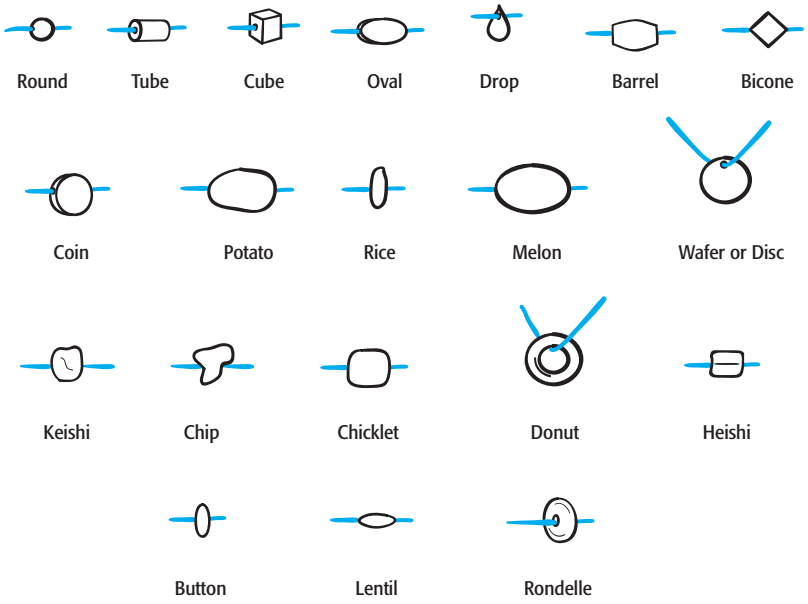
Bead Shapes

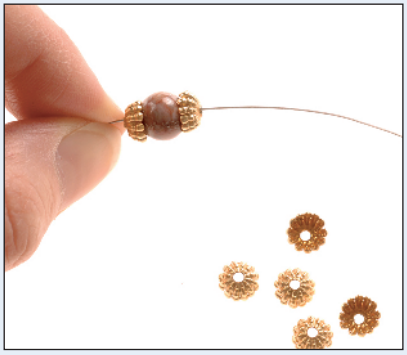
Beads are available in many shapes. Here are the most common shapes you will encounter when bead shopping.



FAQ

What are bead caps?

Bead caps are small, cup-shaped components that adorn the ends of beads. You can string on bead caps before and after a bead to give it a more ornate appearance. Bead caps are usually made of metal, and they can be plain or elaborate in their styling. For best results, select bead caps that fit snugly so that they almost appear to be part of the beads that they contain.



Bead Sizes

With the exception of tiny seed beads, bead sizes are typically described in millimeters. (To learn about the unique sizing classifications for seed beads, see page 95 in Chapter 5.)

The size of a round bead is its *diameter*, which is the same measurement as either its *length* (the distance between the two openings of the drill hole) or its *width* (the distance between the other two sides of the bead). The sizes of other shapes of beads are often described by both their length and width. Typically, length is the first measurement given, but sometimes width is provided first. (For this reason, it's important to examine the bead in question to understand its width versus length.) Here are some examples of common bead sizes.

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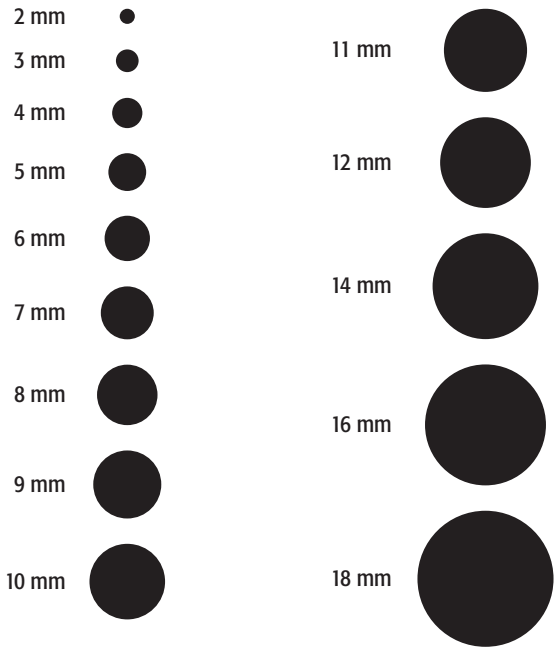
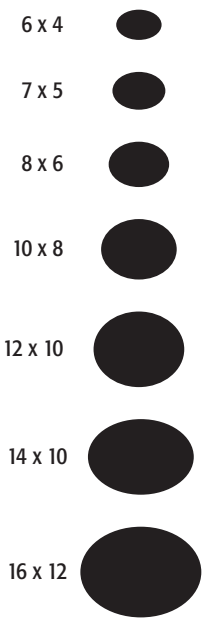




Pendants and Charms

You can use pre-made pendants and charms in just about any type of jewelry you make. They are sold at most bead shops and jewelry supply stores, and you can even take them off of old jewelry and reuse them for new designs.

Pendants are usually larger than charms and serve as focal pieces for necklaces. They can be made from any material that beads are made from. The little devices that hold pendants onto necklaces are called *bails*.

Charms are typically used as accent pieces rather than focal points. You can use a single charm in a design, or a collection of many. Charms usually attach to jewelry with split rings or jump rings (see page 27).

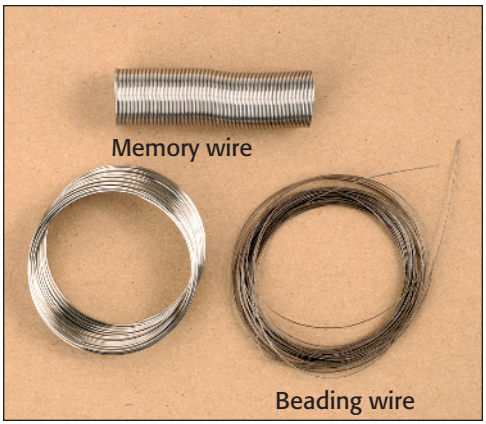
Bead Stringing Materials

You can string beads on many different materials. Here's a brief look at the most common stringing materials used for beading. You will learn more about them in Chapters 3, 4, and 5.

BEADING WIRE AND MEMORY WIRE

Unlike regular metal wire, *beading wire* is soft and flexible. It's made up of many tiny metal strands woven or wound together. Most beading wire is covered with a thin layer of nylon plastic. To learn more about the types and sizes of beading wire, see "Select a Stringing Material" in Chapter 3.

Memory wire is hard, single-strand steel wire designed to hold a circular shape. You can use it to make beaded coil bracelets, necklaces, and rings that don't require clasps.



CORD AND RIBBON

Cord is non-metal material that often consists of smaller strands woven together. Silk, nylon, cotton, and satin are popular types of multiple-strand cord. Leather, suede, and rubber are typical single-strand cords. Stretch cord can have single or multiple strands. Most cord is sized in millimeters or inches according to its diameter, but some manufacturers use their own sizing system using numbers or letters. *Ribbon* for beading is usually made of soft fabric, like organza or satin.

BEADING THREAD

Beading thread is a special synthetic thread designed for beading. It has a very small diameter and can fit through tiny bead holes. Like cord, it is often composed of multiple strands. Beading thread is usually stronger and smoother than thread used for sewing. To learn about beading thread sizes, see "Select Beads, Thread, and Needle" in Chapter 5.

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Beading Tools and Supplies

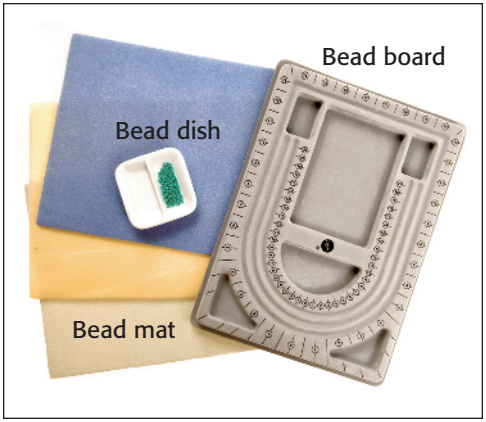
Although beads and stringing material are the basic necessities of any beading project, there are other tools and supplies that can make your beadwork easier and help you create more complicated designs. Here's a look at some items that you may find useful. You will learn more about working with many of them in Chapters 3, 4, and 5.

BEADING MATS, BEADING DISHES, AND BEAD BOARDS

Because many beads are round, they can easily roll away from your work area. You can keep better track of your beads by working on a *beading mat*. A beading mat can be any flat surface that is textured to keep beads from rolling. It can be as simple as a terry cloth hand towel or as fancy as a specially engineered, rubberized mat from a bead shop. Textured foam drawer-liner material also makes a nice bead mat, and you can find it at most drug stores.

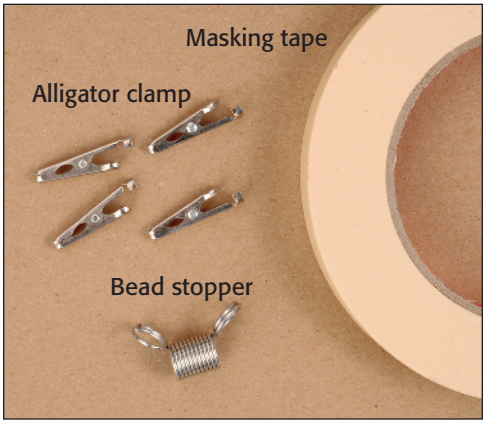
When you work with tiny seed beads, you may find it more helpful to keep them on a ceramic dish or in a shallow, smooth bowl. This makes it easier to pick up the beads using a beading needle.

A *bead board* is a three-dimensional tray with long grooves for holding and arranging beads. Most bead boards are made of plastic with a velvety coating that helps beads stay in place. Bead boards are available in a variety of shapes and sizes, and they usually have measurement marks to help you gauge the lengths of your designs.



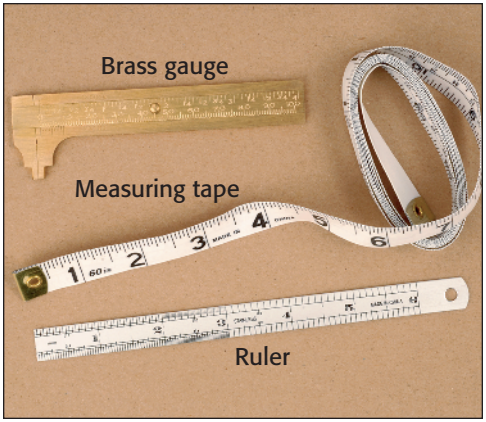
TAPE AND CLAMPS

There may be times when you want to string some beads before you permanently secure the end of your stringing material. You can keep your beads from falling off the string by temporarily securing it with a piece of masking tape or a clamping device. *Alligator clips* are small metal clamps traditionally used for electrical work. They are especially useful for clamping cord. You can also find clamps made specifically for beading called Bead Stoppers at some bead shops and jewelry supply stores.



MEASURING TOOLS

It's a good idea to have a ruler and a measuring tape on hand for measuring the lengths of beaded strands, sizing beads and other components, and helping with jewelry sizing. You can also use a sliding *brass measuring gauge* to determine the dimensions of beads and components. Brass measuring gauges have marks that line up to show you the sizes of items in millimeters and inches. They are relatively inexpensive and provide very accurate measurements.

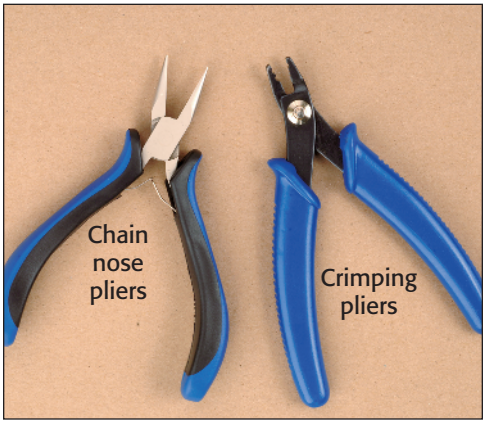


SHARP SCISSORS OR NIPPERS

A good pair of small, sharp scissors will help you cleanly cut and trim soft stringing materials like cord, ribbon, and thread, and even smaller sizes of beading wire. For larger beading wire, or to cut soft materials more quickly, you can use a pair of short-bladed cutters called *nippers*. Try to avoid using your beading scissors or nippers on anything other than bead-stringing material; hard or rough materials can damage or dull them.

PLIERS FOR CRIMPING

You can secure the ends of beading wire with little collapsible beads or tubes called *crimps* (see "Crimp Beads and Crimp Tubes" on page 26). To attach crimps, you need a pair of chain nose pliers or specially designed crimping pliers. *Chain nose pliers* are short needle nose pliers with smooth jaws. Although similar pliers are sold at hardware stores, it's best to purchase them at a bead shop or jewelry making supply store. *Crimping pliers* are usually available where other beading supplies are sold. (To learn more about crimping pliers, see page 50 in Chapter 3.)

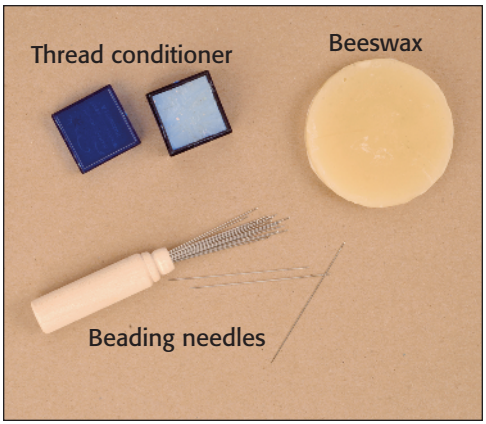


NEEDLES AND THREAD CONDITIONER

Some bead-stringing materials are stiff enough that you don't need a needle to string them with beads. This is true for beading wire and many types of cord. But for very thin or soft cord, or with beading thread, a needle can make bead stringing much easier. There are several types of needles used for stringing beads. The one you select for a given project depends on the stringing material and beads that you use. (For more information on needles, see page 54 in Chapter 3, "Needles Used with Cord" and page 97 in Chapter 5, "Selecting a Needle for Beading Thread".)

Before you string beads onto a strand of beading thread, it's also a good idea to treat the thread with beeswax or thread conditioner. *Beeswax* is sold in blocks at most bead shops. When you rub it along a piece of thread, a layer of wax adheres to the thread to protect it from moisture and to slightly stiffen it, making it easier to work with. However, some beaders avoid beeswax because it can attract dirt and make thread feel sticky.

Thread conditioner is an alternative to beeswax. It is usually sold in small plastic boxes at bead shops and fabric stores. You apply it by gently pressing the thread into the container with your finger and pulling the thread through the conditioner until it is completely coated. Thread conditioner is thought to make thread stronger and to reduce tangling. It is not as sticky as beeswax and it is less likely to attract dirt.



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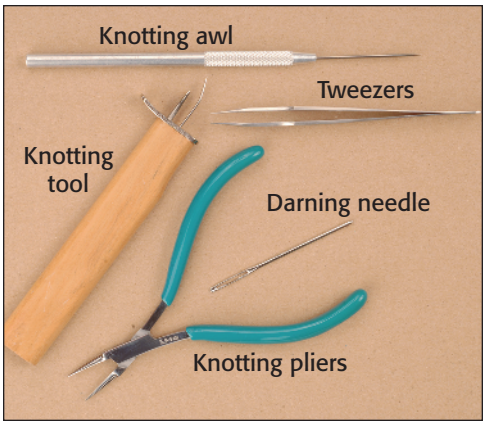
KNOTTING AWLS AND KNOTTING TOOLS

A *knotting awl* helps you position knots against beads. You can find one at most bead shops, or you can use a regular darning needle as a substitute. Narrow tweezers or *knotting pliers* are also useful for sliding tiny knots against beads. Another option is a *specialty knotting tool*, which mechanically maneuvers the stringing material as you make knots. (You will learn how to use an awl and specialty knotting tool in Chapter 4.)



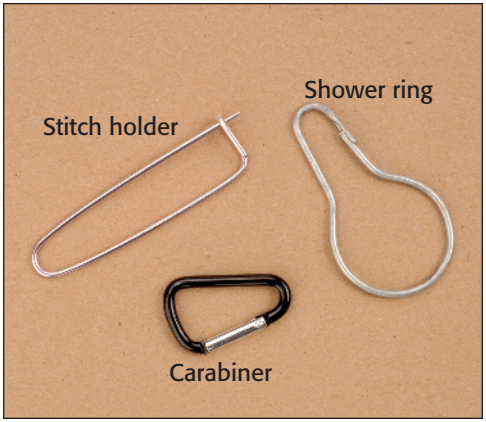
GLUE AND TOOTHPICKS

Glue is often used to help secure knots at the ends of stringing material or to attach components to base findings (see "Jewelry Findings" on page 26). One of the most popular glues for jewelry making is E6000. This thick, clear glue can take time to dry, but it remains flexible and moisture proof when it sets. You can find it at bead shops, jewelry making supply stores, and hardware stores. It's a good idea to keep some toothpicks on hand for applying the glue to small areas, and some paper towels for wiping up glue messes.

Instant bond glue is also used in jewelry making. This is the glue that you typically find in little squeeze bottles at grocery and drug stores. As its name implies, instant bond glue sets very quickly. However, it also becomes brittle and may crack and break. For some applications, especially securing small knots, you can use clear nail polish as an alternative to E6000 or instant bond glue. Whichever glue you choose, always apply it in a well-ventilated area and avoid breathing in fumes.

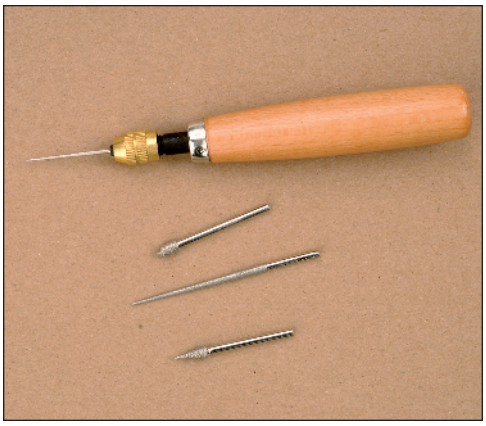
STRAND HOLDERS

Some beading techniques require that you hold or secure multiple strands temporarily while you work. One way to do this is to loop strands through a thin, generic shower curtain ring. (You may see these rings holding strands of beads at bead shops.) They are available from many jewelry making suppliers and are relatively inexpensive. As an alternative, try using a *stitch holder* for knitting. Stitch holders are made of thick metal wire or plastic and look like big safety pins. You can find them at yarn shops and fabric stores. Many other items can be used as strand holders, including small *carabiners* (often sold as key chains), or even simple twisted loops of wire.



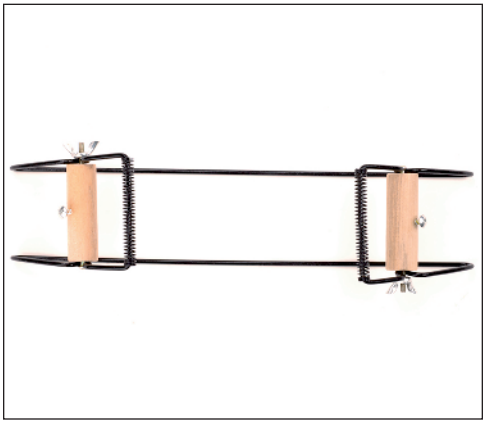
BEAD REAMERS

Bead reamers are hand tools with rough, pointed ends. You use them like sandpaper to *debur*, or smooth out, the holes in some beads before stringing them. Reaming removes jagged edges that might otherwise damage your stringing material. You can also use reamers to slightly enlarge holes on beads made from softer materials. Bead reamers work best on beads made of stone, organic material, plastic, or ceramic. For best results, keep the tip of your bead reamer moist with water while using it.



BEADING LOOM

Beading looms are small, specialized looms designed for weaving long lengths of beaded fabric. They are available in a variety of types and sizes. Most have long, rectangular frames with a bar at each end for securing beading thread. You can find beading looms at most bead shops and from suppliers who specialize in seed beads and bead-weaving supplies.



STORAGE AND ORGANIZATION

Perhaps the greatest challenge when it comes to bead stringing is keeping track of the many beads and components that you collect over time. Some may be left over from previous projects, while others are waiting for the right project to come along. You can store beads in small reusable containers like baby food jars and prescription bottles, or you can purchase modular plastic or acrylic containers made especially for beads. Try to store items in clear containers so you can easily see them. Use a spoon or *bead scoop* to collect beads and place them back into their containers when you're finished with them. You can organize your containers by the type, color, or material of the items they contain.

Wire and Wirework Supplies

Wirework involves shaping metal wire into useful and decorative components and designs. To make wire jewelry, you need the right type of wire and some simple tools to help you manipulate it. This section provides an introduction to wire and common wirework tools. You will learn more about using them in Chapters 6, 7, and 8.

Wire and Tools

JEWELRY WIRE

You can make wire jewelry with any base-metal or precious-metal wire that is soft and easy to bend. (Do not confuse wire used for wirework with beading wire used for bead stringing, which is defined in Chapter 3.) The most popular base metals for wirework are copper, plated copper, nickel, and brass. Precious-metal wire jewelry is often made from sterling silver, fine silver, or gold-filled wire. *Sterling silver* is an alloy that contains at least 92.5% silver and no more than 7.5% base metal (usually copper). *Fine silver* contains at least 99.9% pure silver, and may contain .1% or less base metal. (Fine silver wire is used primarily for advanced projects that require extremely soft wire, like the wire knitting and crochet techniques described on page 274 in Chapter 12.) *Gold-filled wire* has a core of base metal covered with a layer of real gold. Gold-filled wire contains much more gold than *gold-plated* wire, which has a very thin wash of gold on its surface. Wire is available in different sizes, called *gauges*. See page 122 in Chapter 6 for a comparison of wire gauges and recommended uses for them.

FAQ

What is wire *temper*?

Temper refers to the hardness, or stiffness, of wire. Wire with *soft temper* is easier to bend than wire with *hard temper*. Base-metal wire is typically sold with soft temper; but when you buy sterling-silver wire, you often have a selection of tempers to choose from. Sterling-silver wire with *dead-soft* temper is the most versatile for jewelry making because it's the easiest to work with. However, you may want to use *half-hard* sterling wire when you'd like your finished component to be relatively stiff. For example, jump rings or ear wires are more durable when they're made from wire with half-hard temper.

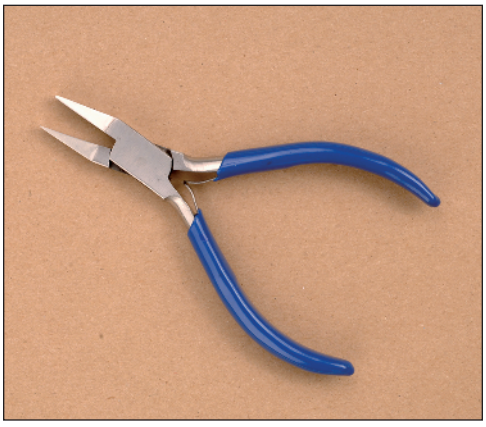
You can also change the temper of dead-soft wire by hammering it. When you tap on wire with a hammer, the molecules align so that the metal becomes stiffer. To learn more about hammering tools and supplies, see pages 20–22.

CHAIN NOSE PLIERS

As you learned on page 15, chain nose pliers are a type of short needle nose pliers. They are the most versatile tool in wire jewelry making. Their jaws are thinner at the tips and wider at the base. Some have straight noses, and others are bent at an angle. It's important to use chain nose pliers that have smooth jaws—not serrated jaws—for wirework. Serrated (or textured) jaws can create undesirable impressions on soft metals. Chain nose pliers are available in a range of sizes, but any standard pair will do when you're just getting started. If you advance to more intricate wirework using tiny-gauge wire, you may want to invest in a pair with especially narrow tips.

FLAT NOSE PLIERS

Flat nose pliers have long rectangular jaws. As with chain nose pliers, it's important to use a pair with smooth jaws. Flat nose pliers are available in different widths and lengths, but any standard beginner's pair works well for most applications.



ROUND NOSE PLIERS

Round nose pliers have jaws that are rounded into solid cylinders. You can find round nose pliers with very long noses at the hardware store, but shorter-nose versions are better for jewelry making. They are available at most bead shops and jewelry making supply stores.

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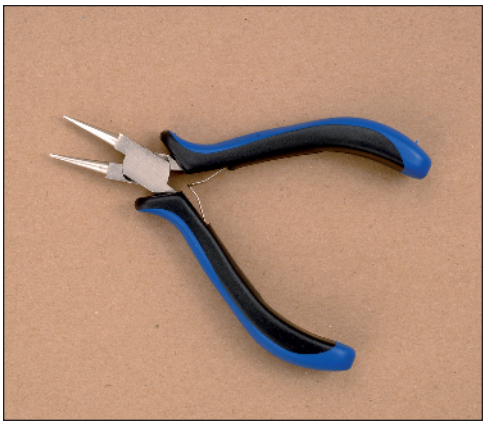
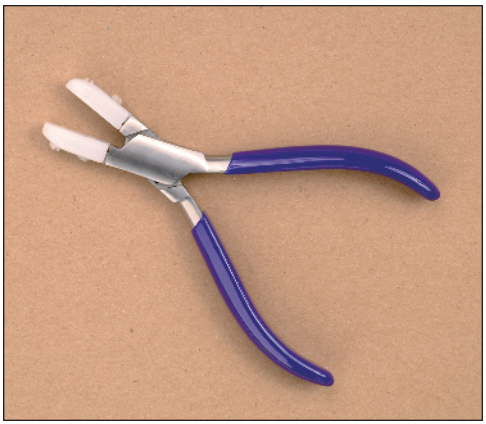


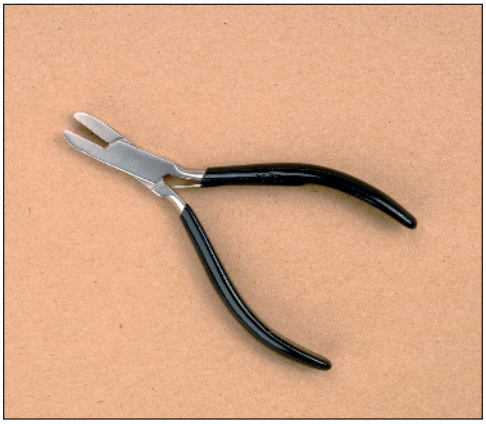
NYLON JAW PLIERS

Nylon jaw pliers are special pliers with plastic jaws. Most models have removable plastic inserts so that you can replace them when they wear out. Because their jaws are softer than metal, nylon jaw pliers do not scratch or mar wire like regular pliers do. In jewelry making, they are most commonly used to straighten wire that has become bent or kinked. For details on using them, see page 135. Nylon jaw pliers are available at most jewelry making supply stores.



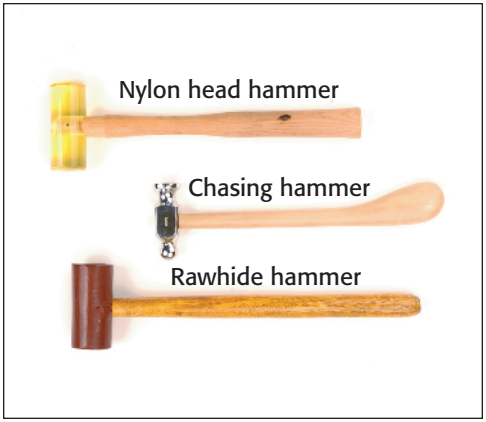
SIDE CUTTERS

Side cutters are special types of wire cutters that are designed to make flat, or *flush*, cuts on wire. They are the best cutters to use on jewelry wire, because you typically want the ends of your wire to be flat, rather than jagged. However, be aware that side cutters only create a flush cut with one side of their jaws; the other side creates a jagged cut. When you use them, make sure that the flat side of the cutters is pointing away from the end of the wire that you're trimming. The best side cutters for wirework are sold at jewelry making supply stores.



HAMMERS

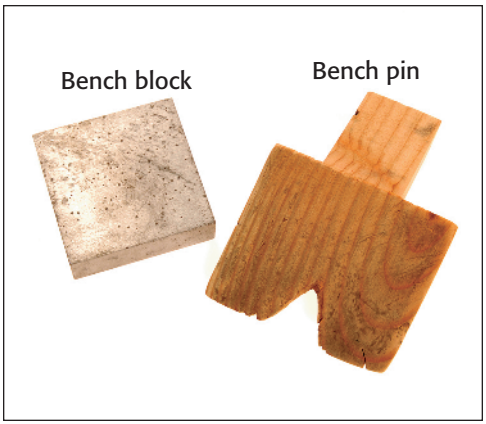
The *chasing hammer* is a popular hammer for wirework. It's actually designed for hammering on other tools (called *chasing tools*) to create marks on sheet metal, but it also works well for flattening and hardening wire. The *face*, or flat surface, of a chasing hammer is smooth and slightly rounded, making it easier to taper wire by hammering it at a slight angle. Two other useful hammers are the *nylon head hammer* and the *rawhide hammer*. Both have soft faces that will not scratch or mar wire. They are useful for straightening and slightly stiffening wire without flattening it. You can find nylon head and rawhide hammers at most hardware stores, but it's a good idea to purchase other hammers from a jewelry making supplier.



BENCH BLOCK AND BENCH PIN

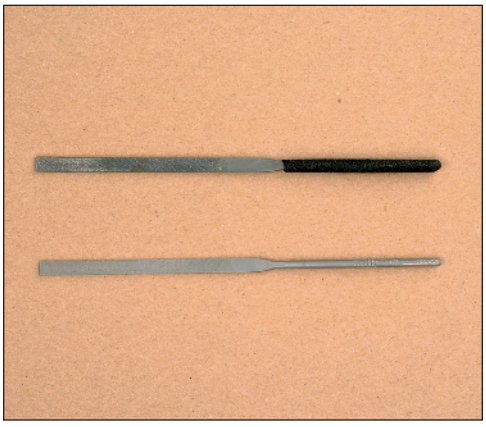
A *bench block* is a smooth piece of hardened steel used as a surface for hammering. You place wire on top of the bench block and hold it in place while you hammer. To keep your bench block from moving while you hammer, try placing it on a rubberized bead mat.

A *bench pin* is a specially-shaped piece of solid wood that jewelers attach to their work benches. They use it to support pieces of metal while they cut or file them. Although bench pins are typically used for advanced metalsmithing, you can also use one when you make jump rings (see page 126 in Chapter 6). Some bench pins are designed to fit into pre-made slots found in most jewelers' benches, but others can be attached to any work surface using a clamp. (If you don't have a bench pin, try using a piece of scrap wood instead.) Bench blocks and bench pins are sold at most jewelry making supply stores.



NEEDLE FILES

Needle files are small metal files that come in a variety of shapes. The most useful shape for wirework is the *flat needle file*. You can use this file to smooth the ends of wire after trimming it. Affordable needle files are stocked by many hardware stores. If you'd like one that lasts longer or is more comfortable to use, you can find a nicer one at a jewelry making supply store.



MANDRELS

Mandrels are used to wrap wire into particular shapes. The most common mandrels are metal rods for coiling wire or forming wire loops. You can purchase mandrels in various sizes and shapes at jewelry making supply stores, but you can also make your own. Household objects like pens, chopsticks, and prescription bottles can serve as mandrels. You can even make mandrels out of wooden dowels or small metal tubes from the hardware store. A *tapered mandrel* is a special type of mandrel that allows you to create wire shapes in a range of sizes. Shapes created near the end of the mandrel are smaller than those created near the base. A common type of tapered mandrel is the *ring mandrel*, which is used for making finger rings in specific sizes.

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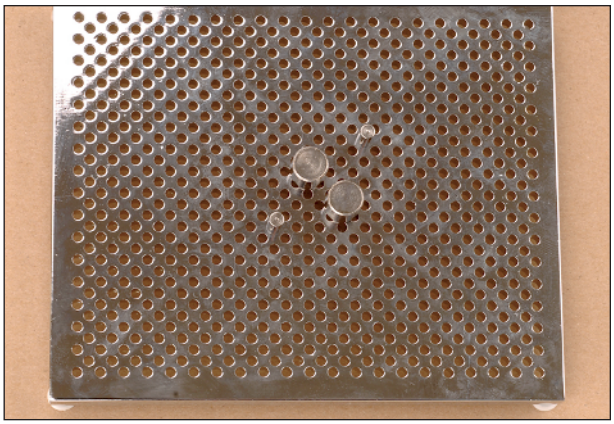
WIRE JIG

A *wire jig* is a device for guiding wire into specific shapes. It consists of a flat surface, or *base*, and a number of *pegs* that fit into the base. Most modern pre-made jigs have moveable pegs that you can arrange in many different configurations. You can create jewelry components in useful shapes by wrapping wire around the pegs. When you make multiples of the same component, each will be the same shape and size. Jigs are available in many sizes and styles. Some are made of plastic, but the more durable models are made of metal. You can find them at some bead shops and most jewelry making supply stores.

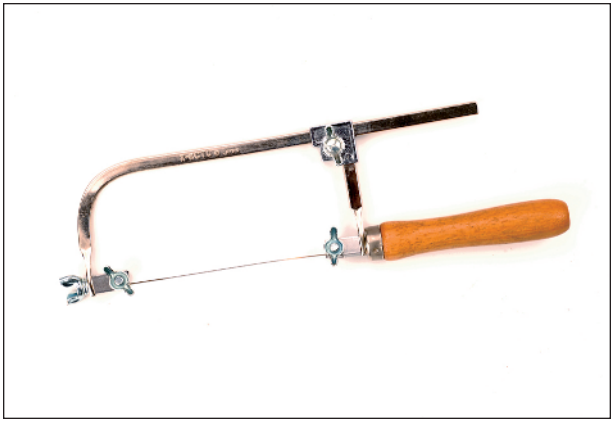


HAND DRILL

A *hand drill* is a manual drill that operates when you turn a crank handle on its side. If you'd ever like to twist two pieces of wire together for a decorative effect, a hand drill can speed up the process. You will learn how to do this on page 158 in Chapter 7. You can find a simple hand drill at most hardware stores.

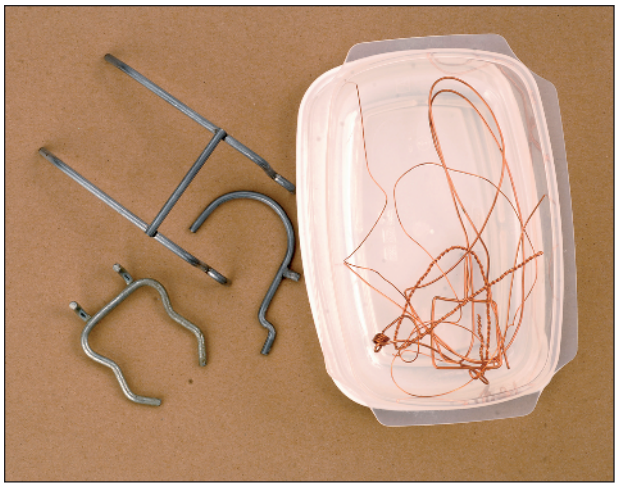
JEWELER'S SAW

A *jeweler's saw* is a special saw designed for intricately cutting sheet metal in advanced jewelry making. You can also use it to speed the process of making multiple wire *jump rings* (see page 128 in Chapter 6 for more information on how to make jump rings). Most hardware stores carry simple, affordable jeweler's saws.



STORAGE AND ORGANIZATION

Wire and wirework tools are usually easier to keep track of than beads, but it's a good idea to develop a system for keeping them organized. When you buy wire, it may be packaged in a coil or on a spool. Be sure to label each package with the material the wire is made of and its gauge. You may also want to keep scrap wire in labeled plastic boxes, organized by type of metal.



Keep your tools in a location where you can easily reach them as you work. You can store pliers and files on special stands available at jewelry making supply stores, or on heavy-duty magnetic strips that you hang on the wall. Smaller mandrels can be kept in a pencil holder or mug.

Hammers are best stored in a drawer or on a wall-mounted *pegboard*. You can find pegboard and pegboard accessories at most hardware stores. Accessories include special hooks for hanging hammers, and generic hooks that you can use to hang a jeweler's saw or coils of wire.

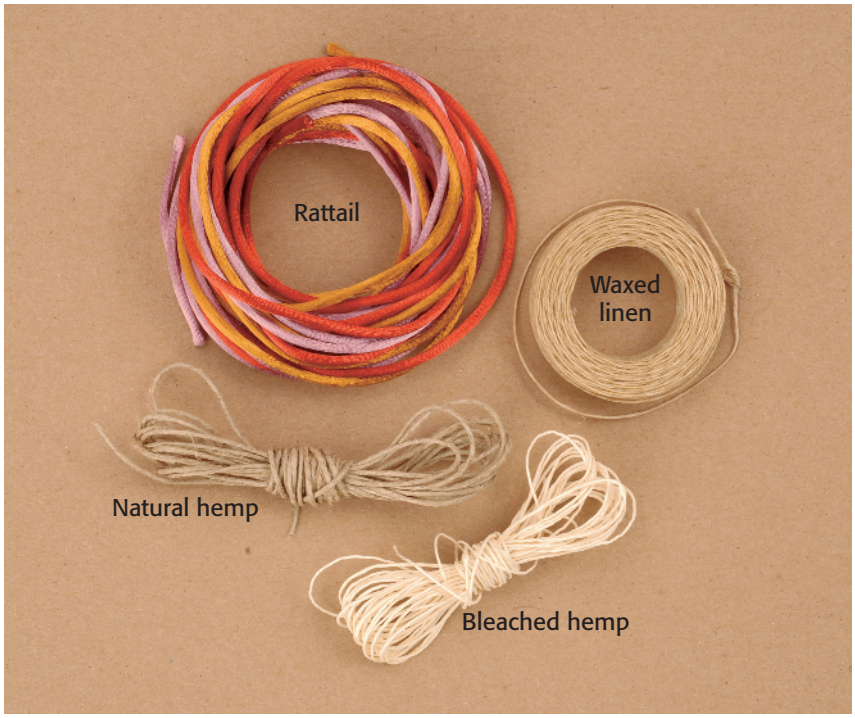
Macramé Knotting and Braiding Supplies

The basic necessities for making macramé and braided jewelry are knotting cord, knotting boards, and T-pins or tape.

KNOTTING CORD

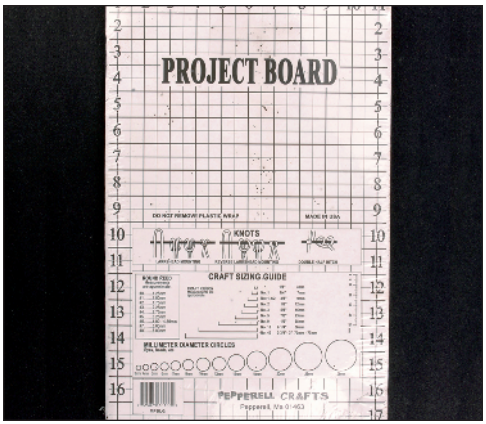
You can make macramé knots and braids with any type of cord that has a large enough diameter to work with (typically 1–2.5mm). One of the easiest cords to knot, and the most popular for jewelry making, is *twine*. Twine is usually made from hemp, which is a plant with very strong fibers. Hemp twine has a natural brownish color, but it's also available bleached (cream colored) and dyed in an array of colors. Some types of hemp twine have a smooth texture, but others are rough and a little scratchy to wear. All hemp cord tends to soften and develop a smoother texture if it's worn for a while, especially when it's allowed to get wet.

Waxed linen, waxed cotton, and braided nylon are also popular cords used for macramé knotting and braiding. Smooth satin cord called *rattail* is a more colorful option. Leather and suede cord are more difficult to work with, but you can give them a try as your skills develop.



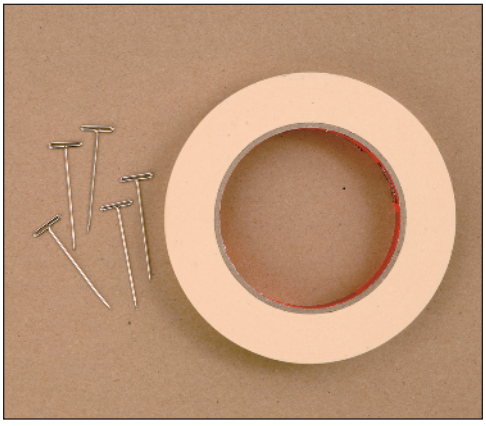
KNOTTING BOARD

You can use a *knotting board* to secure your cords as you work. As you will learn in Chapter 9, you can buy a pre-made knotting board, make one yourself, or use an office clipboard as a substitute.



T-PINS AND TAPE

T-pins are sturdy, steel stickpins with tops shaped like the letter T. They are used by scientists to dissect things and pin down dead bugs, but they are also useful for securing, or *anchoring*, cords to a knotting board. If you don't have a knotting board, try using masking tape to anchor your cords instead.



CORD DISPENSERS

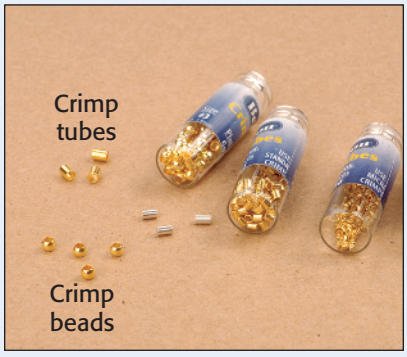
When you buy cord for macramé knotting and braiding, it's often wound into a ball or around a spool. You can keep cord balls and spools clean and untangled by storing them in *cord dispensers*. A cord dispenser can be just about any container with a locking lid and a hole in its top or side for dispensing the cord. You can buy them pre-made from some stores that sell kitchen supplies, or you can make them yourself. Try cutting holes in the lids of storage tins, large jars (like peanut butter or mayonnaise jars), or small plastic storage boxes. You can also use ceramic teapots (pull the cord out through the spout) and upside-down flower pots (dispense the cord through the drain hole).

Jewelry Findings

Jewelry findings are components that serve practical purposes in designs. They attach jewelry parts, keep beads from falling off, and secure jewelry so that it can be worn on the body. Pre-made findings are sold along with beads and other supplies at bead shops and jewelry making supply stores. Most findings are made of metal, but they are also available in other materials. Here are the most common types.

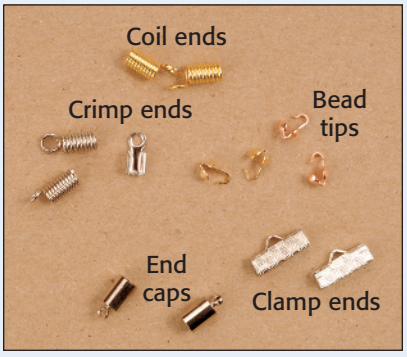
CLASPS

Clasps hold the ends of jewelry together. A clasp can be a simple hook or toggle, or it can be *mechanical*, with moving parts. *Lobster claws* and *spring rings* are examples of mechanical clasps. Most bead shops carry a large selection of clasps in various colors, finishes, and materials.



CRIMP BEADS AND CRIMP TUBES

Crimp beads and crimp tubes are used to secure the ends of bead-stringing wire. *Crimp beads* are rounded and look like tiny metal beads. *Crimp tubes* are tiny metal tubes. You attach crimps to beading wire by squeezing them with chain nose pliers or crimping pliers. To learn more about using crimping beads and tubes, see Chapter 3.

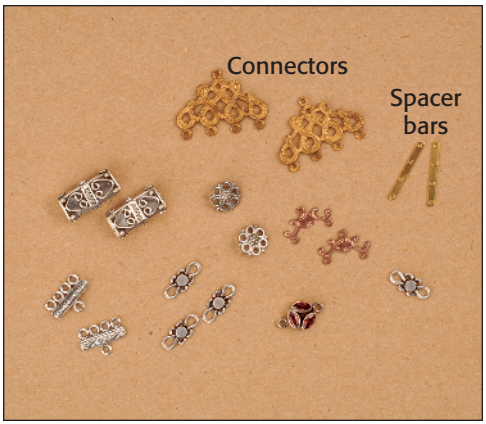


END PIECES

End pieces are metal components designed to secure the ends of various types of stringing material. They often include loops or rings for adding a clasp. Some attach to jewelry with glue, and others are folded-over or clamped down with chain nose pliers. End caps, coil ends, bead tips, clamp ends, and crimp ends are common styles of end pieces. To learn more about using them, see Chapter 3.

CONNECTORS AND SPACER BARS

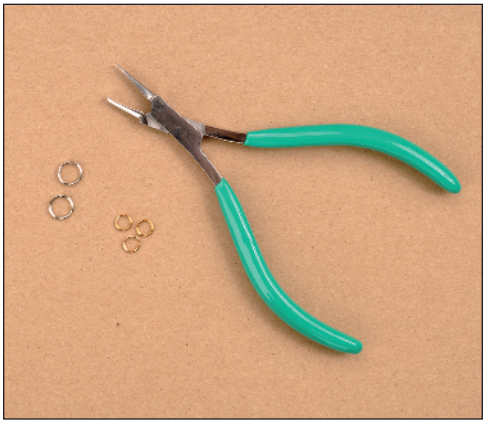
A *connector* is a component with two or more rings or holes that can be used to connect strands in a design. Connectors can be functional or purely decorative. *Spacer bars* (also called *separator bars*) have a series of holes or rings that you can string over multiple strands to hold them together side-by-side.



JUMP RINGS AND SPLIT RINGS

Jump rings are small wire rings used to connect jewelry parts. Most jump rings are *open*, which means that they are not soldered closed. You can open and close them using chain nose pliers. (You can also purchase *closed* jump rings, which are soldered and do not open.) *Split rings* are coiled wire rings that work like round key rings. You attach them by sliding components between their coils. Split rings are more secure than open jump rings because they cannot accidentally be pulled open; however, they also have a bulkier appearance than jump rings. If you decide to use split rings regularly, consider purchasing a pair of *split ring pliers* to help you attach them more easily.

Jump rings and split rings are usually sized by the gauge of wire they're made from and their outside diameter, called *OD*, or their inside diameter, called *ID*. (For example, an 18-gauge, 6mm OD jump ring is one that is made from 18-gauge wire and has an outside diameter of 6mm.) To learn more about jump rings and how to make your own, see Chapter 6.



HEAD PINS AND EYE PINS

Head pins and eye pins are short lengths of wire used to create bead drops. *Head pins* typically have flat heads like nails, but some have metal balls, decorative shapes, or even set stones at the end. When you string a bead onto a head pin, the pin's head keeps the bead from falling off. You can then use round nose pliers to create a loop at the other end of the bead and attach the loop to another jewelry component. (See Chapter 6.) *Eye pins* have a small loop at one end instead of a solid head. You can attach charms or other bead drops to the loop for a more dramatic look.

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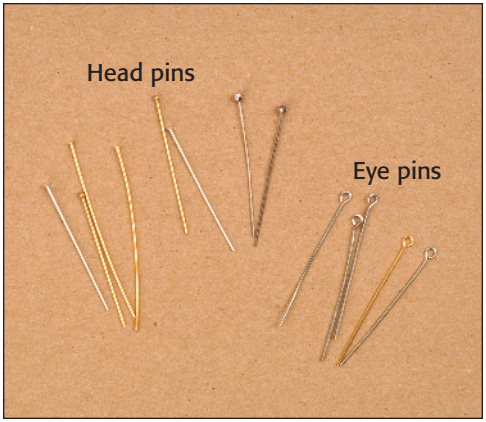


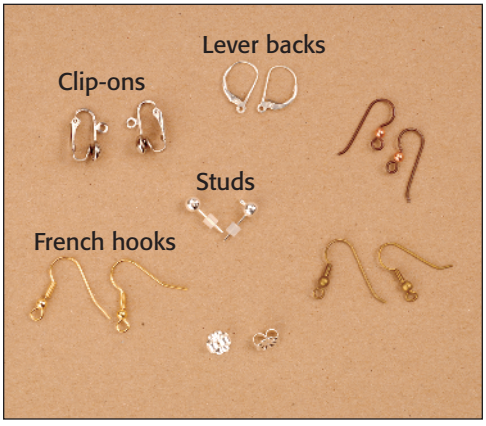
Jewelry Findings *(continued)*

BAILS

Bails are the devices that hold pendants onto necklaces. Some pendants have bails already attached. For others, you will need to purchase bails separately or make them yourself. Bails can be as simple as large jump rings or as elaborate and decorative as the pendants they hold.

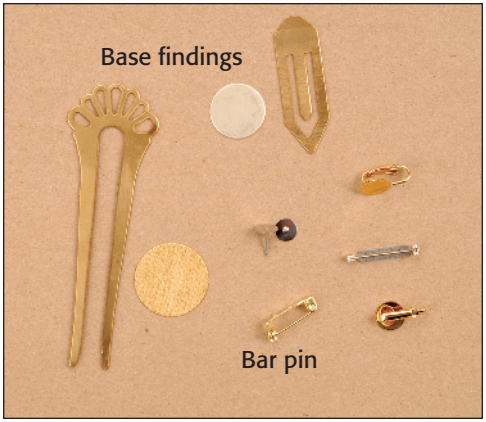
EARRING FINDINGS

Earring findings are components that allow earrings to be inserted through, or clamped onto, the earlobe. Just like clasps, they can be simple (like hooks) or mechanical (with moving parts). One of the most common and simple earring findings for pierced ears is the *French hook*. The most popular mechanical earring findings are called *lever backs*. You can also find *earring studs* with loops for attaching decorative components, as well as various styles of findings for non-pierced ears, including *clip-ons* and *screw backs.*



BAR PINS AND BASE FINDINGS

Bar pins are mechanical findings that you can glue onto other components to create pins and brooches. They are available in a range of sizes. Some come with attached bails so that you can make brooches that may also be worn as pendants. *Base findings* are bare pieces of metal or plain, pre-made pieces of jewelry that you can decorate by gluing, stitching, or wire-wrapping. They include sheet-metal discs, cuff bracelet bases, and pendant bases.



STORAGE AND ORGANIZATION

Over time you may collect a large number and variety of jewelry findings which, like beads and wirework supplies, need to be stored and organized. You can store most findings in the same small containers that you use to store beads. You can also keep them in a fishing tackle box or a divided storage bin from the hardware store. Be sure to label each container or compartment with the material the finding is made of, and any other useful information you'd like to remember about it. You can organize your findings by material, type, or style. Experiment to see which method works best, based on the kind of jewelry you most enjoy making.

TIP

Making Your Work Area Safe and Comfortable

Introductory jewelry making and beading are not high-risk activities, but it's a good idea to take some basic measures for safety and comfort. A first-aid kit will come in handy if you prick your finger with a beading needle, get scratched by a wire, or slice your finger while cutting jump rings. Make sure your work area has adequate ventilation (especially when you use glue), and keep the safety devices suggested in Chapter 6 (like eye and ear protection for wirework) within reach. Make sure your work area is well-lit, and use a magnifier to reduce eye strain. Sit in a comfortable chair and support your arms while you work. Finally, don't forget to consider the safety of children and pets. Jewelry components can be choking hazards, and some even contain small amounts of toxic lead that can be absorbed through the mouth. Pets are also especially susceptible to internal damage if they swallow cord, thread, or string. To avoid these dangers, keep your work area tidy and your supplies safely stored.