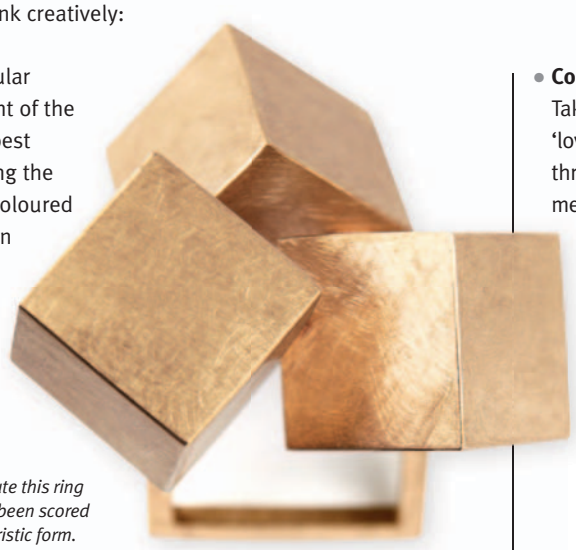
Developing design ideas

It can be a challenge to know where to start with designing your own jewellery. Often the temptation is to copy a design that appeals to you. To design your own original pieces takes time and research, but it's worth the effort.

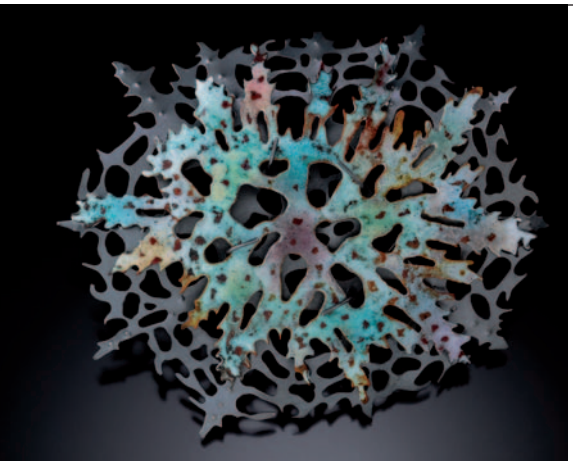
285 Find your design approach

You do not have to be limited to one approach for realizing your design dreams. Here are productive ways to think creatively:

- **Using a process** Use a particular technique as the main element of the design and show it off to its best advantage – for instance, using the rolling mill to inlay different-coloured metals could become the main feature of a design.



Cubed ring
The 18-karat gold cubes that constitute this ring by Peter de Wit are hollow and have been scored and bent to give them their characteristic form.



'Metaphor for Death'
Part of Anne Havel's 'Haeckel Ocean Series', this piece is inspired by the cellular structure of sea creatures as they decompose. It is made from torch-fired vitreous enamel on copper.

- **Using an object or image as a starting point** Start off by looking at something specific, such as an Art Deco piece or shells, then work on the shapes, colours and forms that the object or image suggests to you and translate them into design ideas.

- **Conveying an idea or emotion** Take an idea such as 'freedom' or 'love' and try to convey that idea through imagery or more abstract means to create a jewellery design.

Freedom pendant
This piece was inspired by the idea of escape and uses the words 'sail away with me' engraved into the pendant to reinforce the message.

FIX IT

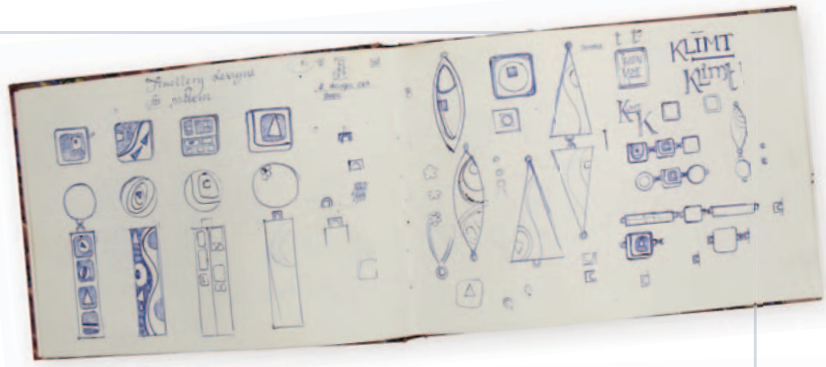
286 MAKING IT BETTER

Look at a piece of jewellery you own, perhaps even one that you have made and analyse its design elements. See if there is anything you would change – size or choice of colours or stones, perhaps – and draw the changes you would like to make to it.

TRY IT

287 KEEPING A SKETCHBOOK

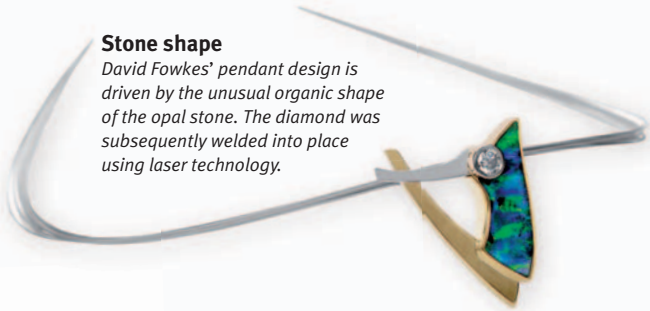
Sketchbooks are great for recording ideas. Some are destined never to be completed, but it's useful to look back and possibly rework old ideas. Use it to keep cuttings that might stimulate ideas for a piece of jewellery. Also keep test pieces of ideas, such as textures. When you are making a piece of jewellery, it's a useful idea to keep a record in your sketchbook of solders used, as well as costs and measurements. If you want to make another similar piece, this takes away much of the guesswork.



288 Design considerations checklist

This checklist highlights the key considerations you need to bear in mind during the design process. It makes sense to have a clear idea of how you want the finished piece to be, even if you change small details of the design along the way.

- **Shape** Do you want the piece to be uniform, geometric, symmetrical or asymmetrical? Try to ensure that the scale of elements being combined is visually pleasing.
- **Form** Do you want a piece to be seen from all angles? It can be good to make the back of a piece as interesting as the front.
- **Finishes** What kind of finishing or patterning do you want, if any? This will greatly alter the finished result and its visual appeal. Consider a matte finish, enamelling and so on.
- **Colour** Do you want the piece to be monochrome, to have natural colouration, or be intensely coloured through the use of stones, enamelling or resin?
- **Wearability** Will the piece be practical and comfortable to wear?
- **Materials** What material(s) can you use to make the piece strong, wearable and visually pleasing?
- **Budget and time** How much money and how long you have to make your piece will affect your decisions for all of the above points.
- **Skills** It's good to challenge yourself, but be realistic about the techniques you have learned and the tools and materials you have available.



Stone shape
David Fowkes' pendant design is driven by the unusual organic shape of the opal stone. The diamond was subsequently welded into place using laser technology.

Contrasting colours
This ebony and coral pendant by Aaron Barr uses sharp graphic contrasts to get attention. The wood is hand cut with a scroll saw and hand textured with jeweller's burrs.

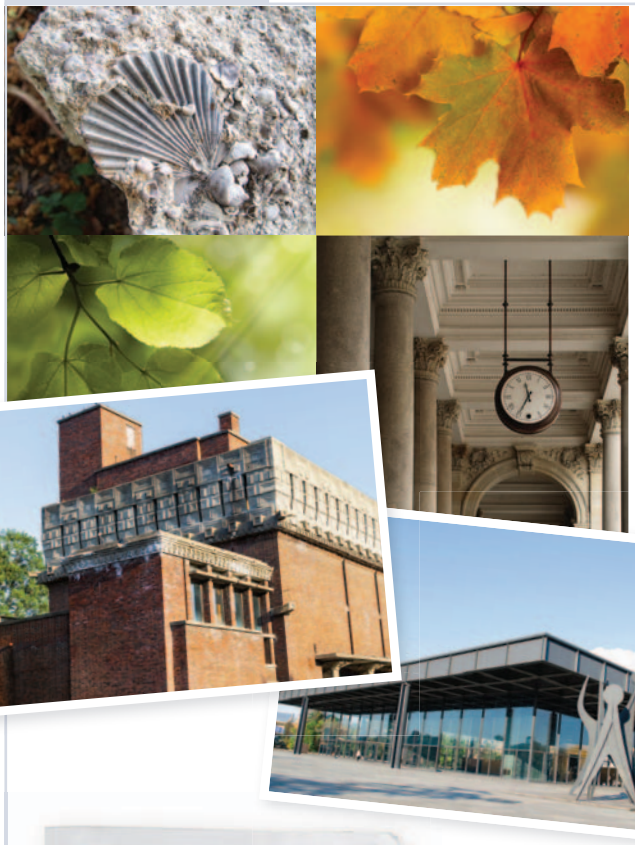
Mixed metals brooch
Mixed metals textured in different ways add interest to this statement brooch.

289 Turning 2-D ideas into 3-D realities

Once you have a rough sketch of the design you want to create, you need to work out the practicalities of how to achieve it – what materials to use and also the scale. Use rulers and graph paper to help you draw your design to scale, remembering to draw side and back views. If you change the dimensions of a design, this can greatly alter it visually. For instance, changing a ring band from 1.5mm (1/16in) to 9.5mm (3/8in) will be a dramatic change. Sometimes a piece can look good when it's drawn large, but can become difficult to make at actual size.

Some jewellery designers like to engineer mock-ups of their designs to road test how they will look when worn. Sketchbooks are an ideal place to record this information and keep paper models together.

TRY IT



290 USING DESIGN STARTING POINTS

Here are two different starting points for a design, though not necessarily for any particular piece of jewellery. Try working up a design for a piece (or even a whole set) of jewellery from one of the following:

- The natural world (shells, fossils, leaves and so on). Choose anything from a large landscape to a microscopic image of DNA as your design platform.
- Architectural details (porticos, windows, columns and so on). A particular style or historical era that appeals to you, such as Roman or Gothic; or the work of a particular architect such as Frank Lloyd Wright or Mies van der Rohe; or a specific building such as the Barcelona Pavilion or the Gherkin in London.

For both of these starting points, collect different images. You can then take an element or something from the image that appeals to you and work it into ideas for pieces of jewellery, thinking about materials, colours, texture and shape. If you can't draw very well, you can use tracing paper, photocopies or the computer to help you convey your idea.

Study three-dimensional forms

Jewellery is three-dimensional, so studying three-dimensional forms such as architectural details will help you understand how form can be expressed.

Student Claire Henderson's design project was based on architectural details; she looked at a window in a building in Portugal, which sparked off the design idea of a silver linked necklace made of cast elements that could be fashioned into a necklace, earrings and bracelet.

The drawings show how the design has developed from the starting point to create a unified set of jewellery.

Designing earrings and studs

The shape and form of earrings on the ear are restricted in terms of size because of their proportion in relation to the size of the ear. Despite size restrictions, earrings come in many different forms, but they all either have to fit through a pierced hole in the ear or be attached as a cuff or clip, worn singly or in multiples.

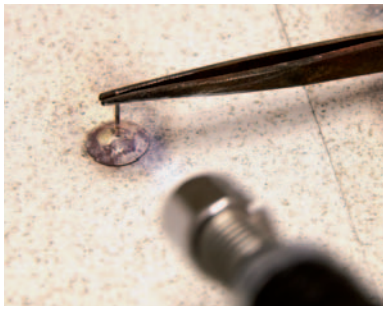
Asymmetric earrings
These earrings by Janis Kerman are a great example of non-identical pieces that are nonetheless in harmony. Made with oxidized silver to contrast with the 18-karat yellow gold.

BEGINNERS START HERE!

291 Making stud earrings

You can buy ready-made ear pins and scrolls to solder onto a stud you have made.

1 Put the stud you have made on the soldering sheet. Flux the back of it and the end of the ear pin (the end that doesn't have the indent in it, which is where the scroll sits when in your ear).



2 Use reverse-action tweezers to hold the ear pin in place on the back of the stud. Cut a small piece of low-grade solder (easy or extra-easy) and flux it, or use a small amount of syringe solder, on the end. Heat the two pieces up evenly, until the solder runs into the seam. Pickle and wash them.

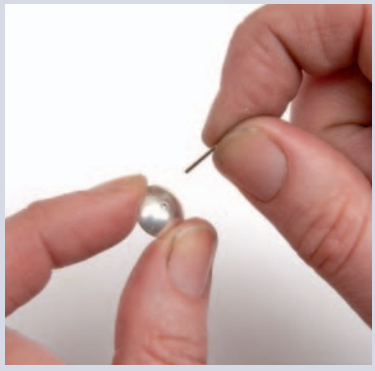
292 Mixing it up

Two earrings in a pair don't have to be identical. It can be interesting to experiment with designing asymmetrical 'pairs'.

- One stud with one drop.
- Related subjects, such as a tortoise and a hare.
- Use the same technique, but have different shapes.
- Use different materials for each earring.

293 EAR PINS COMING UNSOLDERED?

If the stud is thick enough, you can drill a small hole in it the same diameter as the ear pin, where you want the ear pin to be soldered. Buy the longest ear pins you can and use reverse-action tweezers to hold the ear pin in place in the hole. Solder as described above. This method gives a larger contact area for the metal, making the seam stronger.



FIX IT

TRY IT

294 DESIGN EARRINGS FOR SOMEONE YOU KNOW

Because earrings are worn close to the face, they need to suit the individual wearer.

Think about their personality, face shape, hairstyle and colour preferences. If the wearer has short hair, very dangly earrings might be suitable and striking, because they will be very visible. Or perhaps the wearer is more understated and traditional, in which case a simple pair of pearl studs may be more suitable.

295 Choosing the right weight and wire

Most earrings are worn through a piercing in the ear, therefore you have to take into account the weight and wearability of the design. If they are too heavy they can pull the ear lobe and damage the skin. Also, ear wires shouldn't be thicker than 0.8mm (20 gauge), otherwise they may damage the pierced holes.

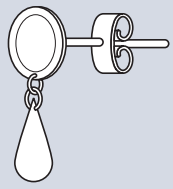
Designer Amy Holton finds sketching out her ideas a vital part of the design process. The evolution of her work from concept to reality is clear here.

296 Earring styles

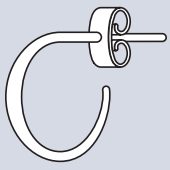
Use these traditional designs as a starting point for your own creations: make your own earring wires to create more personalized pieces. If you want to make large earrings, without the weight, use lightweight materials such as aluminium or make a hollow form, so that they look chunky while being lightweight.

DROP

FIXED DROP

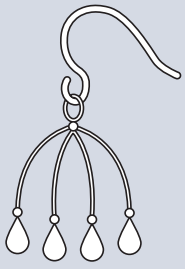


DROP AND STUD



HOOP

DANGLY



CHANDELIER

CLIP-ON

CUFF

STUD

297 Allergies

Some people are allergic to metals – particularly base metals, though sometimes also silver. The most hypoallergenic metals to use for ear wires are niobium, titanium and surgical steel, so it's worth thinking about using these materials if an allergic reaction is a possibility.

Designing rings and bangles

Rings have traditionally been given as love tokens, with the most well-known examples being engagement and wedding rings. A ring can be a very personal and sentimental piece of jewellery. Rings are small and need to be a precise fit, which can make them a challenge to design and make to scale.

Cabochon ring
This design by Emma Farquharson is an interesting take on a simple cabochon bezel setting. The fire opal is set in 18-karat gold on a silver ring shank.

298 Sizing your ring: the low-tech method

This is a simple but effective way of working out the size for your ring.

1 First decide which finger you want to make the ring for. Cut a long strip of paper a similar width to the ring band you are going to make. Wrap the strip of paper tightly around the widest part of that finger; this is usually the knuckle. Make a clear mark where it overlaps; this is the inside diameter of the ring size.

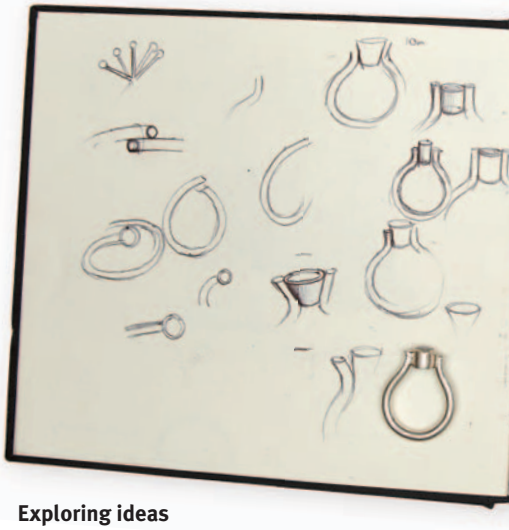
2 Now decide what thickness and profile of metal you are going to make the ring from. Transfer the mark from the paper onto the metal.

3 Mark on the metal the thickness of the metal you are using, plus half again – so if you were using 1.8-mm (14-gauge) metal, your paper strip would be 3mm (⅛in) wide (if you didn't add this amount, the ring would be too small). If you are texturing your ring band you must do this before you make the mark for the length of the band, because texturing stretches the metal.

4 Using a scriber and a steel rule, mark onto the metal at a right angle. Saw the ring band to length, cutting it a tiny bit bigger than required, so that you can file back to the line.

299 Design ideas for rings

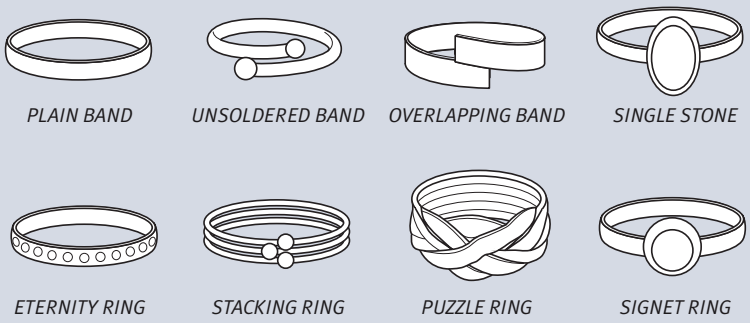
There are many different design ideas you can start with. Whether you begin with a stone or a particular texture, it helps to draw up some initial ideas and then try to work out the final shape and the materials you will need.



Exploring ideas
Here the jeweller auditions different ring design ideas before settling on the design that is shown in the bottom right of the page.

300 Different forms of rings

From plain bands to rings set with stones, rings offer the jeweller lots of design opportunities; always avoid sharp edges on the inside of a ring.



PLAIN BAND *UNSOLDERED BAND* *OVERLAPPING BAND* *SINGLE STONE*

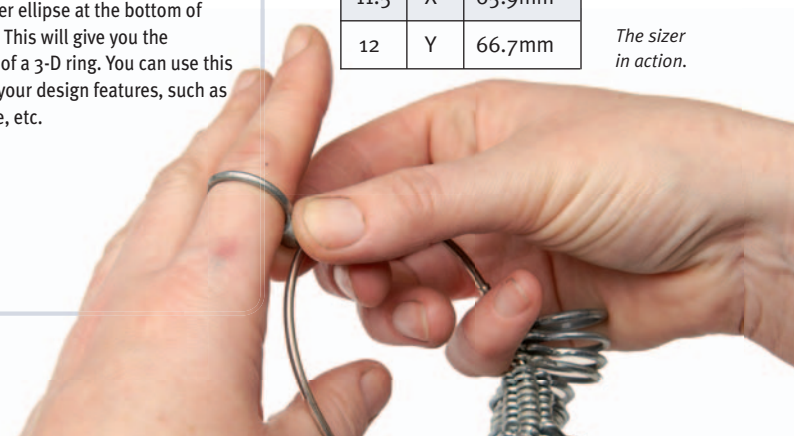
ETERNITY RING *STACKING RING* *PUZZLE RING* *SIGNET RING*

301 Using a ring sizer

You can use a ring sizer to find your correct size. Once you have this measurement, use the chart below to find the linear measurement for it. You will still have to add on a thickness-and-a-half of the metal you are using to make the ring.

Ring size chart

US	UK	mm
3	F	44.5mm
3.5	G	45.2mm
4	H	46mm
4.5	I	47.6mm
5	J	49.2mm
5.5	K	50.8mm
6	L	52.4mm
6.5	M	53.2mm
7	N	54mm
7.5	O	55.6mm
8	P	57mm
8.5	Q	57.8mm
9	R	58.7mm
9.5	S	60.3mm
10	T	61.9mm
10.5	U	63.5mm
11	W	65mm
11.5	X	65.9mm
12	Y	66.7mm



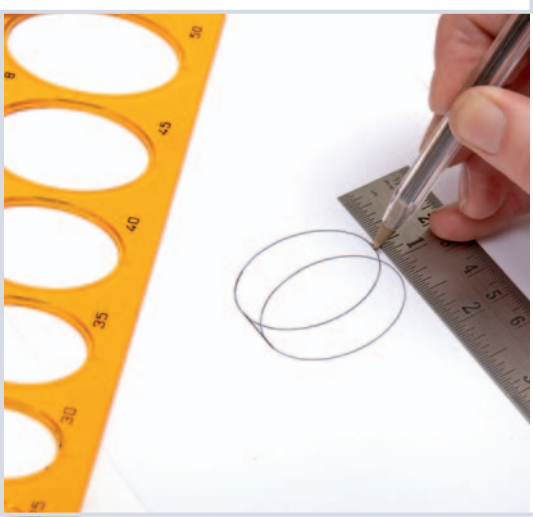
The sizer in action.

TRY IT

302 SIZING THE RING ON THE MANDREL

One way to ensure that you get the ring size correct is to work the metal directly on the mandrel. Take a long piece of your chosen profile and thickness of annealed metal and bend it around the mandrel, tapping with a mallet, to create a loop. Take it off the steel mandrel and put it onto a sizing mandrel. Adjust it to the size you want, then saw through the overlapping loop to create the ring band. The two ends will need to be realigned and soldered together (see page 132).

TRY IT



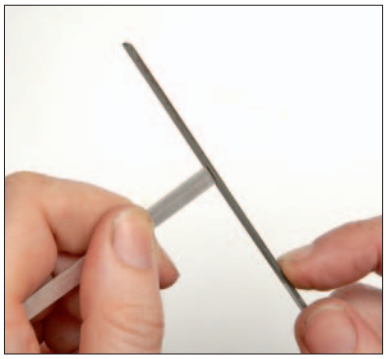
303 USING AN ELLIPSE TEMPLATE

A useful tool when you are drawing your ring design is an oval template. Draw an ellipse, draw a line down from each end of this ellipse the width you want your ring band to be, then draw another ellipse at the bottom of these lines. This will give you the impression of a 3-D ring. You can use this to draw on your design features, such as stones, wire, etc.

BEGINNERS START HERE! 304

Making a foolproof ring band

This sequence shows how to make a simple ring band, which, once mastered, you can start to embellish and experiment with different design ideas.



1 Once you have cut the ring band to the right length for your ring size, you need to join it together. File the two ends of the ring band at right angles. The most important thing is to have very straight edges on the two ends to be joined – the better the fit, the better the solder seam.

2 Use two pairs of flat-nose pliers, one at each end. You can protect the ring from the pliers by wrapping the jaws in masking tape or by using plastic-covered pliers. Bend the two ends together. It doesn't matter what shape the ring is in at this point, but it is important to get the two ends touching each other as much as possible, all the way along the seam. Hold the seam up to the light to see if there are any gaps.

3 Put the ring on the soldering sheet, flux the seam and cut a medium piece of solder. Flux it and place it at the bottom of the seam, making sure that it is in contact with both sides of the seam. Light the torch and heat the whole ring evenly all the way around, ensuring that one side of the seam doesn't get hotter than the other, because the solder will jump onto the hottest side. Once the metal reaches the temperature at which the solder melts, the solder will run up the seam. Pickle and wash the ring.

4 Dry the ring thoroughly and place it on the ring mandrel. Brace the top of the mandrel against the bench and, using a mallet, hammer the ring with a downward motion while slowly turning the mandrel, so hitting all the way around the ring.

5 Look down the end of the mandrel to see if there are any gaps. Once the ring is completely round, remove it from the mandrel. Sometimes the ring can get stuck on the mandrel. If this happens, turn the mandrel upside down, put the end on the workbench and knock the ring off using a mallet.

6 Check that the ring fits the correct finger. Use a flat file to file the seam, to remove any excess solder and make the seam disappear. Also file the two top edges to make the sides line up with each other. You can then use a half-round file to file the inside seam of the ring. Move down through the different grades of sandpaper to remove the scratches made by the file.

7 To polish the inside of the ring, attach a finger felt to the polishing wheel and place the ring over the end of it. Make sure you have a good hold on it while polishing.

FIX IT

305 VISIBLE SEAM?

When you've soldered the seam, if the solder hasn't run very well you may still be able to see it. To fill the seam, run a lower grade of solder into it, flooding it all over the area concerned, then file and sand the excess solder away. This should the make the seam invisible.

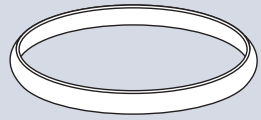
Simple design
A simple ring band made from oval wire with a metal cut daisy motif soldered to the ring shank.

307 A bangle is just a supersized ring

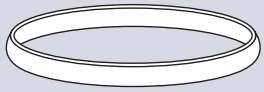
Making a bangle is just like making a large ring – all the principles of designing and making are the same. Instead of using a ring mandrel to shape it, you use a bangle mandrel, which is made of either steel or wood. You can also get oval or square mandrels, to make different-shaped bangles. To solder bangles together, you will need a hand-held butane or propane torch. Use a bangle sizer to get the correct length. Don't forget that, unlike a bracelet, a bangle is fixed in size and shape, so you need to be able to fit it over your hand; allow for this when you are sizing it.

308 Bangle forms

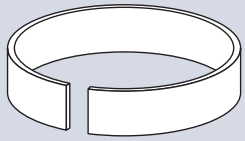
There are a few different styles and shapes of bangle. You will need a bangle mandrel to shape your metal on. An open or cuff bangle is more adjustable to size for most wearers; the hinged bangle is the most technically challenging.



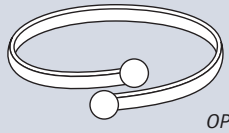
ROUND



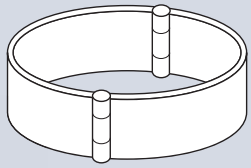
OVAL



CUFF



OPEN



HINGED

TRY IT

306 FITTING A BEZEL TO A RING BAND

If you want to add a stone to a ring design, you generally solder the bezel onto the ring band once it has been made into a ring. This means that you have to shape the bottom of the bezel with a half-round file to fit the curve of the ring band before you can solder it on.

Lily bangle
An open-ended silver bangle, using a lily as a decorative finial.

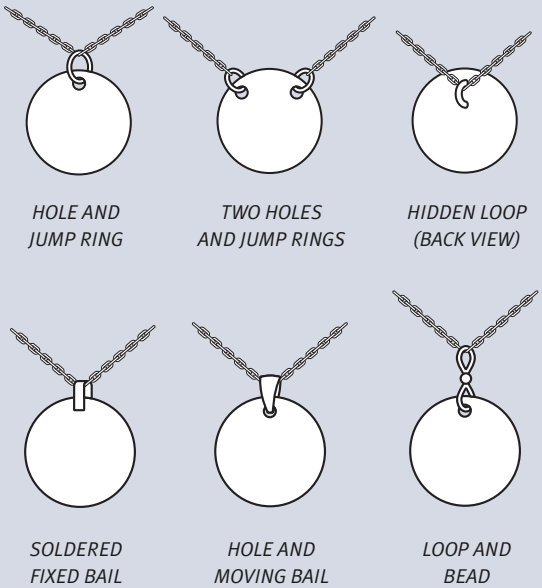
Designing necklaces and bracelets

Necklaces can take the form of repeated units or a collection of elements that culminate in a focal point. Care must be taken that the links provide sufficient flexibility and do not bunch together when worn. In design terms, bracelets share many similarities with necklaces – the exception being bangles, which are generally rigid.

Fused bracelet
Fused silver links have been teamed with flattened ones to create an organic design in this bracelet.

309 How's it hanging?

When designing a pendant for a necklace, the aspect that often gets overlooked is how it is going to attach to the chain. When you are designing a necklace it is worth considering how to integrate the pendant into the overall design. You should also think about the influence of the material and thickness of the necklace you choose to hang the pendant on.



310 Design checklist

Deciding on these features is a useful starting point for your necklace or bracelet design.

Length of chain (pictured opposite)
- Collar 36–43cm (14–17in)
- Choker 41–46cm (16–18in)
- Princess 43–48cm (17–19in)
- Matinee 51–64cm (20–25in)
- Opera 66–91cm (26–36in)
- Rope 114cm (45in) +
- Lariat 114cm (45in) +

Material of chain
- Silver
- Brass
- Copper
- Leather
- Ribbon
- Rubber
- Beads

Choice of clasp or fitting
- Toggle
- Box catch
- S-hook
- Bayonet

Design of fitting for hanging pendants or charms
- Two-hole
- Bail
- Hidden loop
- Closed loop
- Bead

311 Standard necklace lengths

The names of the standard necklace lengths come from a tradition going back many years. Their names reflect the occasions that it was once thought appropriate to wear them. Today, they are a useful guide to the jewellery designer when planning a piece or when designing for a specific person.

Collar *(36–43cm/14–17in) Worn tight and high up on the neck, like a dog collar. Usually multi-strand, not recommended for people who are not comfortable wearing tight items around their neck.*

Choker *(41–46cm/16–18in) Fits very tightly around neck, lower down, just above the collarbone. Usually single-strand, suitable for formal and informal occasions.*

Princess *(43–48cm/17–19in) The most popular length of necklace sits high on the chest and is great with pendants.*

Matinee *(51–64cm/20–25in) Worn down to the breastbone; suitable for casual or business wear.*

Opera *(66–91cm/26–36in) Elegant and sophisticated, but draws attention down to the chest.*

Lariat *(over 114cm/45in) Lariats are unattached at one end and so are worn knotted at the front. They can be knotted just once or multiple times and using different knots for different decorative effects.*

Rope *(over 114cm/45in) Draws attention to torso since it's quite long, but it can be shortened by double- or multi-stranding or by being knotted in front.*

312 Hidden gems

When you are designing a piece of jewellery, it's worth visualizing all the angles it can be seen from. Think beyond the front of the piece; though this is the most visible part when it is being worn, it is not the only place worthy of decoration. Think about the back, the sides and the inside. You could engrave a secret message on the back of a pendant (right top) or go beyond necklaces and bracelets and include extra stones on rings (right bottom). The main tension-set red spinel is visible from the front, but the tiny flush-set stones at the ends of the wire profile are only revealed as you move your hands. These little sparkling secrets bring a unique element to the piece.