

how-to:

Summertime Bling

Necklace



By Joy Funnell

UK

Making chain requires patience because it takes time to make all the individual links. But the sense of satisfaction you will feel once you are holding your finished handmade chain will be wonderful and will make all the effort worthwhile.

This chain is linked together in the greenware stage and fired fully assembled with a decorative clasp worn at the front. It has a sinuous, slinky feel, plus the stones add a nice bit of bling.

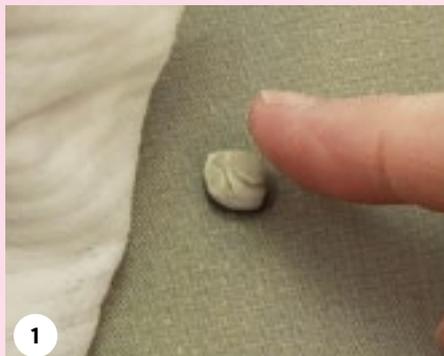
Materials

- 57g Art Clay™ Silver Low Fire 650 (new clay is highly recommended)
- Art Clay™ Silver Low Fire 650 syringe
- Art Clay™ Silver Low Fire 650 paste
- CZs or other gemstones (such as lab-created spinel) that are safe to fire at a minimum of 800°C [1475°F] for 2 hours:*
- 3mm round, faceted stones, 8 each of the following colours: citrine, blue zircon, and pink
- 4mm stones, faceted stones, 1 each of the following colours: citrine, blue zircon, and pink

*The longer and hotter the chain links can be fired, the stronger they will be, so if possible choose stones that can withstand an open-shelf firing schedule of 900°C [1650°F] for 2 hours.

Tools, Supplies and Equipment

- Basic Metal Clay Set-Up (see p. 79)
- Plain paper
- Precision scale (optional)
- Baby wipes
- Water brush (paint brush with built-in water reservoir)
- Pointed paint brush, size 1
- Texture plate for back of clasp
- 3mm stone setting bur
- 4mm stone setting bur
- 1.5mm drill bit
- 4mm diameter drinking straw
- Microfine sponge sanding pad (1200/1500 grit), such as a 3M™ Softback Sanding Sponge in Microfine grit
- Basic LOS Patina Set-Up (see p. 81)

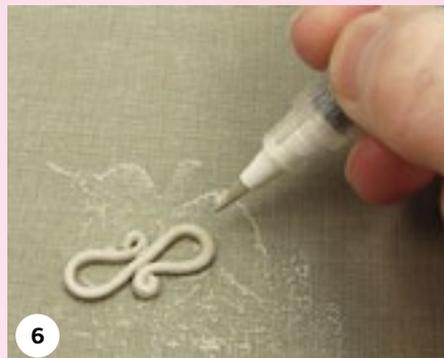


■ **STEP 1: Roll the first snake.** Each link is made by rolling out a long, thin snake of clay and shaping it with wet paint brushes. Cut a piece of paper 75mm [3"] long to act as a guide to help you make all the snakes the same length.

To make each link, remove a small piece of silver clay approximately 1.4g [.05 oz.] and roll it quickly into a smooth ball. (Weighing the clay for each link will help you make all the links as consistent in size as possible.) Flatten the ball slightly and moisten the surface with a wet fingertip [1]. Cover the clay with a fresh baby wipe and allow the water to absorb into the clay for approximately one minute. As soon as the water has been absorbed completely, knead the clay briefly to distribute the moisture evenly throughout it. The clay should be moist but not sticky. Use an acrylic snake roller or a piece of Perspex® sheet to roll the clay into a snake 75mm [3"] long on a smooth, flat, nonporous surface (such as a piece of glass), using the strip of paper you

cut as a length guide [2]. Wet your fingertip and moisten the snake generously, making sure that water clings to every exposed surface along its length, including underneath the edges [3]. This will prevent the snake from cracking while you shape it.

■ **STEP 2: Shape the first link.** Use the water brush to slide the snake carefully onto a piece of non-stick sheet. Then use the water brush and a wet paintbrush to coil a little less than half the snake (approximately 35mm [1.3"]) into a tight spiral coil, making sure there are no gaps anywhere between the coils [4], and leaving a tail approximately 40mm [1.6"] long. Make the spiral coil as tight as you can; however, it is okay if a small space remains in the centre. Gently nudge the tail around to form a loop, tucking the end inside [5]. The total length of the link should be approximately 21mm [13/16"]. You may need to redo this two or three times on the first link to get a shape that pleases you. Press the end



against the loop to close the link securely and set it aside to dry.

STEP 3: Make the remaining links. Make a total of 24 links, using the first link as a guide. Don't worry about minor variations in size or shape, as you will be matching up pairs of links in graduated sizes when you assemble the chain before firing.

STEP 4: Make the S-shaped link for the centre back. Repeat Step 1 to form another snake. Coil a tiny loop on both ends and shape the snake with the wet brushes into an S-shaped link with two large loops [6]. It should be approximately 25mm [1"] long. Note: This two-loop link will be placed at the centre back of the chain, allowing the orientation of the links to reverse direction halfway so that the two halves of the chain will be in mirror image.

STEP 5: Texture and cut out the clasp. Roll out some clay to a thickness of 1.25mm,

using stacks of 5 playing cards or stacked black and blue graduated slats. Apply olive oil or another release agent to the texture you are using for the back of the clasp. (I chose a swirling texture to echo the shape of the links.) Place the slab of clay onto the texture sheet. Place a .75mm (green) plastic rolling spacer or a stack of 3 playing cards on either side, on top of the texture, and roll across them to texture the bottom of the clay. Place the textured clay on a lightly oiled surface and cut out a circle approximately 25mm [1"] in diameter [7]. Set it aside to dry.

STEP 6: Make the spiral and hook components for the clasp. Repeat Step 1 to form another snake. Shape it with the wet brushes into a tight spiral coil. Slice the tail of the snake on the diagonal to taper it before completing the spiral [8] so that the coil forms a neat circle. Smooth the edges of the coil with the water brush and then set it aside to dry. Make two additional, identical coils (three

in total), making sure to coil them all in the same direction. Roll out some clay into a long, narrow strip at a thickness of 1mm, using blue graduated plastic rolling slats or stacks of 4 playing cards, and cut a strip 3mm x 20mm [1/8" x 13/16"]. Form the clay strip around an oiled 4mm diameter straw and curve one tip of the strip slightly upward [9] to make the first hook for the clasp. Allow the hook to dry, propping the straw so that nothing touches the clay as it dries. Make a second, matching hook. Note: Don't worry about the size of the openings. They probably will sag a bit during firing anyway and can be reshaped afterward.

STEP 7: Refine all the components. To refine the dried links, carefully clean and smooth all surfaces with a fresh, moist baby wipe, paying special attention to the backs [10]. Smooth the coiled areas with the water brush [11]. Since you will be rehydrating the clay somewhat during this process, be careful not to let the links get too damp, as they



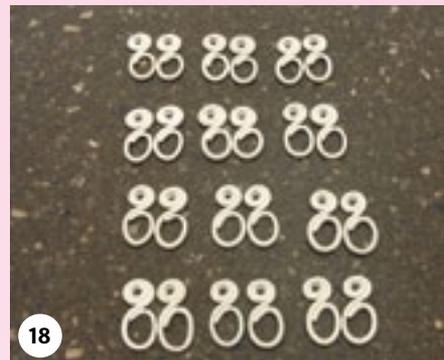
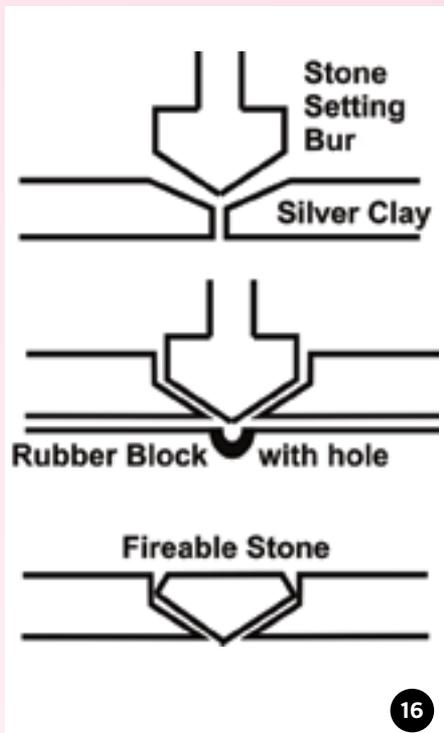
are liable to break or become marred. If a link starts to absorb too much moisture, stop and set it aside while you work on another link, then go back and finish refining it once it is completely dry again. Smooth the edges of the textured disc for the clasp by stroking them alternately with a moist baby wipe and your fingertip. Sand the sides of the two hooks with a microfine (1200/1500 grit) sponge sanding pad, such as a 3M™ Softback Sanding Sponge in Microfine grit, then smooth the edges with a moist baby wipe.

■ **STEP 8: Reinforce the links.** On the back of each link, reinforce the joint where the tail of the snake meets the loop by extruding a short strand of syringe clay on top of it [12]. Press and smooth the syringe clay into the joint with the water brush. Set the reinforced links aside to dry completely. Finish by lightly smoothing all the surfaces, including the reinforced joints, with the microfine (1200/1500 grit) sponge sanding pad.

■ **STEP 9: Assemble the clasp.** Place the clay disc for the clasp face up on your work surface, with the texture facing down. (The textured side will be the back of the clasp.) Arrange the three spiral coils symmetrically on the smooth side of the disc. (The edges of the coils will cantilever over the edge of the disc.) Note their placement and remove them. Wet the backs of the coils and the areas on the disc where they will be placed. Extrude syringe clay onto the backs of the coils and position them evenly on the disc with the tails facing the centre. Clean away any excess syringe with the water brush and set the disc aside to dry. While it is drying, roll and then dry approximately 30 small balls of clay in varying sizes to go into the areas between the coils. Place a few drops of water in a shallow puddle on a piece of non-stick sheet. Place about a third of the dried clay balls on the water to rehydrate and soften a bit. Only the undersides of the balls should be in the water. Moisten one of the plain areas between two of

the spiral coils and wait a couple of minutes for the water to absorb into the surface of the clay. Pick up a ball of clay with tweezers and press it gently into the moistened area of the disc [13], wiggling it slightly as you press to make sure the ball is firmly stuck to the surface. Repeat with additional moistened clay balls until you have decorated the entire area between the two spirals. Repeat this process to embellish the remaining areas on the front of the clasp, then dry thoroughly [14].

■ **STEP 10: Drill the stone settings in the links.** Put on a dust mask or particulate respirator to prevent you from inhaling the clay dust during this step. Hold the edges of the coiled end of a link steady with your non-dominant hand and use a 3mm stone setting bur to drill a conical setting in the centre of the coil [15]. I drill on a hard rubber block to allow the tip of the bur to drill through the clay more easily. Make sure the fragile link is fully supported while you are drilling the setting. Proceed slowly, removing the bur to brush away the clay dust periodically and then using one of the 3mm stones to check the fit. The table of the stone must be level and even with the surface of the clay, and the stone's girdle must be embedded evenly into the clay around its entire circumference. Note: Be careful not to drill too deeply; stop drilling as soon as the stone fits into the setting snugly. Only the very tip of the bur should drill through the back of the piece and into the rubber block [16]; if the seat is drilled any deeper,



the hole will be enlarged and the stone will fall through it. Invert the link to remove the stone (you can poke it out carefully from the back with a needle tool if it doesn't drop out on its own) and set the link aside. Repeat this step to drill 3mm settings in the 23 remaining links.

STEP 11: Drill the stone settings in the clasp. Drill a shallow depression in the centre of one of the coils with a 4mm stone setting bur. Stop as soon as the depression is deep enough to seat the tip of a 1.5mm drill bit securely. Brush away (and save) the clay dust. Drill all the way through the clasp with the 1.5mm drill bit [17], creating a pilot hole for the 4mm stone setting bur that will allow it to cut through the clay more easily. Drill a stone setting with the 4mm bur as you did with the 3mm bur in the previous step. Repeat this step to drill 4mm settings in the two remaining coils on the front of the clasp. Note: The holes will be covered on the back of the clasp by the hooks in a subsequent step.

STEP 12: Lay out the links, clasp and stones. Spread out all the links and pair them up by size, arranging the pairs in order from smallest to largest [18]. Place the S-shaped two-loop link at the centre back of a large, flat surface on which the necklace components may remain until you are ready to fire them. Then lay out the links in a circular pattern. Beginning with the smallest links and continuing in size order, place one link from each pair on either side of the S-shaped link, so that the largest links are at the front. Place the clasp at the front between the two largest links. Place a yellow 3mm CZ inside the loop of the link directly to the left of the S-shaped link. Place a blue 3mm CZ inside the loop of the adjacent link, followed by a pink 3mm CZ inside the loop of the third link. Continue to arrange 3mm stones inside the loops of the links, repeating the yellow-blue-pink colour sequence until you reach the clasp at the front. Repeat this process on the other half of the chain, except reverse the order of the

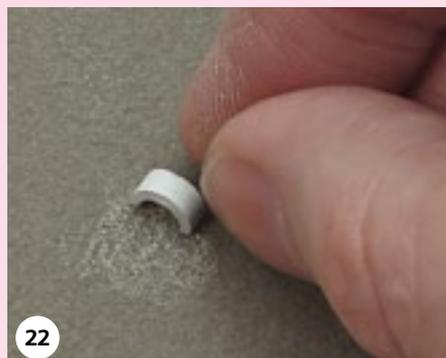
colours. Starting just to the right of the S-shaped link, begin with a pink stone, followed by a blue stone and a yellow stone, respectively. Maintain the pink-blue-yellow colour sequence until you reach the clasp. Arrange the clasp so that one of the three spiral coils is at the bottom. Place the blue 4mm CZ next to the clasp near that coil, and place the yellow and pink 4mm stones near the upper left and upper right coils, respectively [19].

STEP 13: Set the stones. Starting with the largest link on either side of the clasp, remove the link from the layout and put some thick, creamy silver paste into the setting. Place the stone into the paste-filled setting with tweezers, being careful to seat the stone so that its table is perfectly level. Before the paste starts to dry, wipe away any excess from the exposed surface of the stone with the water brush [20], taking care not to shift the placement of the stone.



Editor's note: Use just enough paste so that a tiny bit squeezes out around the edges of the stone on all sides, but not so much that it covers any of the spiral coil. Raise the link to eye level on a platform, such as a rubber block or a turntable, then slowly rotate it 360 degrees to make sure the stone appears level from all sides. Adjust the seating of the stone, if necessary.

After setting the stone, return the link to its place in the layout, putting it face down to allow the paste on the back of the stone to dry. Set the stones for the remaining links in the same manner, working your way systematically around the chain, then set the 4mm stones into the clasp. When the paste on the backs of the links is completely dry, make sure it covers the points of the stones completely. If the paste does not cover the points of some of the stones sufficiently, add small blobs of



paste onto the backs of those stones and set the links aside to dry again. Wipe the dried paste on the back of each link with a moist baby wipe and immediately smooth it with your fingertip.

■ **STEP 14: Make the link connectors.**

Roll out a small rectangle of silver clay to a thickness of 1mm, using stacks of 4 playing cards or blue graduated slats. Cut a narrow strip of clay 3mm x 11mm [1/8" x 7/16"] and curve it over a 4mm drinking straw, forming a U-shaped connector [21]. Set it aside to dry completely and then sand the sides and ends of the connector flat [22]. Smooth the surfaces with a baby wipe. Next, test fit the connector: Turn two adjacent links face down, overlap them so that the loop of one link rests on the centre of the adjacent link's spiral coil, and then place the connector so that both the ends straddle the loop and sit flat against the

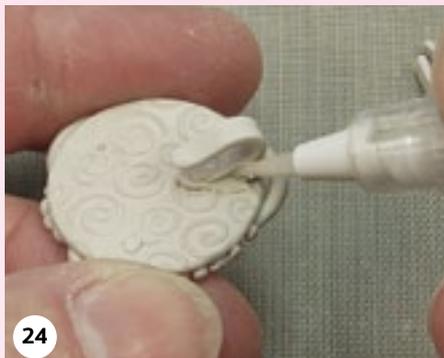


coil [23]. There needs to be enough room for the loop of the link to move around freely inside the connector. Test fit the connector with several different pairs of links, since each link will vary slightly. Depending on the thickness of your snakes, the U-shaped connector may not be deep enough to allow some of the links to move freely. If this happens, roll and cut a slightly longer strip of clay and make a connector with longer legs. Allow it to dry and repeat the fit tests. Once you have determined the correct length to cut your strips, make a total of 24 connectors plus a few spares to allow for breakage. Dry and refine the connectors.

■ **STEP 15: Assemble the clasp.** Place the two hooks on the back of the clasp with the curved ends facing up. The curved ends of the hooks should be aligned with the upper edges of the top two spiral coils and the

A QUICK AND EASY TIP FOR CUTTING THE CONNECTOR STRIPS

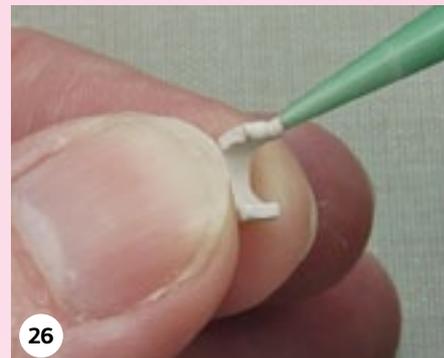
Here's a fast and easy method for measuring and cutting all the connector strips at one time. Form a long, fat snake of clay and roll it out to a rectangular slab 1mm thick and at least 15mm wide x 76mm long [5/8" x 3"]. Cut straight down the centre of the slab lengthwise with a lightly oiled clay blade or tissue blade. Measure and make two more lengthwise cuts 3mm apart on either side of the centre cut. You should have four long strips. Trim one end of the slab at a 90° angle to the lengthwise cuts. Measure and make six additional crosswise cuts 11mm apart (or whatever length you determined during the test fitting), creating a total of 24 strips. Tip: Cut an extra row of strips as backups in case some of the connectors break when you are sanding or attaching them. Remove only one strip at a time and cover the remainder with a moist baby wipe to prevent them from drying out until you are ready to use them.



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open ends should point towards the centre of the clasp. (Refer to **photo 25** for placement of the hooks.) With a pencil, mark the locations of the two hooks and then remove them. File those areas flat. Apply syringe clay to the bottom of one of the hooks and press it firmly onto the flat area you prepared for it. Use the water brush to remove any excess syringe clay before it dries [24]. Attach the second hook in the same manner. Make a raised decorative element about 3mm [1/8"] tall and attach it to the back of the clasp near the bottom centre [25] to make the clasp rest flat against the wearer's body. I used a small disk of clay impressed with my logo.

STEP 16: Assemble the links into a chain.

Since you will be assembling the links with the stones facing downward, make sure to double-check the colours of the CZs in each link so that they remain in the correct order throughout the assembly process. Starting at one end of the chain (next to the clasp), place

the first two links face down on a rubber block or other surface that allows you to rotate them easily. As you did when test-fitting the connectors, overlap the loop of one link over the centre of the back of the spiral coil on the next link. Apply some syringe clay to the ends of a U-shaped connector [26] and position it so that its opening straddles the overlapping loop. Adjust the positioning, if necessary, so that the connector's ends are centred on the back of the spiral coil underneath. Press the connector down firmly to attach it securely to the back of the spiral coil. Keeping your finger on top of the connector to hold it in place, reinforce the join by pushing the excess syringe into and around the seam with the water brush. Wipe the water brush on a piece of damp sponge or moist baby wipe to clean it and then use it to smooth and tidy the join [27]. Keep rotating the links and working your way around both sides of the connector, reinforcing and smoothing the inside as well as the outside of the join. Still holding the

connector in place with your fingertip, gently rotate the top link and carefully remove any syringe clay that may have gotten onto the loop. Set the links aside to dry where they will not be disturbed. If you have done a thorough job of tidying the join with the water brush, no sanding should be needed after the join is dry [28]. Join the next two links in the same manner and work your way around the chain, joining two links at a time and making sure to keep them in the correct order [29]. Set all the links aside undisturbed until they are completely dry. Join the first two pairs of links with a U-shaped connector to create a four-link chain. Reinforce and smooth the join as before and allow it to dry completely. Then add the next pair of links to this chain with another connector, creating a six-link chain. Reinforce, smooth and dry the join as before. Continue to add link pairs to the chain in this manner until all the links are connected in the correct order. The completed chain will be very fragile, so handle it with care! Do a



final inspection of each link, making sure every stone is completely free of any silver clay residue [30]. *Editor's note: You also may wish to give each CZ a final swipe with a cotton- or sponge-tipped swab dipped in alcohol to ensure that any remaining silver clay residue is removed completely before firing.*

■ **STEP 17: Fire the chain and clasp.** Place the completed chain and the clasp face down on a kiln shelf, nestled on a layer of ceramic fibre blanket [31] or vermiculite. Arrange the links so that the chain is not fully extended, overlapping the links a bit to allow for shrinkage during firing, and place the shelf in the kiln before turning it on. Ramp the kiln at full speed to 800°C [1475°F] or 900°C [1650°F], depending on the heat tolerance of your stones, and hold for two hours at the target temperature. Allow the chain and the clasp to cool slowly in the kiln before removing them. When the silver is at room temperature, start at one end of the chain and work your way along the links, gently loosening any that may have stuck together a bit during firing.

■ **STEP 18: Burnish, patinate and polish the chain.** Burnish the chain and clasp to a high shine in a magnetic or rotary tumbler. *Important: Never hold a chain in your hands while polishing with a motorized polishing tool. The chain can catch and cause serious injury to you (and damage to the jewellery)!*



Gently adjust the openings of the hooks on the back of the clasp, widening them only enough to allow them to fit over the links at the ends of the chain. Add a liver of sulphur patina to the completed necklace. Then remove the patina with a silver polishing cloth from all but the recessed areas, bringing the silver back to a high shine [32, 33].

Variations:

Finish the back to as high a standard as the front to make the chain reversible. Slip the chain off the clasp, turn it over so that the plain side of the links faces outward, and reattach it to the stone-set clasp.

Make enough links so that they can be joined into a continuous chain that can slip over the head without any clasp. Be sure to add links in multiples of the number of stone colours you are using so that the colour pattern of the stones will be consistent all the way around the chain.



To make matching earrings, make six extra links and join them in groups of three. Fire them and then add jump rings and ear wires. To create a suite or demi-parure, also create matching rings or a bracelet using CZs in the same colours [34].

For a matching bracelet, make the links from sterling silver clay for durability. (For information on mixing sterling silver clay, see MCAM Vol. 2, Issue #2 and in Hadar Jacobson's project article on p. 62 of this issue.)



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