

Mosaic Construction Guide

This guide explains how to trace, cut, assemble, and pack your custom mosaic design. Follow these steps for structural and clean results.

Step-by-Step Instructions

1 Print & Prepare Template

Download and print your tiled template at exactly 100% scale (do not check "fit to page"). Trim the left and bottom margins of the sheets using a utility knife and a metal ruler. Lay out the pages in grid order, align the dashed alignment lines precisely, and tape them securely on both sides.

2 Trace & Cut Backing

Secure the template to a premium foam board sheet (typically 1/4" or 3/16" thick; 1/4" is recommended for rigidity). Align the longest straight edge of the shape along the factory-cut edge of the foam board. Using a sharp standard utility knife with a No. 11 blade, trace the outline. A No. 11 blade is the best all-round blade for cutting foam board, and cutters that take razor blades work well for long straight cuts. Some blades have a slightly sticky surface that can rip the foam — if that happens, spray a little silicone onto the blade and it will slide much better. Wipe off any extra silicone oil afterwards to avoid mess. Make a light first pass to score the paper, and a second pass to cut through the foam completely.

3 Cut & Adjust Wall Strips

Cut wall strips from your scrap foam board. Use 2.5-4" wide strips for detail-heavy shapes (3" is good for 5" balloons) or 5"-7" wide strips for standard structures (6" is typically used for 11" balloons). For any inside center lines/inner walls, make the strips shorter in height by the thickness of the foam board (typically 1/4" or 6mm) so they do not stick out higher than the borders. Remember to keep all the outside borders exactly the same width to get a clean look.

4 Mark, Score & Bend Curves

Position strips along the shape and mark where the bends start and end. Use an L-square, T-square or steel ruler to cut vertical scores (an L- or T-square helps keep the cuts straight and at 90 degrees). For gradual curves, score lines 1/2" to 1" apart. For tight curves, place scores closer together (test first if you are unsure which works). Cut only the top paper and inner foam, leaving the backing paper intact to act as a hinge.

5 Assemble Inner Walls & Borders

Glue any inside center lines/inner walls first before adding outer borders. Glue the wall strips to the cut backing using a high-temperature hot glue gun. For internal walls it is best to place glue along the whole internal wall, put it in place and hold for 10-15 seconds until set. Temporarily secure the glued sections with masking tape to keep them in place while proceeding with the assembly (if needed).

Glue the borders in sections to avoid the glue setting too fast — 10"-15" sections typically work well, before adding glue to the next section. Wait 10-15 seconds, holding the wall in place to let the glue settle, and use masking tape if needed to keep the wall in place while proceeding to the next section.

6 Pack & Secure Balloons

Under-inflate your balloons to maintain their round shape and prevent popping. Pack them tightly into the frame (compressing them slightly) to completely fill the space and cover the backing board. Secure balloons to the backing and to each other using for example Weiss COSMO CA-500.110 super glue (best super glue for latex balloons), Uglu dashes, low-temp hot glue, or high-quality glue dots.



Professional Tips & Warnings

Pro Tips

- **Factory Edge:** Aligning the longest straight wall of your shape against the factory-cut straight wall of the foam board sheet saves time and foam board.
- **Blade Selection:** Always use a sharp standard utility knife with No. 11 blades. Replace your craft blade every 1-2 letters to prevent tearing the foam center — or whenever you feel the blade starting to rip the foam.
- **Inside scoring for clean bends:** For very large radius (gentle) curves, you can score the inside of the bend so no score lines are visible on the outside. Be careful not to rip the paper backing, as the outside will be under tension.
- **Support Braces:** For higher shapes (over 4 feet tall), glue at least 2 triangular foam board braces behind the backing board. These hold the structure up so it cannot fall backwards. It is also advisable to glue a connecting piece between the triangles to stop them bending or being ripped off the back. If you place that connecting piece towards the floor, you can add a small weight on top of it — the weight, together with a tie-off point, is what stops the piece falling forward. If there will be a lot of movement near the piece, add an attachment point higher on the back and tie it to a back wall, balloon wall or any other structure behind it — especially outdoors.

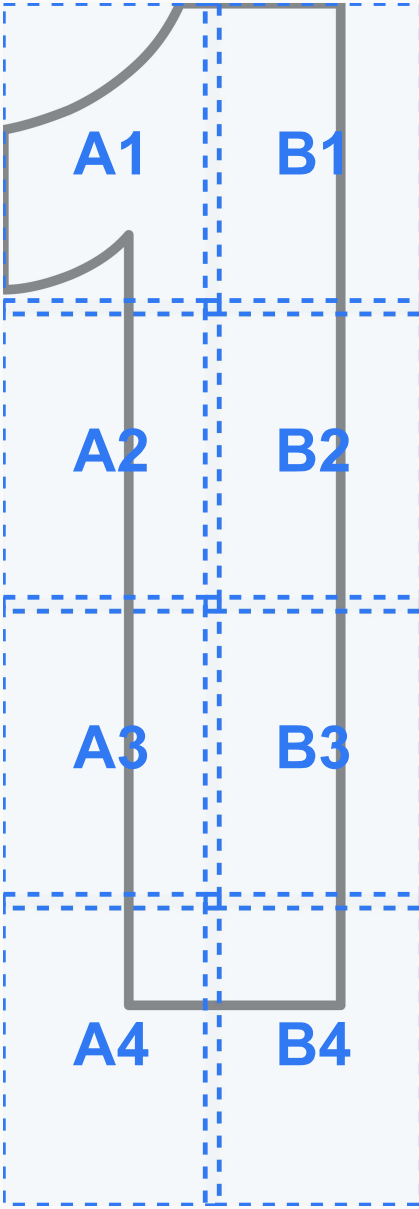
Warnings

- **Segmented Blades:** Do not use snap-off utility knives or box cutters. The blades are too thick and flexible, causing beveled, uneven edges and foam tearing.
- **Glue Gun Temp on Latex:** Never use high-temperature hot glue on balloons. The heat will melt the latex instantly. Only use low-temperature glue guns or specialized balloon adhesives.
- **Glue Dots in Cold Weather:** Glue dots are fast, but some brands lose adhesion in cold temperatures. Test your adhesives beforehand if the event is outdoors or in cold environments.
- **Foam Board Quality:** Avoid cheap, single-ply discount store foam boards. Their backing paper delaminates easily under tension, causing your glued walls to pull away.



Page Layout Map

Trim margins along the dotted lines marked with scissors (✂) and tape the sheets in this order.



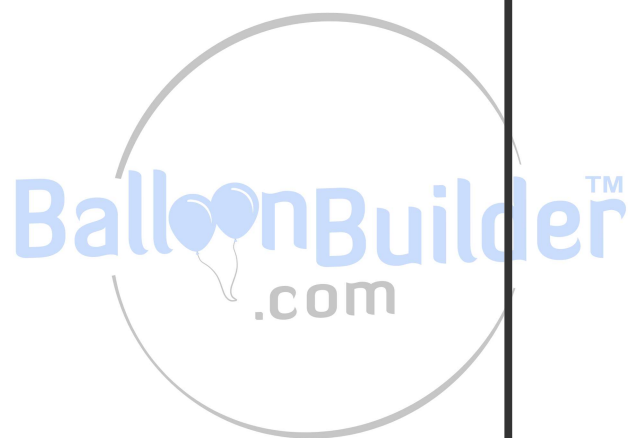
Target Shape Size: 31 cm (1ft 0in / 12.2") W x 92 cm (3ft 0in / 36.1") H

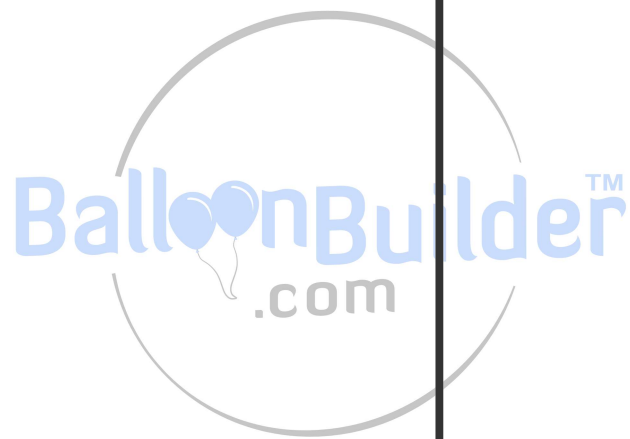
A1



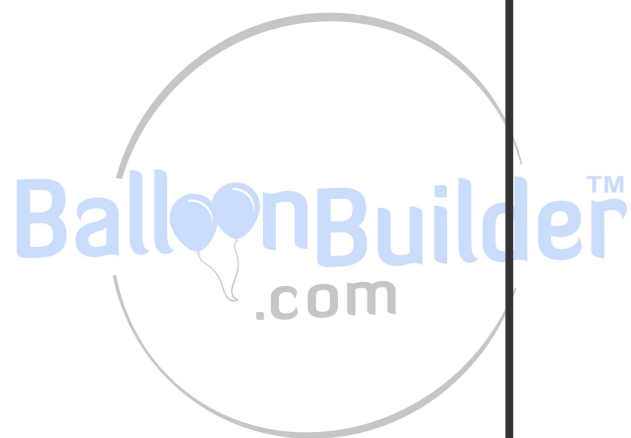
Shape 1 — Sheet A1 (Row 1, Col 1)

B1

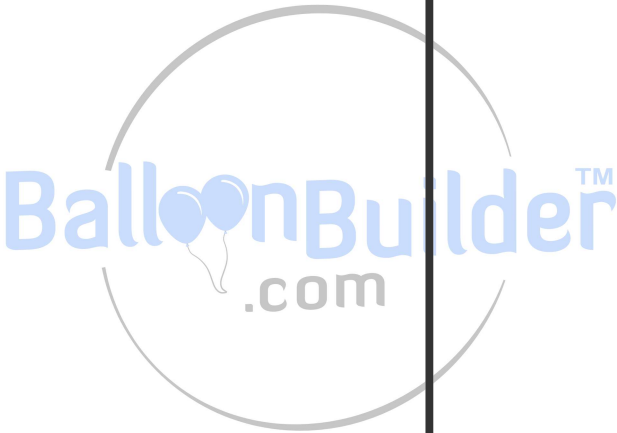


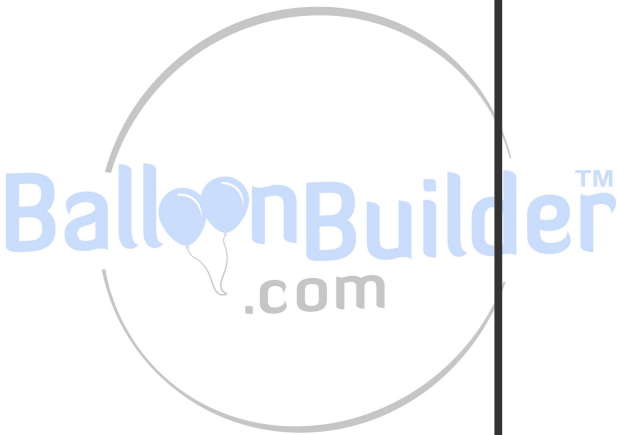


B2



Shape 1 — Sheet B2 (Row 2, Col 2)







B4

