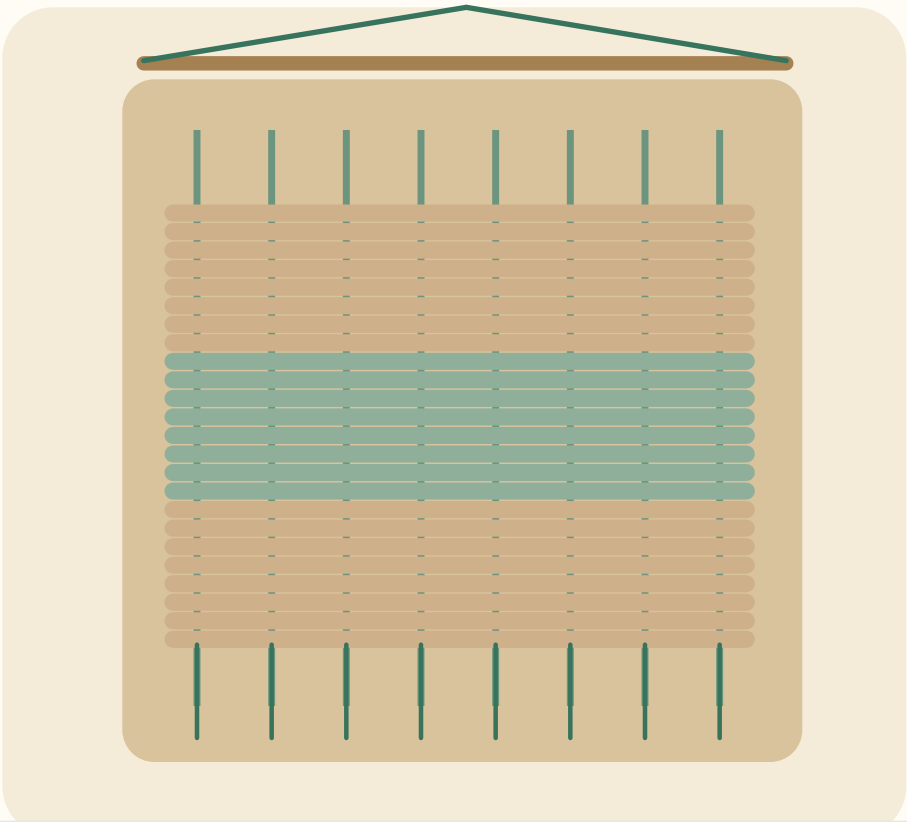
STEADLEAF PRESS / MAKE / FREE

Weave a Mini Wall Hanging on Cardboard

An original eight-warp plain weave, made by hand on a simple loom



8 WARP COLUMNS / 24 WEFT PASSES

Three A / B / A bands, a two-pass weave map and two maker records

FREE digital guide / 14 original instructions / PDF and print sheets

Illustrated teaching artwork, not a physically woven or load-tested sample.

Start weaving with eight warp threads

Original lesson / cardboard and yarn, no physical test

A small loom you can cut from packaging

This lesson turns sturdy, flat cardboard into a temporary loom for a narrow decorative woven panel. Eight vertical warp strands stay aligned through matched top and bottom notches. Three short sections of weft pass horizontally over and under those strands. When the weaving is finished, the eight top ends are tied in pairs around a lightweight dowel and the eight bottom ends are tied in pairs for a small fringe. The approx. 12-cm dowel spans only the woven warp field (about 8.4 cm across), not the full cardboard width. The resulting object is a decorative sample, not a structurally tested wall fixture, hammock, pet toy, wearable, or load-bearing textile.

Learn two directions and one repeat

Warp means the eight vertical strands held across the front of your cardboard. Weft means the horizontal yarn passing between the warp strands. In plain weave, a weft pass goes over warp 1, under warp 2, and continues alternating across all eight. At the right edge, take a relaxed arc around the outside warp; the arc is an edge turn only, NOT another counted over/under crossing. On the next pass from right to left, cross that SAME warp in the opposite way as the first counted crossing of the new pass. One new pass therefore changes the over/under relationship at every warp. That alternating structure, not the colour pattern, is what holds the textile together.

Start with a reproducible, modest plan

Use a cardboard panel approximately 17 cm wide × 22 cm tall. Mark eight notch positions across the top, with corresponding positions across the bottom, each 12 mm apart; the first and last notches are about 4.3 cm from the side edges. Cut notches only about 6 mm deep. Use eight separate warp lengths, each roughly 55 cm long, one per matching top/bottom notch pair. Because each strand has an independent end at both the top and bottom, there are exactly eight upper tails and eight lower tails to finish later. If your cardboard, yarn, or tools differ, measure your actual layout rather than forcing the stated dimensions.

A simple A / B / A woven field

The lesson uses a light colour A for the first eight weft passes, a contrasting colour B for the next eight, and colour A again for the final eight. That is 24 horizontal passes in all, not 24 warp strands. Work from the bottom of the loom upward, leaving several centimetres of unwoven warp above and below for handling and release. Yarn thickness affects the final height; the 24 passes do not guarantee any particular finished dimension. The band edges can appear uneven because yarn and hand tension vary.

Design the loom and finishing

Eight independent warps, careful edge turns and release

Tension matters more than speed

Keep warp strands reasonably straight, without bowing the cardboard. Turn the weft in a small, loose arc beyond the outer warp so the weaving's sides do not pull inward. Settle each completed pass gently against the preceding one with fingers or a wide, blunt comb; do not ram it down or force a precise row height. A pinched side or bent cardboard means tension should be reduced before proceeding.

Materials, boundaries, and rights

Choose corrugated cardboard without sharp staples; a ruler and pencil; closed scissors and a cutting mat; eight moderate-length warp pieces in smooth yarn; yarn in two colours for three weft bands; a blunt large-eye tapestry needle or a rounded handmade paper shuttle; removable tape; and a smooth lightweight dowel about 12 cm long plus a hanger cord. The dowel spans the approximately 8.4-cm woven warp field, not the entire 17-cm cardboard, with a small overhang for the hanger at each end. A sharp knife, box cutter or powered tool is not part of this beginner method. Cutting even shallow notches may need assistance from a capable adult, depending on the maker's age and ability. Keep scissors, yarn loops, small parts, and the finished hanging away from children, pets, beds and occupied seating; do not put heavy objects on the dowel. The publisher has not physically cut, woven, suspended, load-tested, washed or printed any sample.

Mark matched notches before cutting

Draw the 17 × 22 cm rectangle on clean, rigid card. Along the top edge, mark eight centres at 4.3, 5.5, 6.7, 7.9, 9.1, 10.3, 11.5 and 12.7 cm from the left side. Mark the *same* eight x-positions along the bottom edge. That gives seven spaces of 1.2 cm between warp columns. Use a ruler, not the diagram's screen size. The small notches should receive yarn without tearing the cardboard. If a notch is crushed or the card bends, replace the loom rather than tightening the warp more.

Thread one warp strand per column

For each of the eight 55 cm yarn lengths, guide the strand from the back through its top notch, straight down across the front through the matching bottom notch, and return both loose tails to the back. Secure the tails temporarily to the cardboard back with removable tape. Do not loop one strand across two adjacent columns in this plan; each column has its own two tails. At the front you should now be able to count eight separate parallel vertical strands, numbered 1 to 8 from left to right. They should have modest, similar tension, not pull the panel into a bow. Keep approximately 15 cm or more of each end at the back under its tape; do not trim these tails. After release, those back tails combine with the unwoven front portions to give enough length for pairing and tying.

Plan the two-pass weaving path

Colour bands, free ends and safe finishing

Two alternating paths, clearly counted

PATH ODD, moving left to right: over 1, under 2, over 3, under 4, over 5, under 6, over 7, under 8. Turn *loosely outside warp 8*; this turn is not an extra counted crossing. PATH EVEN, moving right to left: over 8, under 7, over 6, under 5, over 4, under 3, over 2, under 1. Turn loosely outside warp 1. The outer turn belongs beside the final warp, never between the outermost two; begin PATH EVEN by crossing OVER warp 8 as the first counted crossing. Each colour block contains four odd/even pairs. At a colour boundary, continue the same alternating sequence (pass 8 ends UNDER warp 1, so pass 9 begins OVER warp 1). PATTERN 2 draws the first two passes at enlarged scale; the same crossover sequence continues through all 24 passes.

Where yarn ends should go

Leave a working tail of about 12–15 cm at the beginning and end of each colour band. Three separately prepared weft bands create six weft tails, distinct from the sixteen warp ends. Keep the tails free at the side while weaving; do not tie a bulky permanent knot to a warp, and do not assume that an un-woven tail has been secured. When the last pass of each colour is complete, pass its working end toward the back near the side and weave it through several neighbouring same-colour weft turns with the blunt needle. Assess whether it stays in place by careful observation only. No durability or tensile strength is certified.

Release and finish without losing the warp

Before removing any tape, place the work on a clear table and confirm that all eight top and eight bottom tails remain distinct and untrimmed. Each released tail includes its long taped-back portion (about 15 cm or more), not merely the few centimetres visible between weaving and the notch. If tails were accidentally cut short, do not pretend a pair knot can be safely tied; use a new practice loom or appropriate textile-specific finishing guidance. Carefully lift each warp end out of its corresponding notch one by one while holding the panel flat; don't cut across a set of tensioned ends. Tie adjacent pairs of upper warp ends (1+2, 3+4, 5+6, 7+8) around the lightweight dowel, leaving enough length for secure ties. Tie the four corresponding lower pairs just beneath the weaving and let the remaining ends form fringe. Attach a separate light hanger cord to the dowel's ends with secure knots. This decorative hanging is not weight-rated; display it only where a fall or loose cord cannot harm anyone.

Steps 01-04 / Prepare the loom

Mark, cut and warp a small stable cardboard frame

1. Prepare a flat, safe work surface

Put the cardboard on a stable table or cutting mat. Gather a ruler, pencil, scissors, yarn colours A and B, eight separate warp strands, removable tape, blunt yarn needle, light dowel and hanger cord. Remove staples or sharp fragments from recycled card. A sharp craft blade is not required by this lesson; anyone unable to cut safely should get appropriate adult assistance.

2. Draw the 17 by 22 cm cardboard loom

Mark a rectangle approximately 17 cm wide and 22 cm tall, with the long direction vertical. Draw eight aligned notch marks across both the top and bottom edges, with centres 12 mm apart starting about 4.3 cm from the left side. Count eight positions on each edge, not eight spaces. PATTERN 1 is an original cut-plan diagram; check actual measurements on your ruler.

3. Make eight matched top-and-bottom notches

Use closed scissors carefully to open a short slit at each of the sixteen marked positions, about 6 mm into the card. Keep fingers away from cutting edges. Match each upper slit directly with its lower partner. Stop if the cardboard frays badly or a notch becomes too wide to hold yarn; use a new piece of card rather than pulling more tightly.

4. Place eight individual warp columns

Take eight separate yarn lengths, each approximately 55 cm. For warp 1, guide one strand from the back through top notch 1, directly down the front through bottom notch 1, and keep both tails on the back under removable tape. Repeat for warp 2 through 8, one strand per column. You should see eight vertical strands on the front and sixteen separate loose ends temporarily taped on the back. Keep at least about 15 cm of each tail on the back instead of cutting them short; those tails will provide the knotting length after release.

Steps 05-08 / Begin plain weaving

Keep the warp straight and complete the first eight passes

5. Check the warp's count and gentle tension

Number the front strands from 1 (left) to 8 (right). They should be reasonably parallel but not guitar-string tight. If a strand pulls a notch sideways or bends the cardboard, loosen and re-tape that strand before weaving. Leave several centimetres of open warp near both ends of the card to allow for release and tying later.

6. Start the first colour A pass at the lower left

Thread a manageable piece of A into a blunt tapestry needle or rounded paper shuttle, leaving about 12–15 cm free at the beginning. About 3–4 cm above the bottom notches, weave left to right: OVER 1, UNDER 2, OVER 3, UNDER 4, OVER 5, UNDER 6, OVER 7, UNDER 8. Do not drag the beginning tail through the warp or tie it to a vertical strand.

7. Turn and weave the opposite path

At the right edge, take the A strand in a small relaxed arc outside warp 8. This side arc is NOT another over/under crossing. For pass 2 moving right to left, make the first counted crossing OVER 8, UNDER 7, OVER 6, UNDER 5, OVER 4, UNDER 3, OVER 2, UNDER 1. The turn should not squeeze outer warp 8 against warp 7. Gently settle the two passes together with fingers; avoid pulling the weft so tightly that the sides narrow.

8. Complete eight A passes in all

Repeat the same two-pass cycle three more times, for eight A passes in total: passes 1, 3, 5, 7 use PATH ODD; passes 2, 4, 6, 8 use PATH EVEN. At the end of pass 8, you are at the left edge. Leave an A ending tail, then bring it behind the nearest edge without making a bulky knot. Record eight passes in RECORD 1.

Steps 09-11 / Change yarn and finish

Two further bands and careful weft-tail weaving

9. Work the eight contrasting B passes

Use a separate B strand with a fresh 12–15 cm starting tail at the lower-left edge of the next band. The ninth pass, moving left to right, repeats PATH ODD; the tenth repeats PATH EVEN. The over/under sequence continues across the colour change: pass 8 ended UNDER warp 1, so pass 9 begins OVER warp 1; changing yarn does not restart a different structure. Work passes 9–16 as four alternating pairs. Keep the same relaxed turn at each outer warp. End B after pass 16 at the left edge and leave a useful tail; do not carry A vertically behind B.

10. Return to A for passes seventeen through twenty-four

Introduce a separate new working length of A at the left edge, again leaving a tail. Work passes 17–24 as four more odd/even pairs, exactly as before: pass 17 goes left to right and pass 18 goes right to left. Leave roughly 3–4 cm of unwoven warp between the last pass and the upper notches; the additional uncut, taped-back warp tails (about 15 cm each) provide knotting length after release. If your yarn is too bulky to fit all 24 passes with that clear space, choose thinner practice weft or a taller loom rather than crowding the knots. End at the left edge, leave the A ending tail, and stop with 24 weft passes total, grouped 8 A + 8 B + 8 A.

11. Secure the six weft ends on the back

Keep the loom flat while you take each of the three starting and three ending weft tails to the reverse side near its own colour area. With the blunt needle, weave the tails through several neighbouring yarn turns without piercing or cutting the warp. Avoid pulling the sides inward. If a tail keeps slipping or the fibres split, stop and seek fibre-specific guidance; do not claim a universal knot-free holding strength.

Steps 12-14 / Release and hang

Finish knots and correct the most common problems

12. Release the eight warp pairs carefully

Hold the woven panel against the cardboard. Remove the temporary tape from one end at a time, then gently lift each warp strand out of its matched notch. There are eight free top ends and eight free bottom ends because the eight warp strands were installed separately. Never snip all warp ends short or cut through the woven field. If the panel loosens, place it flat and reassess instead of tugging the strands tight.

13. Tie the top to a light dowel and pair the bottom fringe

Work across adjacent warp numbers (1+2), (3+4), (5+6), (7+8). Wrap each upper pair around the lightweight smooth dowel and tie a secure pair knot close to the top of the weave, checking that the fabric is supported evenly; use a firm double overhand or other well-understood secure knot suitable to the yarn. At the lower edge, tie the same four adjacent pairs just below the woven fabric and leave the remaining tails as a short fringe. Do not cinch the weave into a narrow bundle.

14. Add a hanger and document the result

Tie a separate light cord to the left and right ends of the dowel so the small panel can hang for a decorative view. Keep the cord short and display away from cribs, beds, occupied seating, pets or places where a falling dowel could injure someone. Complete RECORD 2: actual number of warp strands, weft passes, edge shape, yarn ends, knots, approximate finished width/height and whether the piece hangs visibly level. Record observations, not a certified load, strength or finished dimension.

Fix, care and preserve

The cardboard bends or the slots tear

The warp is too tight for the card or the notches are damaged. Loosen or replace the offending warp before weaving; if the board is deformed, replace the loom. Stronger pull is not a repair. The cardboard is a temporary weaving aid, not part of a load-bearing display.

The weaving pulls inward at the sides

The weft may be cinched around the outermost warp. Let the turn form a relaxed arc outside warp 1 or 8. On the next pass, cross that same outer warp in the opposite direction. Do not stretch a completed band to meet a drawn rectangle; record its actual width.

Fix, limits, rights and provenance

Complete troubleshooting and technical boundaries

The passes no longer alternate

Read the last two paths against PATTERN 2: pass 1 over warp 1, under warp 2 through under warp 8; pass 2 over warp 8, under warp 7 through under warp 1. A missed warp or repeated crossing can produce a float or gap. Carefully unweave only the recent mistaken passes with the ends secured, then remake them; do not knot over the mistake.

A yarn end pulls loose after weaving

An end hidden behind the piece is not necessarily secure. Weave it through additional adjacent turns of comparable colour using a blunt needle, but avoid damaging or thinning a yarn strand. Fibre type affects how well ends hold. If the hanging will be handled repeatedly, use additional yarn-specific finishing guidance; no durability testing has been performed here.

The hanging tilts or its knots slip

Set it on a table. Check that all four upper warp pairs are tied securely around a suitably smooth, light dowel and the hanger cord is attached at both ends. Retie an uneven pair rather than pulling one fringe to force balance. If a knot or dowel cannot be secured reliably, do not hang it; keep the weaving flat as a decorative sample. Never place it above a sleeping person or use it to hold anything.

Original method and scope

This guide's eight-individual-warp cut plan (17 × 22 cm cardboard, eight aligned 12-mm-spaced notch pairs, 55-cm separate warp lengths), 24-pass A/B/A plain-weave teaching sequence, reversible two-pass diagram, edge-tension checks, two editable maker records, vector technical illustrations, and layout are original educational designs produced for Steadleaf Press. They are not a tested commercial pattern. Counts are exact for the proposed exercise; real dimensions and fibre consumption remain user-dependent.

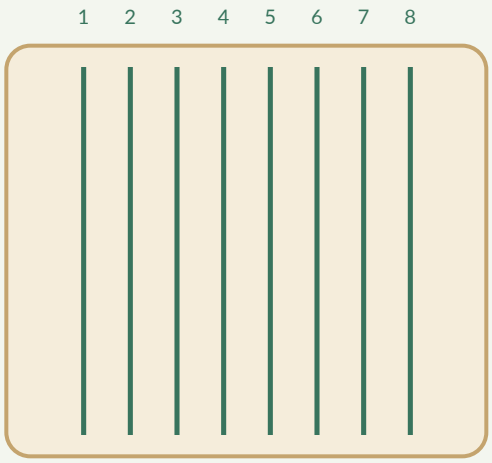
Background reference links (not reproduced)

- Oakland Museum of California — Cardboard Weaving (warp, weft, notch cutting, release and finishing):
https://museumca.org/learn-at-home/cardboard-weaving/
• B+C Guides — Weave on Cardboard Loom (plain-weave opposite passes, relaxed edges):
https://guides.brit.co/guides/weave-on-cardboard-loom
• Toronto Guild of Spinners and Weavers — How to Make a Woven Bookmark (different project; background on opposite plain-weave passes and maintaining edge tension):
https://toronto-guild-of-spinners-and-weavers.com/wp-content/uploads/How-to-Make-a-Woven-Bookmark.pdf
Only external technical principles were consulted; no third-party images, instructional diagrams, text or templates were copied. No physical loom, textile, sharp-tool trial, knot test, hanger load test, real printing or calibrated scale verification was performed. Small yarn loops, scissors, dowels and loose hangers can pose hazards around children and pets. This is an adult decorative craft lesson, not a child-safe product or a tested mounting system.

Two original vector diagrams

Loom cut layout and the exact alternating weft paths

PATTERN 1 / CARD LOOM PLAN



BOARD: 17 x 22 cm

Eight matching notch pairs

Notches 12 mm apart / 6 mm deep

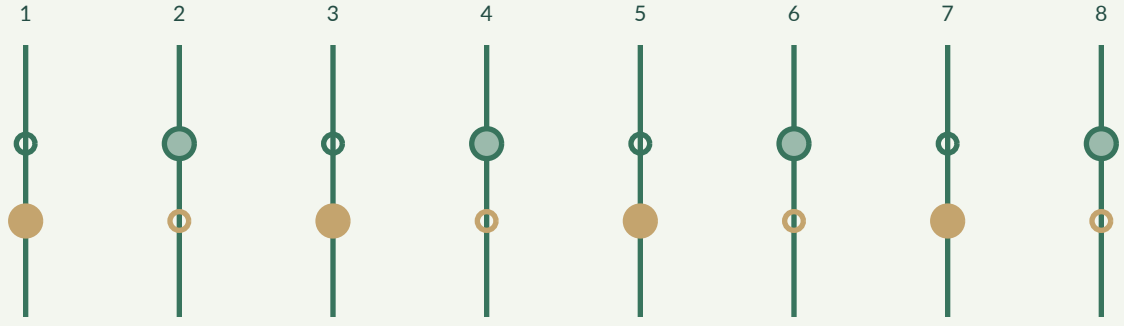
8 separate 55 cm warp pieces

Retain long taped-back tails

Finished woven field ~8.4 cm

PATTERN 2 / OVER / UNDER PASSES

Same edge warp is crossed opposite on the next pass; the outside turn is not counted.



PASS 1: over 1, under 2 ... under 8 / PASS 2: over 8, under 7 ... under 1

Continue 8 A + 8 B + 8 A passes. Filled circles = over, hollow = under.

Record 1 / Loom and 24-pass tracker

Count the eight separate warp columns and the three colour blocks

Date / maker initials	☐
Card width (suggest 17 cm)	☐
Card height (suggest 22 cm)	☐
Top notch count (8)	☐
Bottom notch count (8)	☐
Notch spacing (suggest 12 mm)	☐
Warp strands independently cut (8)	☐
Warp length per strand (about 55 cm)	☐
Upper taped-back tails (8)	☐
Lower taped-back tails (8)	☐
Warp tension / board shape	☐
A passes 01-08 complete?	☐
B passes 09-16 complete?	☐
A passes 17-24 complete?	☐
Total completed passes (24)	☐
Actual woven field width / height	☐

Record 2 / Finishing and hanging observations

No load rating or dimension guarantee; record what you actually observe

- [ ] Yarn A / B / fibre notes
- [ ] Six weft ends woven behind?
- [ ] Eight upper warp ends released?
- [ ] Eight lower warp ends released?
- [ ] Upper pair 1+2 tied to dowel?
- [ ] Upper pair 3+4 tied to dowel?
- [ ] Upper pair 5+6 tied to dowel?
- [ ] Upper pair 7+8 tied to dowel?
- [ ] Four lower warp pairs secured?
- [ ] Dowel length / smoothness
- [ ] Separate hanger cord at both ends?
- [ ] Visible left edge tension
- [ ] Visible right edge tension
- [ ] Approx. real finished width / height
- [ ] Hanging appears level at display?
- [ ] No hanging above sleeping / sitting?
- [ ] No objects carried by weaving?
- [ ] Observations / remedial notes

Background technical resources (links only):

Oakland Museum — Cardboard Weaving

B+C Guides — Weave on Cardboard Loom