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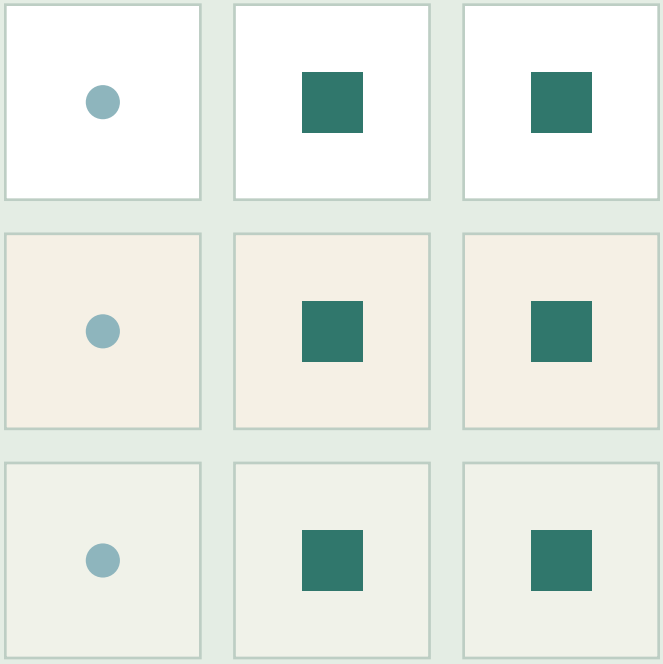
MAKE / PRINTING, STENCILS & COLOR

Compare Paper Surfaces for Water-Based Printmaking



THREE PAPERS / ONE COMPARISON

14 practical steps · Observe · print · compare

Original diagrams and two printable maker records

Illustrative plans — not physical test results

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Before you start

Paper is an active part of a print. A smooth sheet may hold a crisp mark while a more absorbent sheet draws liquid into its fibres. Surface texture, sizing, thickness, coating and paint formulation can all change the impression. This guide makes a small controlled home comparison rather than a formal laboratory absorbency test.

Materials: three known clean uncoated paper stocks suitable for the chosen water-based printing paint (for example smooth drawing paper, thicker mixed-media paper and textured watercolour paper); enough offcuts for three specimens of each; one flat 25 mm stamp, compatible water-based paint, applicator, dedicated non-food tray, ruler, pencil, optional clean 1 mL graduated needle-free oral syringe used exclusively for craft water, plain water, timer and protected support. If measured drops cannot be delivered consistently, mark the water comparison as qualitative. Follow product instructions and keep all paint separate from food.

Plan the project

Cut or obtain nine 80 x 80 mm squares: A1–A3, B1–B3, C1–C3, where A/B/C are the three paper types. Specimen 1 receives water only, specimen 2 one paint impression, specimen 3 a repeat paint impression. On each specimen mark a small reverse-side ID and use a centred mark at (40,40) mm. A 25 mm square footprint leaves 27.5 mm on each side when centred. Keep the paper face and fibre direction consistent within each type, and record the actual basis weight and surface description if supplied.

For the optional water observation place 0.1 mL plain water at the centre of each specimen 1 using a clean graduated dispenser, only if you can measure and deliver that quantity consistently without a needle. Observe the wet patch after approximately 10 and 60 seconds, recording spread, beading, strike-through and whether visible surface water remains. Do not press or blot during observation. Use separate specimens 2 and 3 for printing, identical paint, stamp, application and ordinary contact. Compare dry impressions in the same light. These are descriptive observations, not calibrated material ratings.

Steps 01–02

1. Identify the three stocks

Choose three paper types with distinct documented surface descriptions, suitable for the paint selected. Avoid glossy unknown coatings, contaminated packaging or important original artworks. Record the paper name, maker and weight if available; do not guess missing specifications. Mark A, B and C by the manufacturer’s description rather than assuming which will be most absorbent.

2. Prepare nine matched squares

Use a ruler and scissors appropriate to the stock, or obtain pre-cut squares. Prepare three 80 mm squares from each paper and label the reverse A1–A3, B1–B3 and C1–C3. Keep the same face upward for each group. Use comparable pieces without creases, stains or edge damage. Place all nine on a clean flat support.

Steps 03–04

3. Control the comparison conditions

Let papers rest in the same room and record the approximate conditions if known. Keep all samples away from heat and draughts and use the same support for each. Use the same paint product and stamp for all printing specimens. Do not claim that home conditions reproduce a standardized test; the objective is to decide which paper suits this particular craft.

4. Mark the centre references

On the reverse or on a separate guide mark (40,40) mm as the specimen centre. Keep any pencil marks out of the paint and water patch. Set specimens 1 apart from specimens 2 and 3, so a wet water sample cannot alter the paint trial. Check that the 25 mm stamp leaves its nominal 27.5 mm margin.

Steps 05–06

5. Plan the water observation

Use only plain water and a clean dedicated measuring tool, without any needle. If available, a small graduated dispenser can deliver a nominal 0.1 mL. Use the same method and quantity for each water specimen, or use equal-looking drops from the same dropper and explicitly record that their volumes were not measured. Do not treat the two methods as numerically equivalent.

6. Observe each water specimen

Place the water at the centre of A1 and start timing immediately. At about 10 and 60 seconds note whether the patch beads, spreads or appears to soak in. Estimate the maximum visible patch width without touching wet paper. Repeat independently for B1 and C1. Keep each sample separate on a non-staining support and record actual timing and any delivery error.

Steps 07–08

7. Review the water samples

After the timed observations, let each specimen dry separately. Note any visible buckling or strike-through; inspect the reverse only when safe to move and dry enough not to smear or tear. A wide patch does not by itself measure absorbed volume, and surface disappearance may include evaporation. Treat the water observations as one clue about wet behaviour, not a ranking of quality.

8. Prepare the common printing method

Check the paint’s compatibility with all three stocks and the stamp. Use the same clean face, paint batch, applicator and support. Establish a light even film on unrelated scrap, without adding improvised thinners. Plan an ordinary modest contact and a vertical lift. Record the method and do not modify it for just one paper in the initial comparison.

Steps 09–10

9. Print the first matched set

Recoat the stamp with the same method before each impression. Print A2, B2 and C2 once at their centres, using the same ordinary contact and lift without sliding. Record the order, any uneven film or accidental movement and actual drying directions. An obvious handling error means the affected specimen should be remade on matching paper, not treated as a paper property.

10. Print the repeat set

Repeat the method on A3, B3 and C3, preferably alternating the order to reduce a simple sequence effect. Keep all paint specimens flat and separate while drying. If the paint becomes unusable during the session, stop and remake the affected set with a fresh consistent film. Do not alter the method between papers merely to improve their appearance.

Steps 11–12

11. Compare dry edge and texture

After label-specified drying, compare each pair under the same diffuse light. Note edge spread, gaps, colour coverage, texture visibility and reverse-side staining. Compare within each paper first; if its two specimens differ greatly, note the uncertainty before comparing across paper types. Use words and an optional photo with a ruler rather than inventing precise scores.

12. Select for the intended project

Decide whether the planned print benefits from crisp edges, textured marks or less apparent buckling. A paper that produces a clear solid motif may not be ideal for a textured image. Select a stock and explain the trade-off with the observed examples. If no sample is suitable, adjust one paint variable on a new matched set instead of assuming a cause.

Steps 13–14

13. Care for samples and equipment

Let all specimens dry fully before storing them in individual labelled sleeves or folders suitable for the media. Do not stack wet or tacky prints, force curling paper flat while wet, or expose the samples to strong sunlight. Clean the dedicated paint tools according to the label and local disposal guidance. Do not return the water dispenser to medical or food use.

14. Complete the comparison log

Record actual paper identities, optional drop volume and timing, visible water behaviour, matched dry print observations and selected paper. Mark SELECTION READY, REPEAT or HOLD. Keep any unmeasured value as UNKNOWN or NOT CHECKED. The record supports your next craft choice only; no standardized absorbency, permanence, colourfastness or safety grade is claimed.

Fix, care and preserve

Water volumes differ. Mark the comparison qualitative or repeat with equal measured drops.

Paper warps. Record visible change; compare only after drying without forcing it flat.

Print differs within a pair. Review film and contact, then repeat the matched set if needed.

Paint remains tacky. Follow the product instructions; do not stack or rate the result yet.

A paper is unknown. Exclude it or document its source before the comparison.

Source & evidence boundary

Original Steadleaf English prose, calculations, vector artwork, diagrams and maker records. The following sources provide factual context, not certification of this design. Follow actual product instructions and local disposal guidance.

Health Canada, Arts and crafts safety

https://www.canada.ca/en/health-canada/services/home-garden-safety/use-arts-crafts-materials-safely.html

Canadian Conservation Institute, Caring for paper objects

https://www.canada.ca/en/conservation-institute/services/preventive-conservation/guidelines-collections/paper-objects.html

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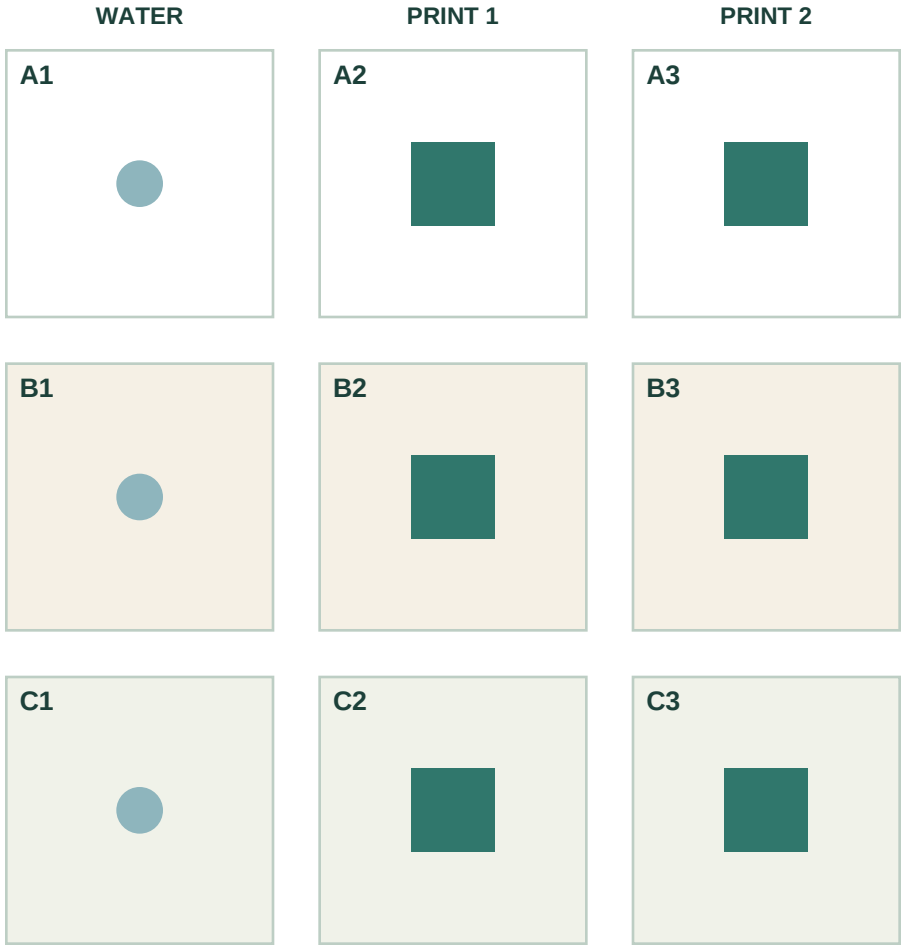
Nine-specimen comparison layout

Three stocks A, B, C; each has one 80 x 80 mm water specimen and two matching printing specimens. Label 1 = water; 2 and 3 = paint. Stamp centred at (40,40).

THREE STOCKS × THREE SPECIMENS

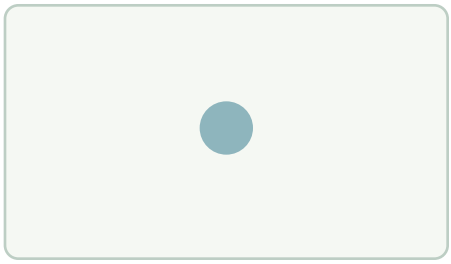


Each square 80 × 80 mm; print footprint 25 mm

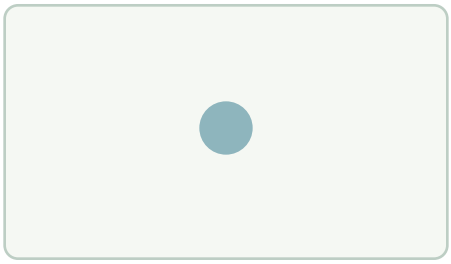
Observe water and dry impressions

Use the same water delivery method (0.1 mL only if consistently measurable). Observe at about 10 and 60 seconds. Separately compare dry prints for spread, coverage, visible texture and deformation.

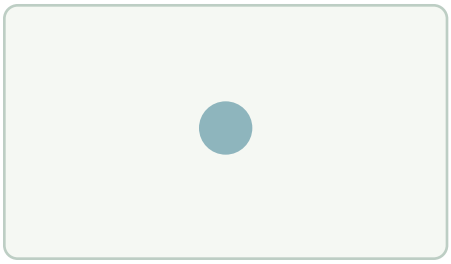
TIMED WATER OBSERVATION / SEPARATE FROM PRINTING



DELIVER



10 SECONDS



60 SECONDS

COMPARE ONLY ACTUAL DRY PRINTS

EDGE / SPREAD

COVERAGE

TEXTURE / SHAPE

Blank boxes are observation areas, not example test results. Record actual drop method, times and dry print differences.

Paper and water log

Enter actual observations only. Mark missing information UNKNOWN or NOT CHECKED. This is a craft record, not a safety or performance certificate.

Paper A / surface / weight

Paper B / surface / weight

Paper C / surface / weight

Water delivery method / volume

A1: 10 s / 60 s / dry

B1: 10 s / 60 s / dry

C1: 10 s / 60 s / dry

Delivery deviations / conditions

Matched print comparison

Enter actual observations only. Mark missing information UNKNOWN or NOT CHECKED. This is a craft record, not a safety or performance certificate.

Paint / stamp / common method

A2 and A3 / dry observations

B2 and B3 / dry observations

C2 and C3 / dry observations

Pair differences / uncertainty

Intended project / selected paper

Disposition: SELECT / REPEAT / HOLD

Drying / storage / date