

Repeat Pattern

There are many ways of repeating pattern:

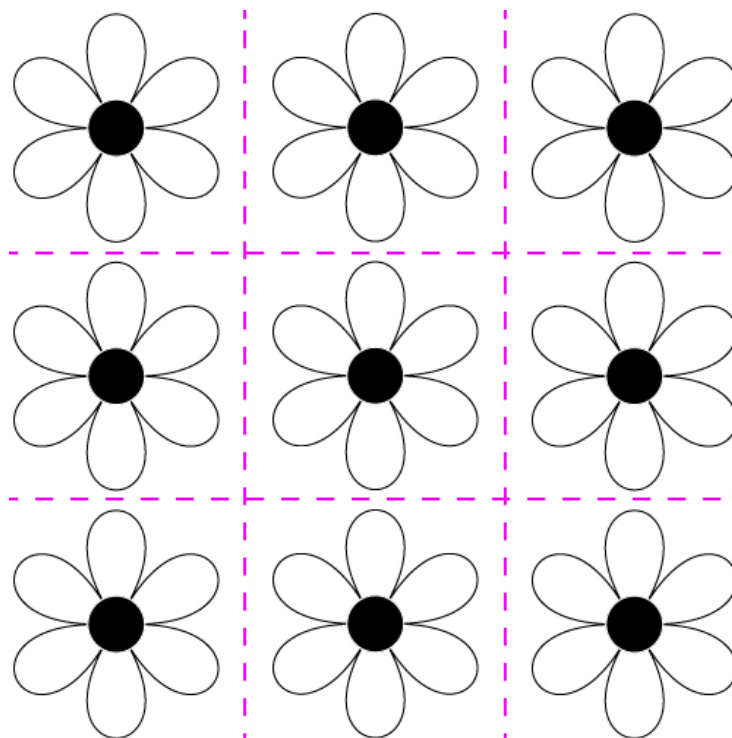
Continuous repeat – fabric printed the full width of the fabric and in a continuous length, metre after metre.

Panel print – a block of pattern is printed many times over, side by side and along the length of the fabric. The panel piece is then cut from this block, helping to eliminate waste.

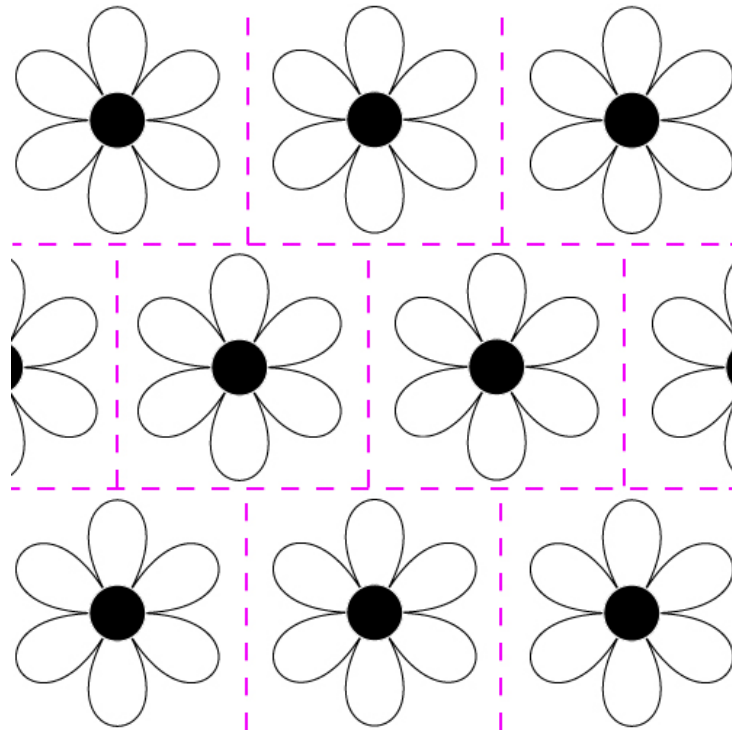
Engineered prints – the design is intended to fit within one of the pattern pieces of the garment so that it appears in a specific place every time. There can be a lot of wasted fabric in engineered prints, which can often be quite expensive in production terms.

Repeat printing refers to how a design is placed across the width and down the length of the substrate to be printed. Repeat patterns can come in many forms, with some of the most common arrangements being:

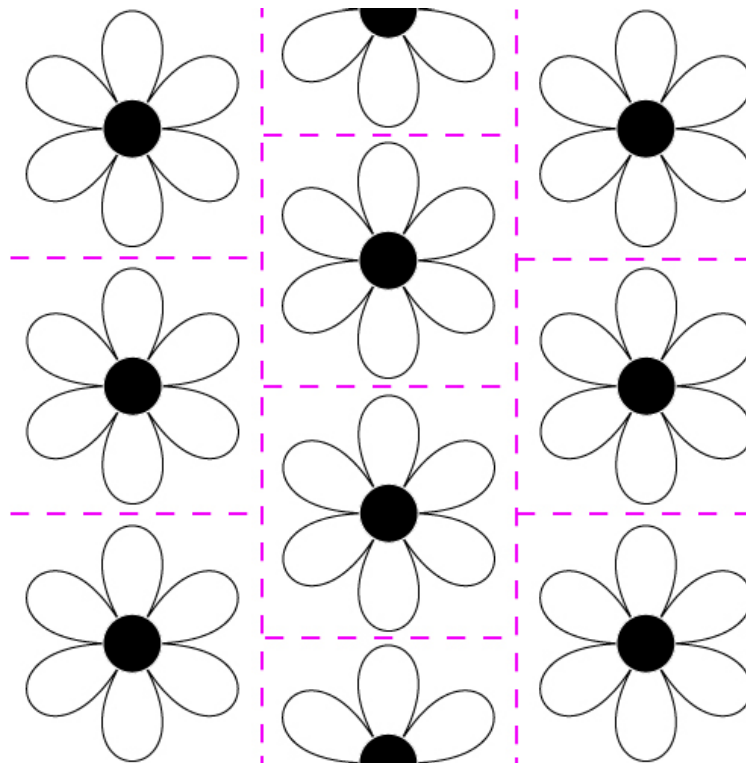
Full drop OR Block repeat. Arranged in a grid like pattern, each unit of repeat is arranged exactly next to and above each other.



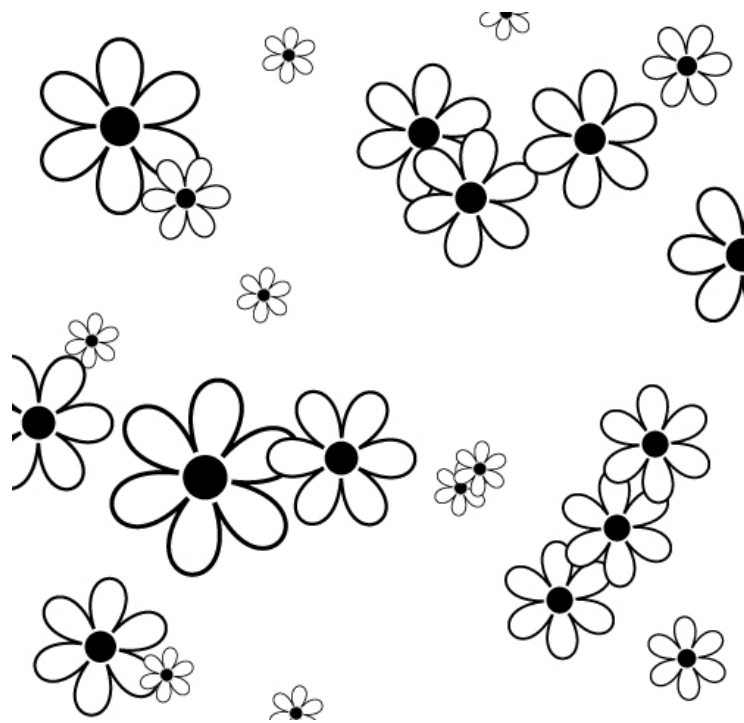
Brick repeats. Arranged like bricks in a wall, each unit of repeat is moved along by half a unit in every other row.



Dropped repeats. This is where the unit of repeat across the fabric has moved alignment by either a quarter, half or a third.



Multi directional OR Tossed OR Scattered repeats. A randomly arranged series of motifs that are not directly connected to each other and can be loosely or tightly spaced.



All images taken from <http://www.printmag.com/design-education/fabric-patterns-deconstructed/>

There are many more ways to arrange repeat patterns (diamond structures, triangle structures, the Swiss, ogee, stripe, spot, hexagon, scale and mirror repeats) which you can familiarise yourself with in the following publications:

Dyeing and Screen Printing on Textiles, Joanna Kinnersly Taylor
A&C Black Publishers
ISBN 978-11408124758

Repeat Patterns; A manual for Designers, Artists and Architects, Peter Phillips & Gillian Bunce
Thames & Hudson
ISBN 978-0500276877

Design and Practice for Printed Textiles, Andrea McNamara
Oxford University Press
ISBN 978-0195533712

Fabric Dyeing and Printing, Kate Wells
Conran Octopus Ltd
ISBN 978-1840911459

The area of your layout will be dependent upon what you are designing your repeat pattern for. The design should ideally repeat from selvedge to selvedge, which is especially important when producing work for furnishing designs as the fabric will often be joined at the selvedge to create wider widths. For example, if you have a fabric with a standard width of 120cm the following divisions of repeat could be used:

1 x 120cm

2 x 60cm

3 x 40 cm

4 x 30 cm

5 x 24 cm

6 x 20 cm

8 x 15 cm

10 x 12 cm

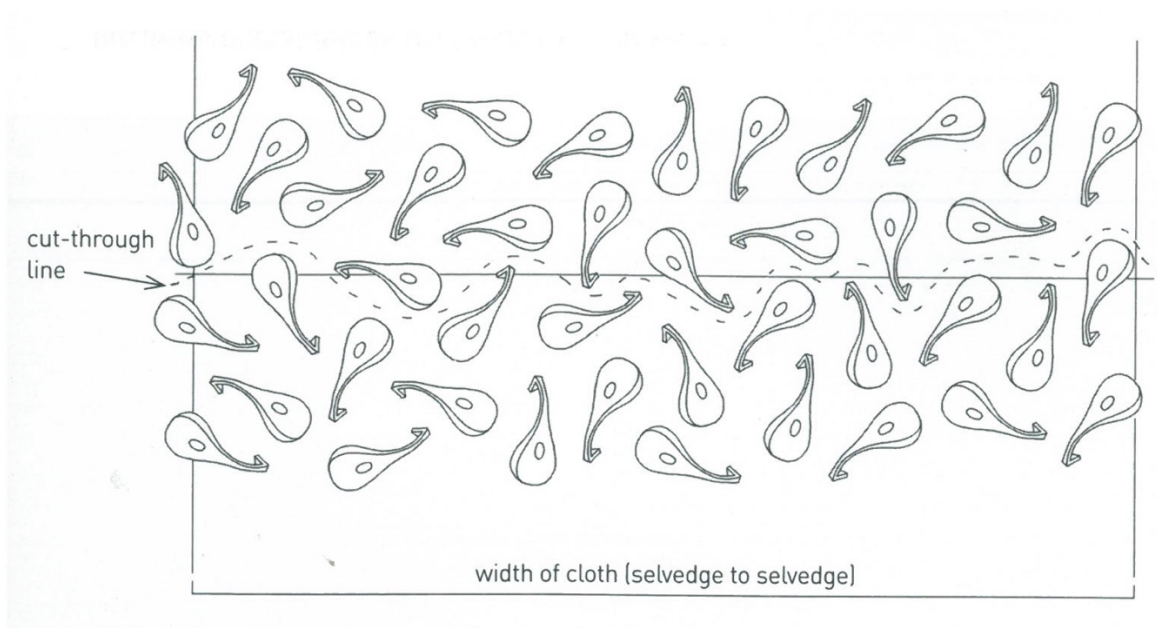
The downward repeat can be any size you like, but you need to take into consideration the end use of the cloth and any restriction of screen sizes during production.

Cut Through: Repeat pattern for screen

When creating a simple repeat for silk screen printing in the workshop we would ordinarily use the full width of the repeat, depending on its intended purpose, and cut through. This hand rendered way of constructing your design enables you to consider the scale, composition and spacing of the motifs within your repeat pattern.

The design for the repeat is developed across the full width of the paper or cloth and mapped onto a drafting grid. Ideally your drafting grid should be slightly wider and longer than the depth of your repeat tile, with a horizontal cut through line marked through the centre of the grid. If you are tiling graph papers together to help arrange your drafting grid, be sure to tape the edges together accurately.

Arrange the drafting grid with your motifs running centrally along the cut through line, taking into consideration scale, composition and avoiding tram lines where possible. When marking your cut through you are looking for the clearest path along your horizontal marked line, trying to avoid cutting into motifs but allowing yourself to cut carefully around them where possible. When you are confident that you have mapped the best path for your cut through, carefully trim along the line using scissors or a scalpel.





The two pieces are now swapped over and reattached, using the grid to ensure a straight match along the new join. If you would like to close any gaps, to keep the unit of repeat a little smaller, now is the time.

Infill any remaining spaces, along the new join, with more motifs from your design. At this stage you can also add in registration crosshairs, at each end on both selvedge's, which will help you match your repeat pattern when printing.



Images taken from: Dying and Screen Printing on Textiles by Joanna Kinnersly_Taylor