

Shield Instructions – Fabric Considerations and Step by Step Instructions

Fabric choices and preparation:

Things to consider when gathering supplies to make shields:

- Use cheerful and colorful fabrics which will disguise stains. Choose **appropriate fabric** - see **guidelines at end of this document**. The shield & pockets may be made all of the same fabric, or the pockets may be done in a co-ordinating fabric.
- **Fabric must be 100% woven cotton** (commonly called quilter's cotton). **Thread must be 100% polyester**. Use needle type 'Sharps' or 'Microtex' in size **80/12** for ease of sewing through the combined layers of PUL and cotton. These needles make a HUGE difference in ease of sewing.
- **Wash&dry** the cotton fabric before cutting. Do not use fabric softeners or dryer sheets.
- The **waterproof layer** must be PUL, polyurethane laminate fabric, which is waterproof, breathable and non-toxic. This is the only acceptable material for the waterproof layer. Do not pre-wash PUL.
- The **shield pattern** can be downloaded from the website, daysforgirls.org on the Patterns and Instructions page. Instructions for creating the full-size pattern are on the pattern sheet.
- The pattern identifies where the pockets are located; these are the **pocket ends**. The other two sides are called the **wings**; this is where the snaps will be put on.
- When edge-stitching, use matching or darker thread; avoid white and light colors.
- In planning, **avoid designing kits with 'all matching pieces'**. Kits are assembled with items received from many sources and it is not possible to ensure each and every kit consists of 'matched components'. To keep things equitable for all girls receiving kits, we avoid giving any girl(s) a 'matched set' when others in her group will be receiving an eclectic mix. Each piece should be feminine and beautiful even though the kit as a whole is not a matched set.
- Sewing tools needed to make a shield: sewing machine with straight stitch, steam iron, large sewing scissor and/or rotary cutter
- Fabric pieces needed to make a shield: two cotton shields, one PUL shield, and two cotton pockets - all cut per pattern specifications

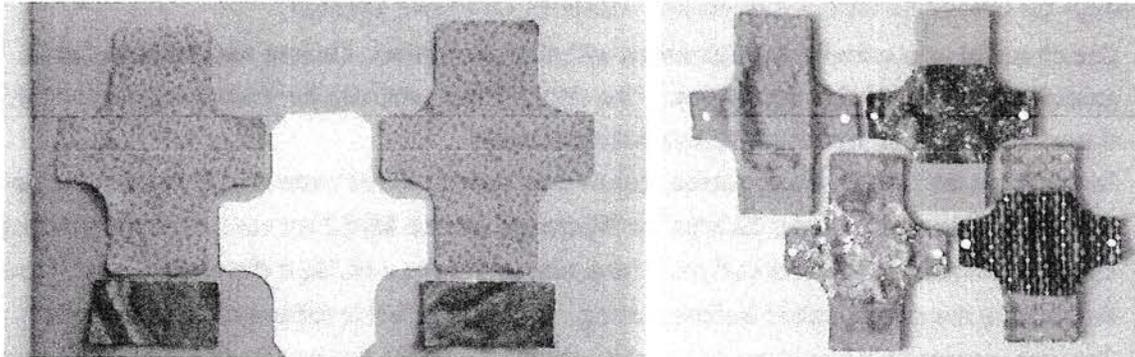
How to make the pockets:

- Option One – cut each pocket individually, 4 ¼ x 5 inch (10.8 x 12.7 cm) piece of cotton fabric. Fold in half to 4 ¼ x 2 ½ inches (10.8 x 6.35 cm). Sew a line of stitching along the fold to add strength to the fold; place the stitches approx. ¼ inch (0.64 cm) from the fold.
- Option Two – the speed method. Cut a strip of fabric 5 inches (12.7 cm) wide by any length. If you cut across a piece of quilter's cotton, the strip will be 5 x 44" (12.7 x 112 cm). Fold in half lengthwise yielding a doubled piece measuring 2 ½ x 44" (6.35 x 112 cm). Sew a line of stitching along the fold (approx. ¼ inch from fold); this will strengthen the edge of the pocket. Then cut the strip into 4 ½ inch pieces (10.8 cm). Each piece is one pocket measuring 4 ½ x 2 ½ inches (11.5 x 6.35 cm). The pocket width of 4 ½ inches (11.5 cm) is slightly larger than the shield width – this is intentional – the slightly wider pocket ensures it is securely sewn into the seam. Excess width will be trimmed off during shield construction.

Cut pieces to make a shield:

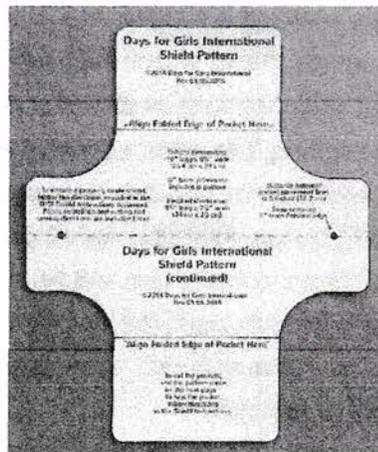
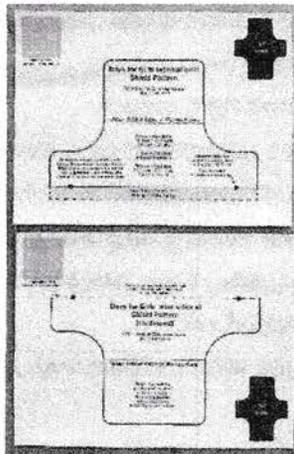
2 cotton, 1 PUL, 2 cotton pockets

Shield samples, completed:



Shield pattern as printed:

After matching the dots & taping two halves together:



Waterproof layer

PUL

(Poly Urethane Laminate fabric)

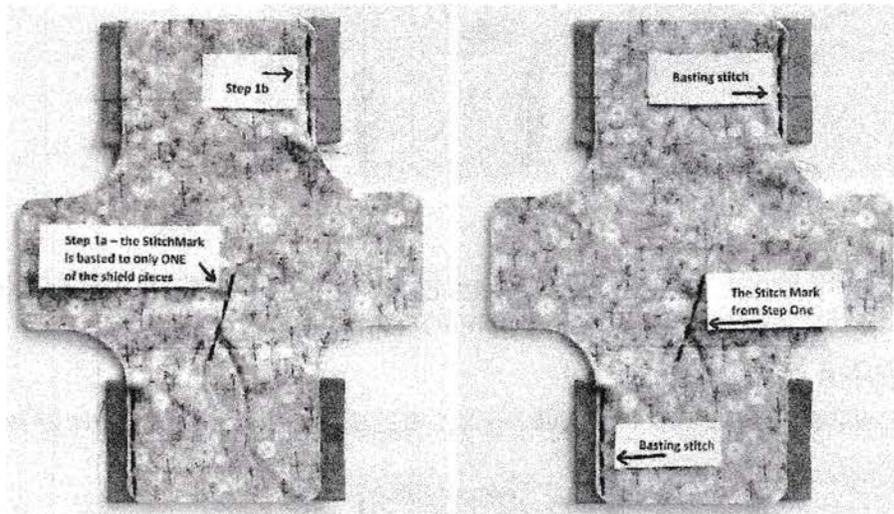
- Washable
- Breathable
- Non-toxic

Step-by-step instructions to make a shield.

- 1) Start with: two cotton pockets and two cotton shield pieces; note needle recommendation on Page One.
 - a) MARK only one of the shield pieces with a few long basting stitches. From this point further, these stitches will be referred to as "TheStitchMark"; note it is a series of stitches and not a mark of ink. When finished, these stitches will be on the bottom side of the shield; however, as you see in these instructions, the cotton piece with these stitches will be on top as you sew and progress through most of the following steps. Refer to pictures below.
 - b) Make two pockets per the instructions on Page One. Position two shield pieces 'right sides facing'; then insert a pocket between the shields, placing the fold-edge of the pocket towards the shield-center. Align the pocket with the flat end of the shield. BASTE along one of the pocket sides, as shown, basting within the ¼ inch seam allowance.

Similarly align the second pocket at the other end. Then baste along the pocket side, as shown.

This is called the "shield sandwich"



The method promoted here is a 'no pins' method for holding the pieces together while basting; the layers can be held together momentarily with PINch of fingers to hold the layers in place while basting the short sections along the edge of the pockets. If you feel you must use pins to keep the layers together, keep all pin insertions within the seam allowance. Do not poke holes into the main portion of the shield; doing so will poke holes into the PUL and compromise the waterproof barrier. Another option is to use quilter's clips such as Wonder Clips to hold the layers together while basting along the pocket edges. Best approach is to practice and perfect the PINch technique as it will save time; but if you must use a 'helper', clips are preferred over pins (clips are faster to use and do not poke holes).

2) Trim & Attach the PUL (a basting procedure)

Begin with: Shield Sandwich and a pre-cut PUL shield

Trim PUL: clip the corners of the PUL at all four 'pocket' corners, as shown

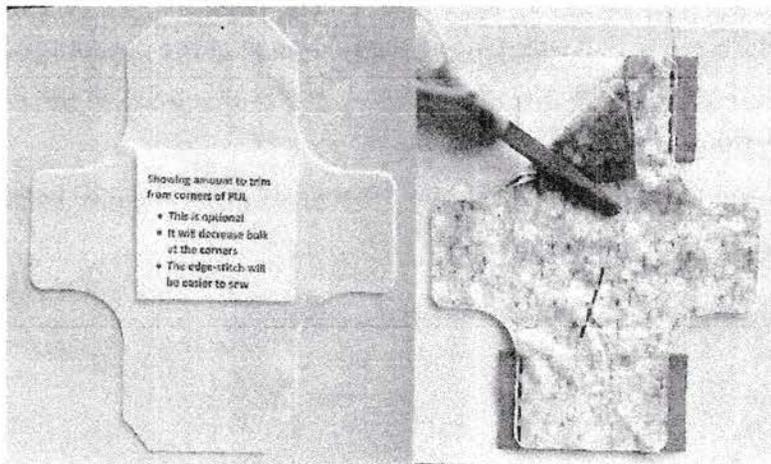
Layer: place PUL "Shiny side up", then put the shield sandwich on top of the PUL with the "TheStitchMark" showing on the top side

Clever tip: the S & S acronym will help you remember the layering sequence.

S&S = "Shiny up, StitchMark up"

Important: the PUL is the waterproof barrier; if inserted incorrectly it is less effective.

Baste: baste the PUL in place with basting stitches at the side seams only, sewing overtop the previous basting stitches. Keep basting stitches within the ¼ inch seam allowance.

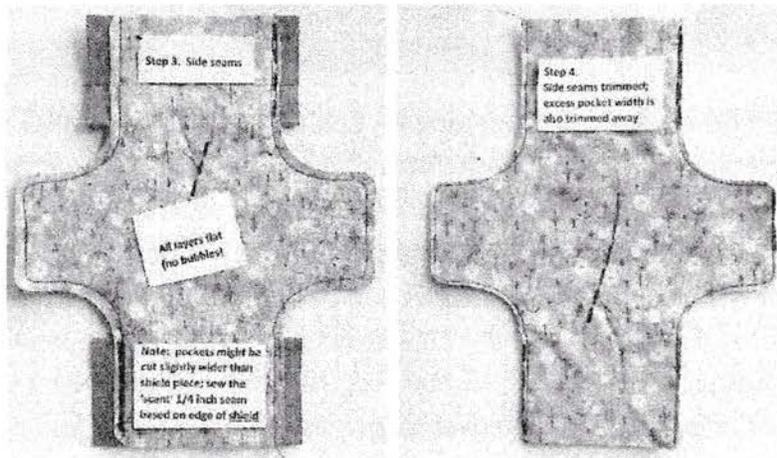


3) Sew Seams.

Sew ¼" seam as shown in picture below. Use stitch length 2.5 or 3.0mm. Sew down the length of each side, leaving both ends open. Keep all layers flat; there should be no bubbling between layers.

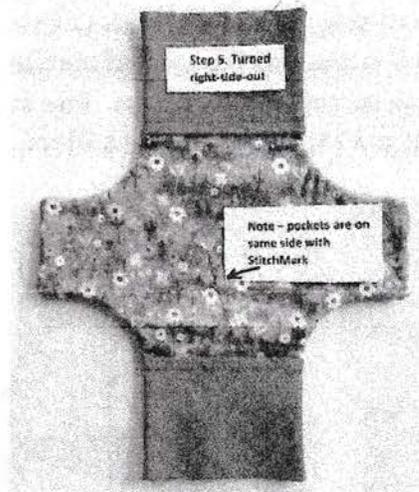
4) Trim the seam in the entire STITCHED area.

Do not trim in the openings. Trimming is most easily done with a larger sewing scissor or a small rotary cutter.



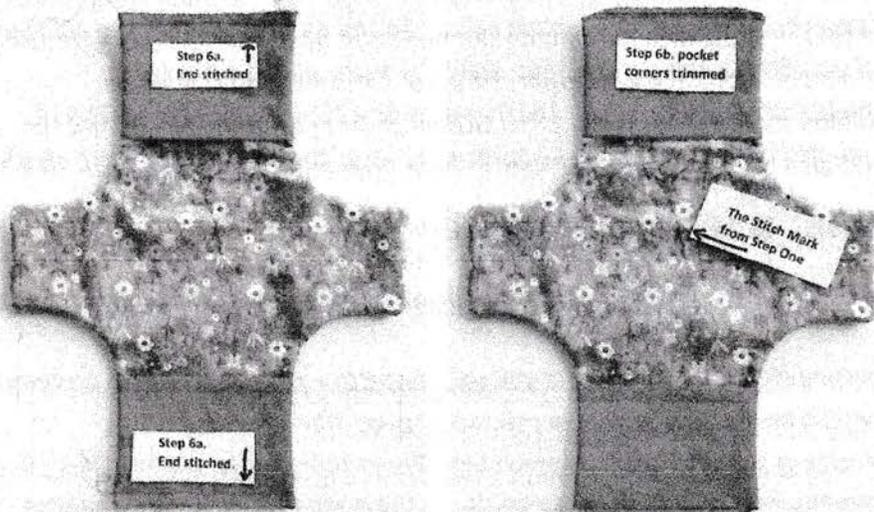
5) Turn and Press.

- TURN right-side-out. Use fingers to gently push out the rounded wings.
- FOLD the pockets to the bottom (the side of the shield with the "StitchMark" stitches). Gently spread the unstitched end as wide open as possible. You may find it helpful to use a piece of stiff cardboard as a template to keep the pocket as wide open and flat as possible during pressing (cardboard keeps fingers away from iron).
- PRESS accurately, giving it a professional appearance



6) Stitch and Trim

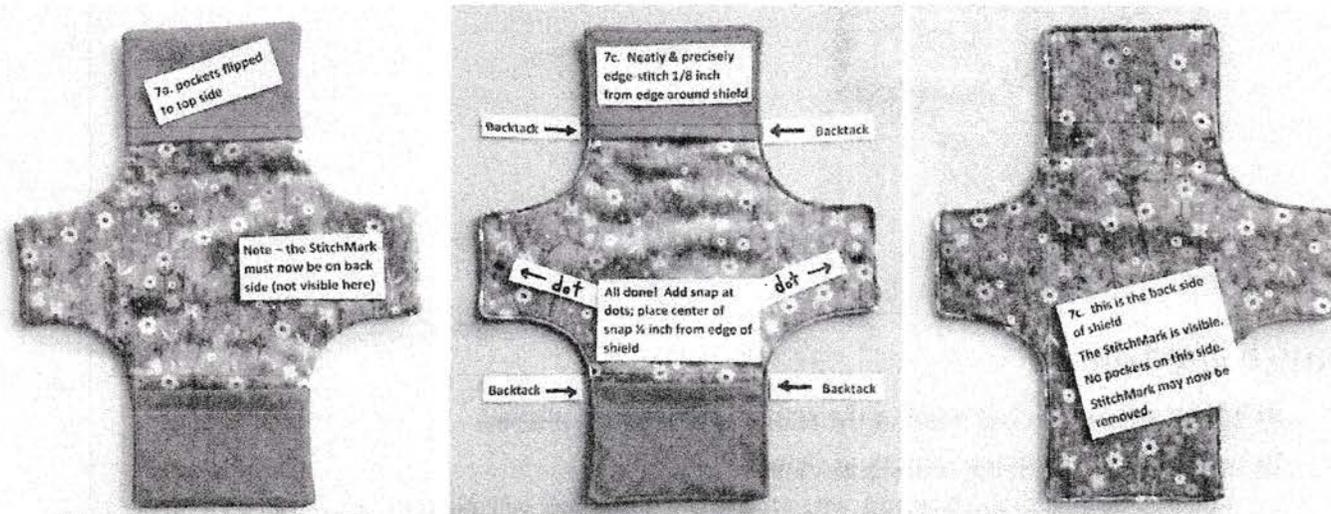
- STITCH across each end, keeping the ends as wide open as possible
- TRIM these seams at the corners, as shown.
Tapering decreases the bulk and, when the shield is finished, will minimize the thickness in these areas, giving the final garment a nicer appearance.



7) Turn, Press and Edge-stitch Flip pockets

- a) TURN both pockets to the TOP (the side of the shield without the "TheStitchMark"). Pictures below.
- b) PRESS accurately; giving it a professional appearance
- c) Check thread color for appropriate color for edge-stitching.

EDGE-STITCH all around, **stitching 1/8" from the edge**, keeping especially close to the edge all along the pocket. (The pocket opening must remain as wide as possible to allow for multiple liners to be inserted simultaneously). The finished width of the pocket should be 3 ½ inches, and the width of the opening should be 3 ¼ inches. Do an extra **back-tack** at the "fold edge" of each pocket. (picture below). Take out a ruler and measure the finished shield; it should measure 9 ½ inches long and 7 ¾ inches wide (24 x 20 cm).



- 8) The shield is now ready for the snap to be attached. Follow the instructions provided with the snapper. Snaps are centered 1/2 inch from finished edge of each wing (photos on Page Two). More information on the preferred KamSnaps can be found at DaysforGirls.org on the Sewing Resources page. If you do not have a snapper, Days for Girls will add the snaps.

Send the shields to: Days for Girls, 1610 Grover St B22, Lynden, WA 98264 US

Shields could also be sent to a DfG Chapter near you; contact them before sending.

Guidelines for proper selection of fabric:

- Use good quality 100% cotton woven fabric similar to quilter's cotton. No knits, flannels, corduroy, or home dec fabric.
- Pick **colorful** stain-busting fabrics, preferably botanicals, geometrics and batiks. Prints preferred.
- Fabrics and thread should be medium to dark in color to disguise stains
- Some prints are offensive or illegal in some communities. Prints with people, animals, faces and figures cannot be sent to Muslim communities. **NO** camouflage fabrics as these are illegal in many countries. Fabrics with food, bugs, reptiles, guns, knives, culture-specific themes as well as girly-glam should be avoided. Bugs, reptiles and animals are predators in some areas; fabrics including these are uncomfortable for the girls to wear and use. Butterflies are OK.

Days for Girls International Shield Pattern

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∨Align Folded Edge of Pocket Here∨

Pattern dimensions:
10" long x 8¹/₄" wide
(25.4 cm x 21 cm)

¹/₄" Seam Allowance
included in pattern

Finished shield size:
9¹/₂" long x 7³/₄" wide
(24 cm x 20 cm)

Distance between
pocket placement lines
is 5 inches (12.7 cm)

Snap centered
¹/₂" from finished edge

To ensure a properly made shield,
follow the directions provided in the
DfGI Shield Instructions document.
Fabric guidelines and cutting and
sewing directions are included there.

• ^Align Pattern Pieces Here^
Overlap Area for Taping

Shield Pattern (continued)

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^Align Folded Edge of Pocket Here^

To cut the pockets,
use the pattern piece
on the next page.
To sew the pocket,
follow directions
in the Shield Instructions.

Days for Girls International Pocket Pattern

**©2014 Days for Girls International
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∨Fold Here∨

**Cut pocket piece 5" x 4 ½"
To sew the pocket,
follow directions
in the Shield Instructions.**