



felt

26 PROJECTS FOR ALL FORMS OF FELTING

frenzy

heather brack and
shannon okey



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To my Mom, who did everything and still inspires everything I do.
—Heather

To my aunt, Pat Hardy, who makes everything she does into art,
not just her paintings, and my mom, who's just like her.
—Shannon



We couldn't have finished this book without the help of many wonderful friends and family members, among them Andi Moon Smith, who pinch-knitted for us more than once (all those swatchbar pieces? knitted by Andi); Kim Werker and Julie Holetz, for sharing their crochet knowledge; Susan Ensor, for keeping us company and relieving us on needlepunch duty while we made the green hat; Jana Stone, for thinking up and knitting the orange Bag of Many Pockets; Donna Pedaci, for being a friend and felting inspiration; Christine Okey (Shannon's mom), for doing much of the step-by-step photography and putting up with Shannon's type-A photo styling; Tamas Jakab, for working his Photoshop mojo; Jay Brack (Heather's dad) for never complaining about the yarn rats in the washing machine; Kim and Megan Brack (Heather's sisters) for field testing many of the patterns in this book; Bethany Banet and Chrissy Schwen, for helping in the best ways nonknitters know how; Susan Druding of Crystal Palace Yarns, for her fantastic yarn and all her inspiration; Jonelle Raffino of South West Trading Company, whose felted Karaoke sample at a 2005 TNNA show inspired our Karaoke wrap pattern; Matt Waldrup and Rob Matyska of Threadbear Fiber Arts, for keeping deep stock of every single color of Cascade 220 and encouraging Heather's early design efforts; Linda Diak of Grafton Fiber, for many gorgeous batts; Shannon's cats, who like to steal yarn and provide comic relief; and our dogs—Anezka, who occasionally stopped barking while we worked on the book, and Frankie, who ate too much of the wool floating around and coughed up felt, inadvertently creating a whole new technique. (Don't expect a chapter on *that*, though.)

All photos this page by Christine Okey

Acknowledgments 3
Foreword 6

*Introduction
to Felting 8*

★ *Chapter One:
Knit and Felt 18*

Trapezoid Bag 24
Cloche Hat 28
Bag of Many Pockets 32
Mod Knitting Bag 36
Messenger Bag 40
Urchin Bag 44
Urchin Hat 48
Short-row Slippers 50
Newsie 54
Karaoke Wrap 58
Design Ideas 61

★ *Chapter Two:
Wet Felting 62*

Balls and Beads 64
Sheepy Scrubbing Soap 66
Snuggle Scarf 68
Nuno Felt Wrap 72
Nuno Felt Skirt 75
Design Ideas 76



Chapter Three: **Needle Felting* 78

Monogrammed Bag 80

Bermuda Bag 84

Daisy and Lily Flowers 88

Flapper Hat 92

Maki Pincushion 96

Wool Shoes 98

Design Ideas 100

Chapter Four: **Recycled Felt* 102

Embroidered Felted

Needle Case 104

Stained Glass Sweater Pillow 106

Camera Case 108

French Press Cozy 110

Patchwork Felted Jacket 114

Design Ideas 119

Abbreviations 120

Glossary 121

Resources 126

Index 128





Foreword, or How We Got Started Felting

Heather's story:

When I first got into knitting, I wanted to make something I could use absolutely every day. A thick wool sweater that I can comfortably wear for a few months of the year is all well and good, but I wanted to make myself something that would be as useful in August as in January—something like the small black messenger bag that never left my side at the time. When I saw a felt-tote bag at a nearby yarn store, it clicked immediately. I had to know how to do that, and I hatched plans for the perfect gray felt messenger bag.

It was not only my first felted project, but also the first thing I ever knitted without a pattern. Of course, nearly everything went wrong, from the pushy yarnista at the store chiding me for my dull choice of colors and convincing me to knit the bag in shades of heathered purple, to the final bag ending up even smaller than my original plan.

I don't think I've ever carried that bag out of the house, but I was in love with the process of turning fiber into felt.

There are many ways to take fiber or yarn and turn it into a fabric, but feltmaking is the most magical. When you look at knitted fabric, you can see each stitch, you can see the yarn, and you can see the fibers twisted to make the yarn. And when you look at a woven fabric, from your bed linens to an antique tapestry, you can see a warp and a weft, and up close you can pick out the threads that compose each. But when you look at felt, you just see . . . felt. The fibers are connected at a microscopic level, so you can't see or feel how the fabric is made. Even when you know exactly how and why the process works, as you watch the fabric change in your own hands, it remains slightly mysterious.



Shannon's felty fairytale:

Once upon a time, there was a girl who was very, very bad at laundry. When we say "bad," we mean "throws everything in the washer at once, no matter the color or material." But then she discovered that all the sweaters she'd ruined, then hoarded (you see, she was also very fond of keeping small bits of fabric, yarn, and buttons tucked away for years on end), could be reborn as beautiful, functional items through the magic of recycled felt.

Okay, enough fairy tales for one day. That girl is me. And I am bad at laundry, though I prefer to think of myself as "water-thrifty." It was a revelation, though, when I figured out how to turn all my laundry mistakes into felting triumphs. You'll see some of the items I like to make later in the book, although these days I'm much more likely to be shrinking wool on purpose than by accident.



introduction to felting

What is felting?

Felting, at its simplest, is an art and a science, the process of deliberately tangling and shrinking wool or other animal fibers. It's as simple as that, but the possibilities of this very simple process are almost limitless. Felt can be hard and solid or soft and airy. It can be flat and formless or curvy and sculptural. It can be made of utilitarian wool or incorporate luxurious angora and silk, curly mohair locks, ribbons, beads you name it.

How fiber becomes felt

Understanding how fiber becomes felt is the first step toward realizing how many options you have with these versatile techniques. Although most of the information presented here applies to other animal fibers, such as alpaca and llama, we'll refer mainly to wool since it's most common.

All protein animal fibers, from sheep or alpaca fleece to angora, dog fur, and even human hair, share the properties that make them feltable. The mats that you might comb out of your dog or cat's coat are basically felt, and if you've ever wondered how human hair forms dreadlocks, you've pondered a process much like felting.

Animal fibers have an outer layer of overlapping "shingles" called the cuticle.

When it's subjected to heat and moisture, the core of the fiber expands, causing the cuticle to lift and open up. When it's cooled, it contracts and smooths out.

Most of the time, felting is undesirable, so you may use special, gentle products to wash woolen knits. Like the conditioner you use on your hair, many wool washes contain oils or polymers that form a protective coating to glue down the cuticle and make each strand smooth and shiny. Sheep make their own conditioner, lanolin, which coats their wool to protect them from moisture and heat.

Despite these similarities, though, not all animal fibers felt equally well. The coarse cuticle on wool fibers tangles much more easily than the thin, smooth cuticle on human hair. Some fibers also have a naturally occurring crimp, like the little zigzag waves you can make in your hair with a crimping iron. The crimp facilitates felting because the fibers move in different directions and catch on each other more easily. In general, fine, crimpy wools like merino are better for felting than coarse, hairy wools like Lincoln. The special qualities of fleece vary between breeds, and even from one individual animal to another, so we'll discuss in detail how to choose fibers on page 11.



wool cuticle

Tools

Traditional felting methods start with clean fiber and very hot water. The heat and moisture make the cuticle open up and the rough edges tangle together into a thick mat. Shocking this mat in cold water causes the cuticle to contract quickly, locking the fibers into a solid fabric that can't be pulled apart. To encourage this process, you can apply friction to encourage the fibers to tangle together and use a little bit of alkaline laundry or dish soap, which acts on the fiber to help open up the cuticle. (Avoid any cleanser that advertises itself as "pH balanced.") The soap can also remove any oil that may remain in the wool.

There are a few basic tools you'll need to work with felt, many of which you may already use for knitting or sewing. You may also use household items in decidedly nontraditional ways. Let's review what you may encounter along the way in this book.

Sharp scissors or a rotary cutter and mat

A sharp pair of scissors or a rotary cutter is as basic to your felting toolbox as a screwdriver and hammer are to the traditional toolbox: You're not going to be able to do much without them. We recommend a large pair of shears and a small pair of thread snips. The shears should be sturdy and have a handle that's comfortable in your hand for cutting thick fabrics. The thread snips (you could substitute manicure scissors) should have a sharp point for punching through felt to cut holes. Rotary cutters, extremely sharp rolling blades that resemble pizza slicers, make cutting straight lines easy. Look for one with interchangeable blades—cutting



thick felt tends to wear them out faster than ordinary fabric. Rotary cutters are a favorite tool of quilters and are available at any fabric store. They're usually sold with a self-healing mat marked with grid lines for measuring. If your cutter doesn't come with one of these, make sure to grab one. If you cut on an ordinary table or countertop, not only will you damage the surface, but you'll also ruin the blade on the cutter. Once you've found good sharp scissors or a rotary cutter, never use them to cut paper, or you risk dulling the blades.



scissors, rotary cutters, and mat

Knitting or crochet basics—needles, hooks

For knitted-then-felted pieces, you can use any needles or hooks you like. Individual patterns will indicate the recommended needle size, but U.S. sizes 10½ and 13 (6.5 and 9.0 mm) are commonly used for felting projects. We'll discuss how needle size and gauge affect the felted fabric later in the book.



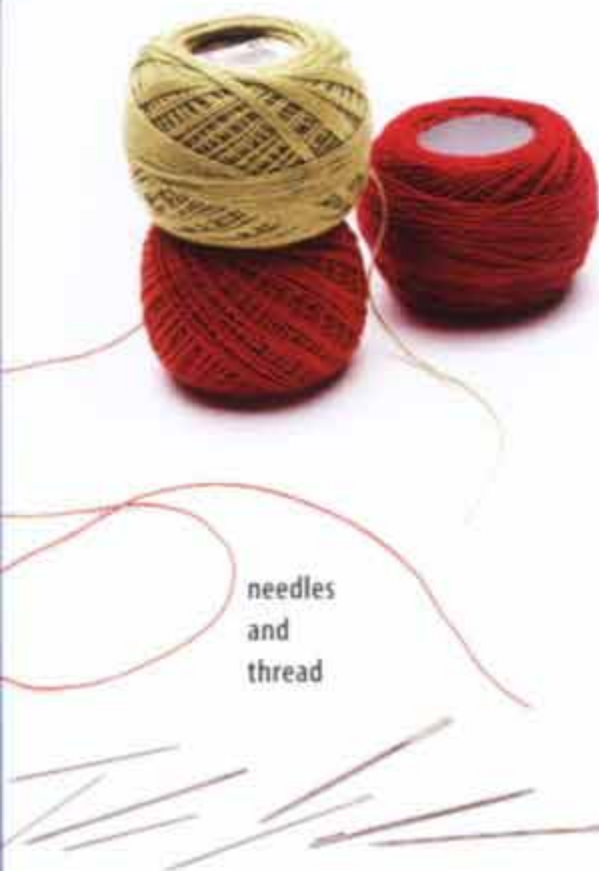
knitting needles and crochet hooks

Yarn or tapestry needles

If you're a knitter, you probably have blunt-tipped yarn needles in your bag to weave in ends and graft edges, but it helps to have big, sharp-tipped darning needles, too. Several of the projects here require sewing finished felt, and you'll need the super-sharp tip to push through the dense fabric. Curved upholstery needles can also be handy.



darning needle



needles
and
thread

Sewing needles and thread

Strong sewing needles and thread are a must when you need to join two pieces of felted fabric (as in the Patchwork Felted Jacket, page 114). Consider buying cotton “craft” or “carpet” thread if you’re sewing together pieces that will endure lots of stress, such as a bag bottom or handle. If you machine-sew, standard quilting thread should do the trick.

Washing machine with lint filter

The quickest and easiest ways to felt some items is to run them through one or more cycles with a hot wash and a cold rinse. A lint filter over the drain will help keep the loose wool fibers shed by the material from clogging your plumbing. (Lint filters, available in the laundry section of any supermarket, resemble metal scrubbing pads and will catch more fuzz than you can possibly imagine.) If you don’t have a washer, you may want to do your felting at a laundromat, or you can felt by hand.

Felting surfaces

Any textured surface can provide friction to speed the felting process.

If you’re just experimenting and don’t want to invest a lot of money in supplies yet, a piece of bubble wrap or pool liner is a good tool to start with. Just make sure the soap and water can reach all your fiber if you’re wrapping it in something nonporous; you may need to pre-wet.

Bamboo mats, in all sizes from sushi mats to window blinds, make great felting surfaces. They can be used flat, like a washboard, or you can lay out fiber on top of the mat and roll the whole thing up to felt it.

Felting boards, available from fiber arts

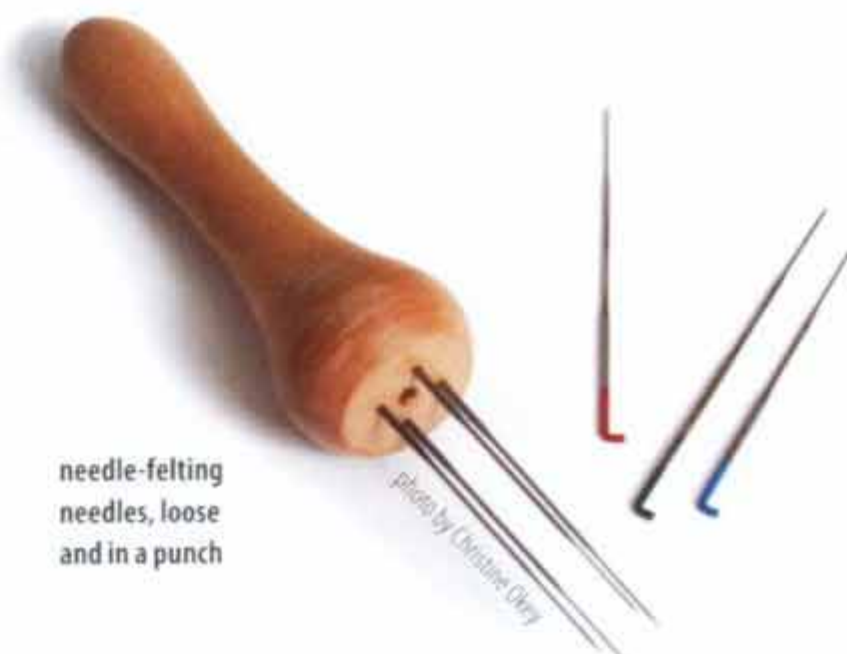
companies, are like regular washboards, but they have finer ridges and are often made of glass. They can be quite expensive. Washboards made out of corrugated metal with a wooden frame can be found at shops catering to the Amish and Mennonite communities, such as Lehman’s. (See the resource guide for details.) More modern washboards made of plastic are also available, but may be hard to find—try looking at an Asian grocery.

Needle-felting needles

Needle-felting needles come in various sizes and configurations. You can get plain needles singly or in sets and make or buy a handle if you find grasping the small needles uncomfortable. If you really like to needle-felt or you plan on needle-felting a large project, you can buy felting punches that hold between three and twenty needles arranged in a wooden or metal handle. It’s much easier to felt a large piece quickly when you’ve got multiple needles going at once, so most punches have the needles arranged in concentric circles. You can also find punches that hold the needles in a single line, for doing line work quickly.



wet-
felting
roll



needle-felting
needles, loose
and in a punch

Foam block

A thick, padded surface is essential for needle felting. If you buy your needle-felting tools in a kit, it will probably include some kind of foam block. If not, you can use upholstery foam (available at any fabric store) as a base for your needle-felting projects. You can also buy special hat forms and other shaped foam blocks, or we'll discuss how to make your own custom forms on page 96.



needle-felting
on a foam block

photo by Christine Olney

Fiber

Wool and other fibers

If you're starting with loose fiber, you may find you have a daunting variety of options available. Rare and single-breed wools are more commonly found as loose fiber than in yarns, so you may need to think about the special qualities of the particular breed of wool you're considering buying. A fine, crimpy wool like Merino, Corriedale, or Targhee will felt much better than a coarse, straight long wool like Lincoln. You don't have to be an expert on the breed to determine how it will felt—just look at the wool and feel it. How soft is it? Are the fibers fine and slightly wavy, or are they long and hairy-looking?

When you're looking at fiber blends, make sure you choose a blend that includes at least 50% wool. The other 50% can be anything, from acrylic to angora, but the 50%

wool content ensures that you'll get a good, solid felted fabric. Like most rules, there are exceptions—some people have success felting synthetic fiber blends with as little as 30% wool, and it is definitely possible to felt 100% alpaca—but, at least the first time you use it, think of anything with less than 50% wool content as an experiment.

Another term that you may hear when shopping for fiber is "staple length." This refers to the average length of a single unbroken fiber, which may depend on many factors, including the breed of the animal, how fast its wool or fleece grows, and how often it is sheared. Staple length is mainly of interest to spinners because it affects the spinning methods and types of yarn the fiber is suitable for, but there are some felting projects where it may be a consideration. For example, if you want to pull off lengths of a roving that are three to four inches long, that's just not possible if the staple length of your fiber is six or seven inches. To check the staple length of a fiber, just pinch a few fibers and pull them out to measure.



long, coarse wool and
fine, crimpy wool



dyed locks
of fiber

photo by Christine Olney

Fiber preparations

Fiber is available in many different forms. Any preparation can be used for felting, but depending on what kind of project you're doing, one may have advantages over another.

A **roving** is a long tube of machine-carded fiber. It can be very thin and light or quite dense. This is a good preparation to use when you need to wind the fiber into a ball or wrap it around a form. It can also be used to make flat sheets of felt, by pulling fiber off the end of the tube and laying it out in layers.

A **top** is like a roving with two subtle differences: Top should be made of only the longest fibers in a fleece, and it should be combed rather than carded. It's prepared this way for people who want to spin strong, smooth yarns, but that doesn't make any difference for felting. The only thing that might deter you from buying top is the price, as it is the most expensive preparation.

A **batt** is a sheet of carded fiber. Batts can come in many sizes and may be displayed spread flat or rolled into neat balls. This is a good preparation if you're creating thin sheets of felt, as virtually all you need to do is lay it out flat and start felting. Some batts are sold specifically labeled as "felting batts." The fiber in these is usually unsuitable for spinning. It may be from a second shearing that produced shorter fiber, but it is feltable, so buy it if you like it!

Sliver (pronounced "SLY-ver") is a preparation of long strips that have been pulled from the edge of a bat. You can work with it much like you would with a roving.

A **fiber blanket** is a special preparation that's made to fill quilts and comforters. It probably will felt if you really want it to, but it's the lowest quality wool available for sale.

A **fleece** is the unprepared wool from one animal. Depending on where you get it, a fleece may be washed and skirted to remove the vegetal matter and any matted or irredeemably dirty parts of the wool, or it may be bagged up directly off the sheep. Greasy fleece needs to be washed well, usually several times, before it is suitable for felting. (For more information on washing fleece, see Shannon's book *Spin to Knit*.)

If you're ever unsure whether a fiber will work for your project, ask the seller. They are usually quite knowledgeable and willing to help.

You can achieve many different effects by using blended fibers or combining different yarns. A silk-blend roving will make a strong felt with a luxurious shine. Plant fibers like lyocell (Tencel), flax, and linen will make a surface texture on finished felt. (Tencel stands out in particular, as it is quite shiny.)



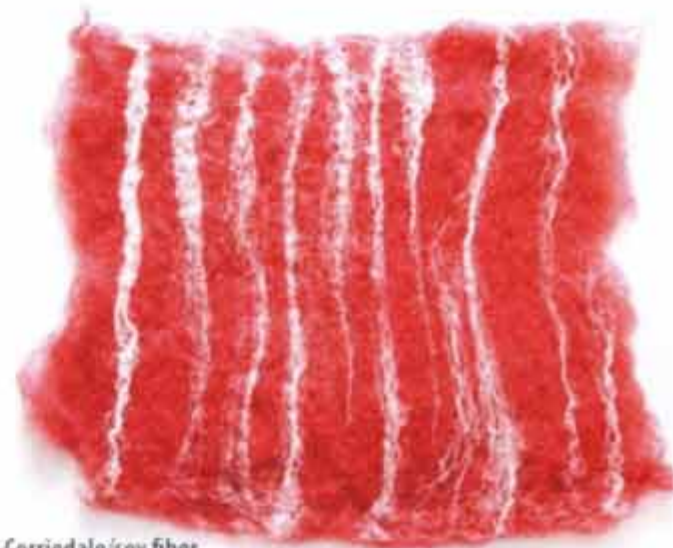
roving (wound into balls)



batts



merino/Tencel



Corriedale/soy fiber

Creating your own batts

Batts are made by blending fibers in a drumcarder. Carding straightens the wool or other fiber and aligns them in one direction. There are handheld carders that resemble paddle hairbrushes, except the “bristles” are small, sharp metal teeth. You use them by laying the fiber across one card and gently pulling the other card over it to pick the fiber and straighten it out, producing small clumps of wool called “rolags.” Drumcarders have teeth mounted on an electric or crank-powered drum, which pulls the fiber straight as it turns. It’s more efficient than the handheld version and can make a wide batt of blended fiber.

Yarn

The way a yarn is spun does not affect its feltability, but it can affect the texture of the finished felt. A 4-ply worsted-spun yarn can felt just as well and just as fast as a single ply. Yarns do have their own personalities, though, and that often shows itself in the texture of the felt. A smooth, plied 100% wool yarn will usually make a smooth felt. A thick-and-thin handspun yarn might felt with a curly, almost bouclé-like texture. A single-ply yarn might felt with a halo of fibers that aren’t fully incorporated, especially if it’s a blend with a fuzzy fiber like mohair or angora. For knitted felt, we recommend that you use a yarn that is at least 50% wool.

Superwash yarns are treated specifically to prevent felting in the wash, so it should go without saying that you need to avoid those for felting projects. However, bleaching can also strip some of the cuticle off of wool and prevent it from felting, so pure white and other very light colored yarn may not felt even if it isn’t superwash. Many manufacturers and

distributors will be able to provide you with information on any specific colors of their yarn that may not felt. Yarn reviews and forums on sites like knittersreview.com may also provide some information on felting properties. If all else fails, you can do some experimentation on your own before making a whole project with bright white, lemon yellow, or baby pink. To test “feltability,” you can knit a small swatch, or even roll a ball from a scrap of the yarn, and try to felt it in the sink by rubbing it between your palms.

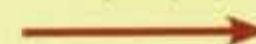
Combining fibers and yarns

You’ve chosen your yarn for a felting project and it’s at least 50% wool . . . so now you’re stuck using just that one yarn, right? Wrong! You can knit with any number of different “carry-alongs,” and they don’t even have to be wool. Some fade into the background, and some pop out from the surface.

Some eyelash and bobbled yarns are strung on a very thin nylon thread and effectively have no gauge of their own. Other novelty and fur yarns have a thicker strand and will affect the gauge of your piece if you don’t compensate for the extra bulk somehow. If you’ve selected a bulky novelty yarn, try knitting with one strand of worsted wool and one of novelty yarn instead of a double strand of wool.

Anatomy of a Swatchbar

The “swatchbars” on the following pages show forty combinations of black, charcoal, or gray wool yarns with carry-alongs ranging from fun fur and eyelash to multifiber and silk. Consult them to see what effects you can expect from different types of yarn, then choose a combo to suit your project.



1. Crystal Palace Kiddo

209 Citron Green
100% microfiber nylon
97 yd (89 m)/50 g

2. Crystal Palace Fling

3688 Dark Jade
95% nylon, 5% Lurex
130 yd (119 m)/50 g

3. Crystal Palace Little Flowers

9759 Iguana
66% rayon, 30% nylon, 4% metallic fiber
130 yd (119 m)/50 g

4. Cascade Pima Tencel

Color 7013
50% Pima cotton, 50% Tencel
109 yd (100 m)/50 g

5. Lion Brand Glitterspun

990-150 Silver
60% acrylic, 27% Cupro, 17% polyester
115 yd (105 m)/50 g

6. Crystal Palace Shag

7199 Pond
45% wool, 45% acrylic, 10% nylon
57 yd (52 m)/50 g

7. Cascade Bobble

Color 217
100% nylon
67 yd (61 m)/25 yd

8. Crystal Palace Party

414 Violets
100% nylon
87 yd (80 m)/50 g

9. Crystal Palace Kiddo

413 Nasturtiums
100% microfiber nylon
97 yd (89 m)/50 g

10. Crystal Palace Party

416 Tulip
100% nylon
87 yd (80 m)/50 g

11. Knit Picks Vacation

23563 Melon
35% Tactel, 35% nylon, 18% cotton, 12% acrylic
82 yd (75 m)/50 g

12. Crystal Palace Dragon Fly

9605 Tulips
70% polyester, 30% nylon
44 yd (40 m)/50 g

13. Crystal Palace Choo-Choo

4653 Sangria-Rose
52% rayon, 30% polyester, 18% nylon
92 yd (84 m)/50 g

14. Crystal Palace Nubbles

403 Fall Herbs
90% wool, 10% nylon
28 yd (26 m)/50 g

15. Crystal Palace Dragon Fly

4513 Violet-Rose
70% polyester, 30% nylon
44 yd (40 m)/50 g

16. Cascade Jazz

Color 314
100% wool
54 yd (49 m)/100 g

17. Dalegarn Pelican

Color 1843
72% polyamid, 25% tactel, 3% Lurex
66 yd (60 m)/50 g

18. Crystal Palace Poof

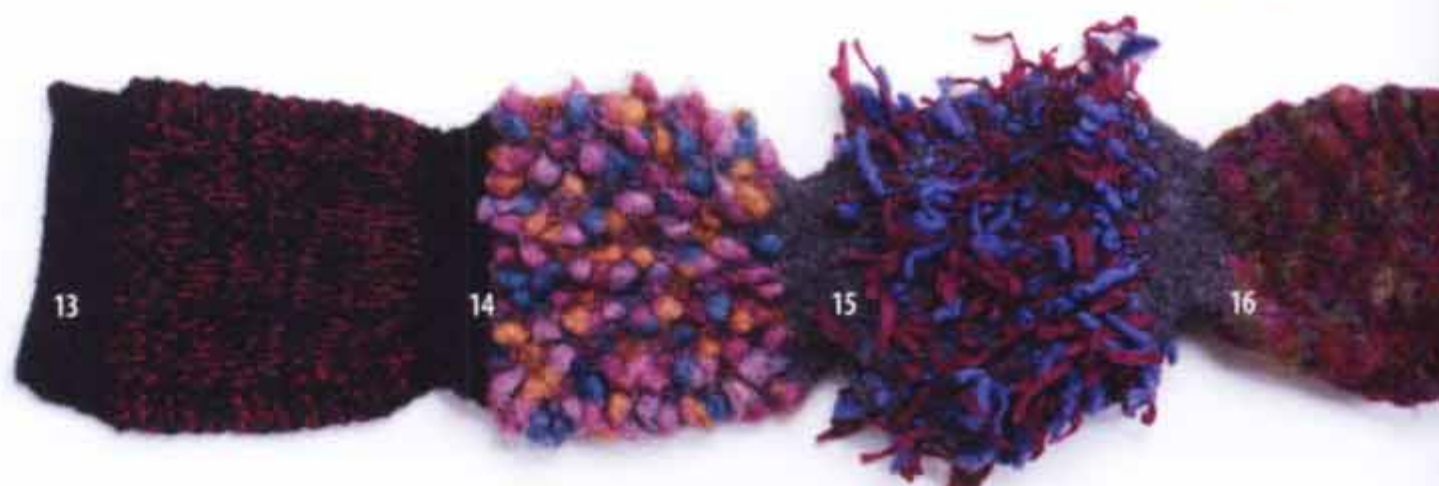
9650 Strawberry Soda
100% microfiber
47 yd (43 m)/50 g

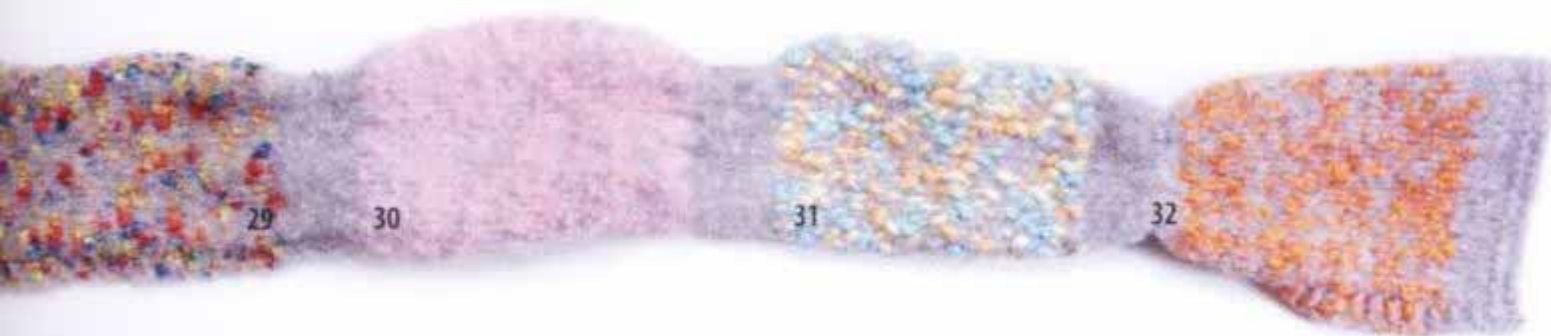
19. Sensations Angel Hair

#231 Purple
22% wool, 50% acrylic, 28% nylon
120 yd (110 m)/100 g

20. Crystal Palace Nubbles

405 Tulip Petals
90% wool, 10% nylon
28 yd (26 m)/50 g





21. Lion Brand Suede

178 Teal
100% polyester
122 yd (110 m)/85 g

22. Crystal Palace Fizz

Stardust
3731 Evergreen
86% polyester, 14% Lurex
120 yd (110 m)/50 g

23. Crystal Palace Labrador

9581 Ultramarine
100% wool
90 yd (82 m)/100 g

24. Crystal Palace

Choo-Choo
4655 Lichen-Gold
52% rayon, 30% polyester,
18% nylon
92 yd (84 m)/50 g

25. Crystal Palace Poof

9433 Circus
100% microfiber
47 yd (43 m)/50 g

26. Lion Brand Moonlight

Mohair
207 Coral Reef
35% mohair, 30% acrylic,
25% cotton, 10% polyester
metallic
82 yd (75 m)/50 g

27. Lion Brand Incredible

201 Rainbow
100% nylon
110 yd (100 m)/50 g

28. Cascade Lapin

Color 6187
100% nylon
16 yd (15 m)/50 g

29. Knit Picks Sparkles

23583 Sunset
100% nylon
159 yd (145 m)/50 g

30. Crystal Palace Iceland

4891 Strawberry Pink
100% wool
109 yd (100 m)/100 g

31. Knit Picks Get Away

23574 Rafting
35% Tactel, 35% nylon, 18%
cotton, 12% acrylic
82 yd (75 m)/50 g

32. Cascade Pearls

Color 4425
55.7% cotton, 44.8% viscose
130 yd (119 m)/50 g

33. Crystal Palace Tingle

9110 Eggplant Tweed
100% polyester
45 yd (41 m)/50 g

34. Mango Moon

Recycled Silk
no dye lot
100% silk
150 yd (137 m)/skein

35. Crystal Palace Fling

9494 Roses
95% nylon, 5% Lurex
130 yd (119 m)/50 g

36. Cascade Bobble

Color 214
100% nylon
67 yd (61 m)/25 yd

37. Crystal Palace Splash

3386 Berry
100% polyester
85 yd (78 m)/100 g

38. Crystal Palace

Musique
9772 Pink Lady
45% acrylic, 40% wool, 15%
cotton
65 yd (59 m)/50 g

39. Cascade Dolly

Color 12
50% cotton, 47% acrylic, 3%
nylon
53 yd (49 m)/50 g

40. Crystal Palace Dragon

Fly
9601B Peony Pinks
70% polyester, 30% nylon
44 yd (40 m)/50 g

Major felting techniques

As you've probably guessed by now, this is not your ordinary felting book. We're not only demonstrating patterns that use the popular knit-then-shrink method, but also needle felting and wet felting, as well as our own special take on recycled felting. There are fiber artists who work exclusively in each of these methods, and each has its own section of the book, but that doesn't mean we think these processes should be kept separate. We want you to make a better finished project by needle-felting a design onto a hat or a bag, or smoothing the finish of a needle-felted flower by wet felting the surface, or knitting the sleeves onto a recycled felt jacket. In each chapter we've also included Design Ideas that aren't tied to any particular project, but are meant to give you a creative boost. These Design Ideas use unconventional materials (like grommets!) or suggest ways to integrate handmade felt into other fiber arts, from embroidery to shibori.



slippers made with knitted felting



scarf made with wet felting

Felted knits

The advantage to felting a knitted piece rather than fiber is that the shaping is all done in the knitting, so this is a great process to make three dimensional items like bags and hats. Shapes like the Newsie on page 54 would require you to make several separate pieces and sew them together if you were felting fiber but would also be too floppy to shape by handknitting alone. Combining knitting and felting gives you the best of both techniques.

Usually, the knitting is done on big needles to give the stitches room to move around and felt into each other. You can control the felted fabric's thickness and drape (or lack thereof) by adjusting the yarn weight and needle size. The fastest and simplest way to felt a handknit is to run it through one or more hot/cold cycles in a washing machine, but if you don't have access to a machine, or want even more control over your finished product, you can also do it by hand.

Wet felting

The most traditional way of making felt is to layer wool fibers, wet them, and felt them with patience and elbow grease. This method makes wonderful thick, cushy, and super-warm fabrics. You can use the felt as is to make simple pieces like scarves and wraps or cut and sew it like you would any other heavy fabric. Simple shapes like balls, bowls, and hats are also relatively easy to make by wet felting. You'll also find directions to make thinner, stronger felt by using a woven fabric base.



shoes embellished with needle-felting



handbag created from recycled sweater

Needle felting

Unlike the other techniques in this book, needle felting doesn't use soap and water to help the fiber felt. Instead, this is a mechanical process where the fibers are permanently entangled by jabbing them with a thin, barbed needle. Because this process doesn't use water and doesn't rely as much on the felting properties of the fiber, it opens up new options for materials and projects. For example, you can needle-felt wool or yarn onto a woven or knit fabric, like a T-shirt or a towel. Or you can do the opposite and use needle felting to attach ribbons or lace to a felted fabric. You can needle-felt fibers that would never otherwise be feltable, and even create three-dimensional fiber sculptures.

Recycled felting

Anyone who wears wool has probably had at least one accident where a beloved sweater came out of the laundry felted and shrunken down to toddler size. If you thought that sweater was ruined, maybe now is the time to reconsider. Recycled felting encompasses everything you can do to knitted fabrics, such as thrift store sweaters. We'll show you how to manipulate these fabrics both before and after felting using everything from embroidery to dyeing to quilting techniques. Used sweaters, our favorite resource, are not only cheap—you can find them for less than the cost of one skein of yarn at thrift stores or in the back of your closet for free—but also environmentally friendly. Bringing these poor abandoned knits back to life is good karma and guarantees that your projects are truly one of a kind.



photo by Christine Okey

Chapter One



Knit and Felt



If you already know how to knit and do laundry, you probably have all the skills and supplies you need to start making felt. The projects in this chapter are knitted first, then felted with a cycle in the washing machine. Technically, this is fulling, a process of shrinking and stiffening the existing fabric. No matter what you call it, you still end up with a fabulous felty project in the end.

Washing machine felting—on purpose

To felt any item in a washing machine, set it to hot wash and cold rinse with a fast spin cycle. A small amount of detergent or soap can speed the process. This is not the time to use specially formulated wool washes like Eucalan. Just this once, you don't want to treat the wool gently and lovingly. To make felt, you want to abuse the fiber by scouring it with the same harsh soap you use to degrease stubborn dishes. Just make sure to use concentrated soaps sparingly, or your laundry room may flood with bubbles! Some yarns contain some natural lanolin, and others are coated with a very light oil or wax to make them easier to handle; any of these should be washed out before felting.

Depending on the machine, water temperature, yarn, and personal preference, it may take anywhere from 10 to 40 minutes for the fabric to felt and shrink to your satisfaction. Assuming you have a top-loading washing machine, you should check the progress every five minutes, especially if you've never felted anything before or are unfamiliar with the machine you're using. Pull it all the way out of the machine and squeeze out the water to really see the fabric. How will you know if it looks ready? The individual stitches will lose almost all definition, blending into a smooth surface. If it doesn't shrink adequately after one cycle, you may want to put it through another. Lather, rinse, repeat as needed.

If you have a front-loading washing machine, which is increasingly common with space-efficient models, you can still use it to felt your projects. In fact, some people say the tumbling motion actually



Helpful hints

- Any section of a project where you carry along a nonfelting yarn—like a fun fur or railroad yarn—will likely take longer to felt and may never felt as completely as wool alone.
- The ride through the washing machine, while essential, can stretch out loose edges. The open end of a bag or the corners of a flat piece can get caught on or around something else in the washer and pulled out of shape. There are two ways to avoid this. First, you can finish projects with applied I-cord, which makes a firmer edge. If that's too involved, use kitchen cotton to quickly sew any loose edge to the main body of the piece and then cut the cotton out after felting.
- If a stubborn item refuses to start shrinking, try shocking it back and forth a few times between very hot and very cold water. This will help the cuticle of the fiber open up. Sometimes you also speed up the process by felting multiple items together so they jostle against each other in the wash or by throwing in an old pair of jeans. The chance of separate items felting together are low unless you overload the machine, because they will constantly be moving and no two surfaces will have much chance to really felt into each other.
- Never, ever put items for felting in the washing machine with your soft, fluffy towels. The explosion of fuzzy lint could ruin everything in the load. If you forget, a hairbrush or lint roller will sometimes remove the lint . . . emphasis on "sometimes."

felts faster than the side-to-side swishing of a top-loading machine. The problem is that because you can't open the door to check on your felt without draining the washer, you sacrifice some control. Just make sure to set the machine for the smallest size load and run it in short cycles until you're familiar enough with the results you get from your particular machine to let it run unsupervised.

If you don't have a washing machine at all, you can still make the projects in this chapter! Consider having a party to

Warning!

Felting is not necessarily a use that your washing machine is meant for, and some machines are easily damaged by loose fibers clogging drains or jamming pumps. To minimize damage to the washer and plumbing, periodically skim out any loose fibers, and if your washer drains into a laundry sink, buy a lint trap for the hose. You can also felt items inside a pillowcase or zippered lingerie bag to contain any loose fibers. As long as you're careful, you can avoid unwanted visits from the plumber or appliance repair people.

felt and finish your projects with some friends at the house of someone who does have a machine. If you're feeling brave or have a good relationship with the attendant at your laundromat, there's no reason you can't use the machines there—though it could get expensive if you have to run multiple cycles.

No washing machine?

If worse comes to worse, any of these patterns can also be felted by hand. Fill a big sink or washtub with the hottest water you can stand (rubber gloves help!), add some soap, and start scrubbing. Ball up your piece of knitting, then mash and roll it around. Use a felting board or a regular washboard

to rough it up. If you're working on a felt project with children, wet it thoroughly with hot, soapy water and seal it up in a heavy-duty storage bag, then send the kids outside to mash and squash the bag. You may be surprised how well these alternative methods work.

Gauge and felting

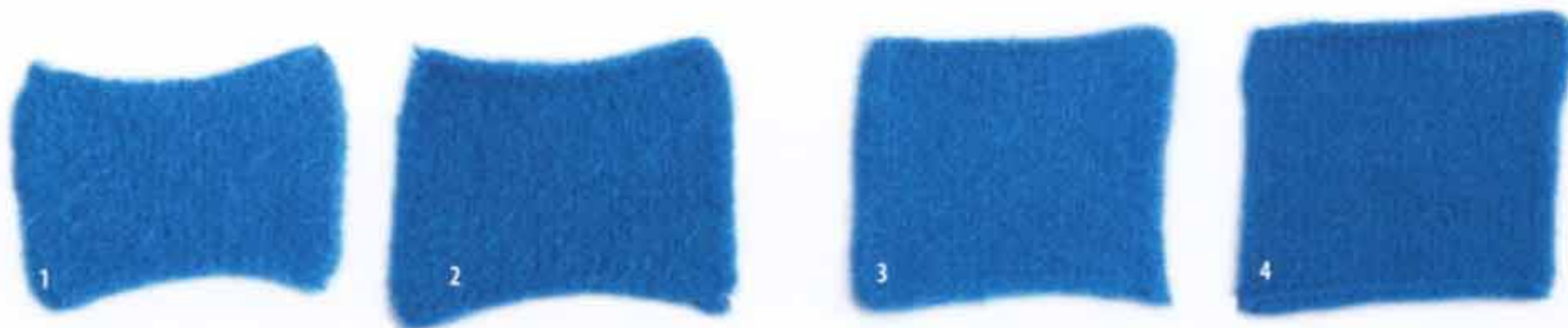
When you knit, you usually start by making a swatch to check that the number of stitches and rows per inch of your work matches the gauge given in a pattern. When you plan on felting the finished product, swatching is equally important but in a different way. Because felt shrinks, sometimes drastically, you should be more concerned with the dimensions of the piece than the number of stitches in an inch. Unless the directions tell you otherwise, all the projects in this section are meant to be felted hard. This means that they're ready to



Above, four 7"×7" knitted swatches before felting

1: knitted on size 15 needles, 2: knitted on size 13 needles, 3: knitted on size 10½ needles, 4: knitted on size 8 needles

Below, the same swatches after felting



block when the fabric is thick and somewhat stiff; in most cases the individual stitches will be almost completely indistinguishable. To achieve this result, you can expect some items to shrink up to 60% lengthwise and 20% in width.

The shrinkage percentage will vary by yarn type, fiber composition, brand, and even color. This is why it's important to felt a sample gauge swatch that is at least 6 by 6 inches before starting on a larger project, particularly if you are substituting yarns. Make note of the swatch's original unstretched dimensions as well as the number of stitches and rows, then felt it and compare the finished measurements. If the differences are comparable to the unfelted and felted measurements given for the pattern you're starting, you're all set. Otherwise, you may need to consider adding or subtracting a few rows or stitches to get a more desirable result with your yarn. Careful measurements at this stage can prevent you from ending up with a doll-size hat or a purse that's big enough to pack for a week's vacation.

The gauge of the knitting also affects the degree of shrinkage in the felted piece. A tightly knit fabric will shrink less than a swatch of the same yarn knit on oversize needles, but make a thinner fabric. The swatches pictured at left were knitted to the same dimensions with bulky weight wool on size 8, 10½, 13, and 15 needles. Notice the difference in size after felting. This is a factor you should keep in mind if you're trying to modify an existing pattern or design something new.

You can also use this knowledge to manipulate exactly how a pattern shrinks. In our Karaoke Wrap pattern on page 58, we

used this concept to create a scalloped edge in the final felted product: The inserts were intended to shrink "up" while the wrap itself, knitted lengthwise from end to end, shrank "in."

Crochet and Felt

The editor of *Crochet Me* magazine, Kim Werker, and technical editor, Julie Holetz, shared plenty of interesting information with us about felted crochet. While felted knits shrink more vertically, felted crochet is exactly the reverse—it decreases more in width. To adapt knit-and-felt patterns for crochet, you'll need to take shrinkage dimensions into account accordingly. Julie notes that one reason you might prefer to crochet a piece for felting is that it will retain more of its stitch pattern definition. If that's something you like, try felting a crocheted swatch.

These samples were crocheted in single, half double and double crochet, using worsted-weight wool and a G (4.5mm) hook.



Above, three crocheted swatches before felting, all 20 stitches and 20 rows on a size G (4.5 mm) hook

1: single crochet 2: double crochet 3: triple crochet

Below, the same swatches after felting



Knowing that crochet loses width, you might crochet the top few inches of a knitted purse body to make a textured opening that curves in slightly without any knit decreases. Or make yourself a beret with a crocheted band that pulls in the main body of the hat. Experiment!

Finishing

When you're satisfied with the degree of felting, there's still a little more work to be done.

If you're felting in the washing machine, let the piece run through a cold rinse and a spin cycle to remove the soap and excess water. The spin cycle may smash and crease the piece in strange ways, but that can all be blocked out before it dries completely. When felting by hand, make sure to rinse the piece thoroughly in cold water.

This final rinse serves two purposes: The cold water makes the cuticle on the fiber contract, and you may even notice that your fabric seems just barely firmer after a good cold rinse. It's also important to remove as much soap as you can; you don't want to cover everything the project touches in soapy residue, and over time a strong soap might cause the wool to degrade. After rinsing, roll the piece up and squeeze as much water out as you can without wringing or twisting it.

If you're a knitter, you're probably familiar with the magic of blocking when it comes to evening out stitches and flattening curled edges. Because felt is a much denser and

stiffer fabric than almost any knit, it can be blocked to dramatic effect. A crease made in wet felt will dry to be virtually permanent. Stretching the felted fabric while it's still wet can create a nicely flared edge. With enough patience and force, you can block felt into virtually any shape you can imagine. And if you screw up, you can always shrink it back down slightly and start over.

Some simple blocking can be done just by folding or tugging the item around while it's still wet from the felting process, but for more involved jobs, or for reblocking an item that has already dried, the best tool available is steam. There are a variety of steamers available at different prices and in different sizes—in addition to laundry steamers, some are sold as steam cleaners and come with scrubbing and pressure-washing attachments—or you can steam your felt using the steam setting on your iron and holding it close to, but not against, the fabric. Travel irons, which are considerably smaller than the average laundry-room variety, come in handy for blocking in small spaces such as hat interiors.

Projects that don't require careful blocking can sometimes be tumble dried. We recommend this only when it's more important that the item be soft and fluffy than that it be precisely shaped or fitted. For example, a pair of warm slippers or a scarf would probably be fine in the dryer, but we would never tumble dry a shaped hat like the Cloche on page 28.

 Tip: Felt grooming



pills on the felt surface

Many yarns felt solidly but leave a halo of fibers sticking out of the felt matrix. How you treat the fuzzies is entirely a matter of preference. You can trim the fuzz with scissors or a sweater shaver; you can brush it for a neater appearance, or you can let it run wild. Brushing can change the look of a felted surface considerably. Brushing also removes tiny bits of



the same fabric after grooming

pilling. Most of the bags and hats in this book have been defuzzed with scissors or an inexpensive sweater shaver from a dollar store. Don't use a sweater stone or a "d-fuzz-it" comb, both of which are meant for removing pills from sweaters. They'll just tear the fibers and make the surface look worse.



 Felting or fulling?

Technically, much of what we call felting in this book is actually fulling. Some people only consider processes that start with raw wool worthy of the term "felting," and that any process that starts with a shaped object and shrinks and thickens the fabric into felt should be called "fulling." By that definition, purposefully shrinking knit pieces is properly called fulling. As for us, we're not traditionalists. If the end product can be described as "felt," we're calling the process "felting."



Trapezoid Bag

One of the reasons we love felt is the variety of methods and materials you can use to embellish it, and this bag is the perfect blank canvas for all your experiments. Knit it with a plain yarn, a self-striping yarn, or the oddballs from your feltable stash (because, oh yes, when we're done with you, you'll have a whole separate yarn stash just for felt). You could even make a furry "monster-skin" bag by carrying a strand of fun fur or eyelash for the whole body. Learn to embellish or monogram your plain bag with needle felting on page 82.

Finished size

Before felting: 18" (45.5 cm) wide and 12" (30.5 cm) deep.

After felting: 13" (33 cm) wide and 8½" (21.5 cm) deep.

Yarn

CYCA #4 Medium (worsted-weight) wool yarn: about 440 yd (402 m) total. Worsted-weight yarn is held double throughout.

Shown here: Cascade 220 (100% wool; 220 yd [201 m]/100 g): #9404 ruby, 2 skeins, or #2410 purple, 2 skeins.

Needles

U.S. size 13 (9 mm): 24" circular (cir).

Notions

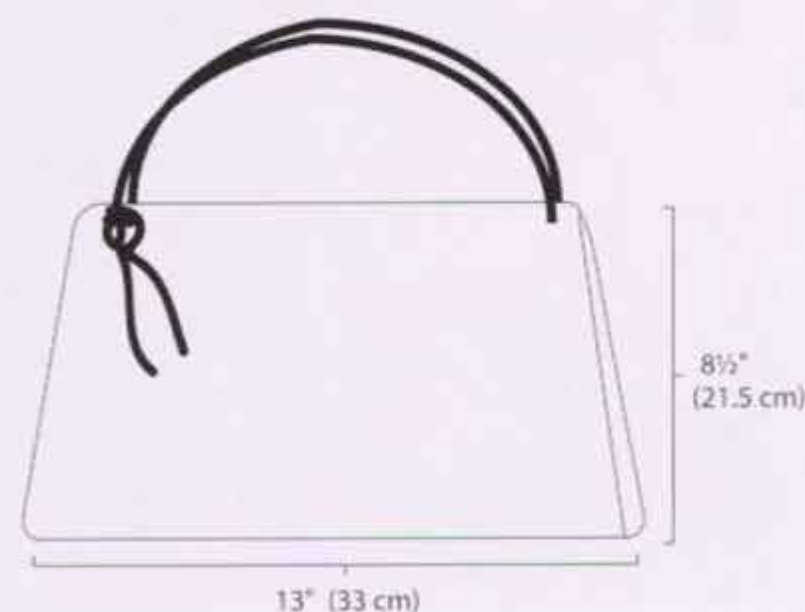
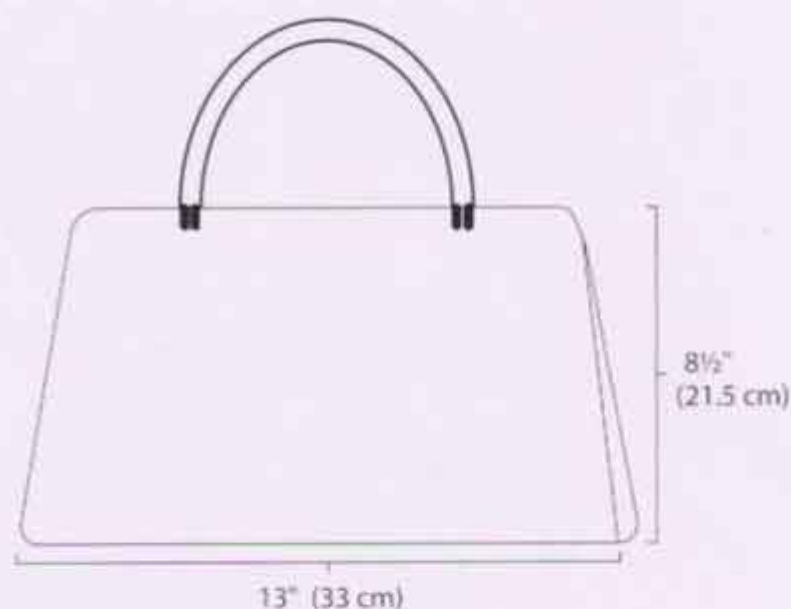
Stitch markers; tapestry needle; cotton string or scrap yarn; acrylic or wood purse handles (optional).

Gauge

10 sts and 16 rnds = 4" (10 cm) in St st with yarn held double.

Stitch Guide

Decrease round (dec rnd): K2tog, knit to 2 sts before marker, k2tog, slip marker (sl m), k8, sl m, k2tog, knit to 2 st before marker, k2tog, sl m, k8, sl m—4 sts dec.



Knit

Base

With yarn held double, CO 45 sts. Work 20 rows in garter st (knit every st on every row). Place marker (pm), pick up and knit 8 sts along one short edge, pm, pick up and knit 45 sts along long edge, pm, pick up and knit 8 sts along other short edge, pm—106 sts total.

Body

Rotate work to knit back across the last row knitted before picking up edge sts. Join for working in the rnd, being careful not to twist sts, and work in St st (knit every st on every rnd) for 10 rnds.

Rnd 11: Work dec rnd (see Stitch Guide)—102 sts rem.

Rnds 12–44: Work in St st and *at the same time* rep dec rnd every 4th rnd 8 times—70 sts rem after last dec rnd is worked.

BO all sts loosely. Knot and trim yarn ends, but do not weave in.

I-Cord strap

With 2 strands MC and dpn, work 3-st I-cord (see Glossary, page 124) until cord is about twice the desired finished length.

Felt

With cotton string or scrap yarn threaded on a tapestry needle, baste the top opening of the bag closed. Felt the bag and strap by hand or washing machine. Cut and remove the cotton string or scrap yarn, opening the top of the bag.



Photo by Christine Gley

bag before felting

Shape

To sharpen the corners of the base, pinch them between thumb and forefinger and tug at the corners from the outside of the bag. You may also shape the corners with your fingers on the inside to better define them. Pinch together the vertical lines formed by the decreases on each short side to form a crease, so that the narrow sides fold inward. Continue to shape the wet bag, straightening the edges and sharpening the corners.

Allow the bag to dry standing on its base. This dense felt will stand on its own even while wet, so there is no need to block it over a box or other form. If the felted fabric needs some support to hold the creases together at the side edges, do not use pins or clips to secure them, as these will leave impressions in the felt. Instead, use a sharp needle threaded with short lengths of smooth scrap yarn to sew through the fabric, then knot the yarn together to hold the creases in place while the bag dries. The pleats in the sides can be secured by sewing through all four layers of felt at the top edge and tying the thread tightly. The ties can be cut and removed later without leaving visible marks in the felt.

Attach I-cord strap

If you are using an I-cord strap, determine where you want to attach it. In the purple bag on page 24, the sides were folded inward at

the creases and holes were made through all four fabric layers about 1" (2.5 cm) from the side edge on both edges of the bag and ½" (1.3 cm) down from the top opening. To make holes in the felt, use a large knitting needle (at least size 13 [9 mm]) and poke holes through the felt. This can be difficult, but work slowly and you will be able to stretch the hole until the needle fits all the way through. Then simply thread the cord through these holes. Adjust the strap length and trim the ends. On the purple bag, we threaded the cord in one continuous loop and finished with a decorative knot on the outside of the bag.

Make it yours

Instead of an I-cord purse strap, explore other options:

- ✓ *Buy acrylic handles at a fabric or yarn store, as we did for the red bag.*
- ✓ *Recycle the handles and hardware from a thrift store bag.*
- ✓ *Attach a belt to make a unique strap.*



Tip

With use, felt can soften and lose definition. Use an iron or a steamer to freshen up the shape and reblock when necessary. If the whole bag has stretched and gotten floppy, full it back to its original size (or close) with a quick trip through the laundry, then reblock.





Cloche Hat

Traditional milliners make exquisite hats by starting with a flat piece of felt called a “blank,” then stretching it slowly and carefully over a hat block of the desired shape and size. This process takes a lot of skill, and a lot of steam, to make the material pliable. You don’t need such expertise to make this bell-shaped cloche, but sizing and shaping this one-size-fits-all hat is an exercise to practice your own blocking skills. The hat is quite oversized to start with but can be fulled until it’s small enough to make a child’s large-size hat.

Finished size

Before felting: About 14½" (37 cm) long and 30" (76 cm) in circumference.

After felting: About 10" (25.5 cm) tall and 26" (66 cm) in circumference, measured around CC band.

Hat shown here is extra large.

Yarn

CYCA #4 Medium (worsted-weight) wool yarn: 400 yd (366 m) MC; fur or eyelash yarn: about 60 yd (55 m) CC. *Shown here:* Cascade 220 (100% wool; 220 yd [201 m]/100 g); color 9420 (MC), 2 skeins, and Lana Gatto Crystal (63% viscose, 20% nylon, 17% polyester; 87 yd [80 m]/50g); color 4118 (CC), 1 ball.

Needles

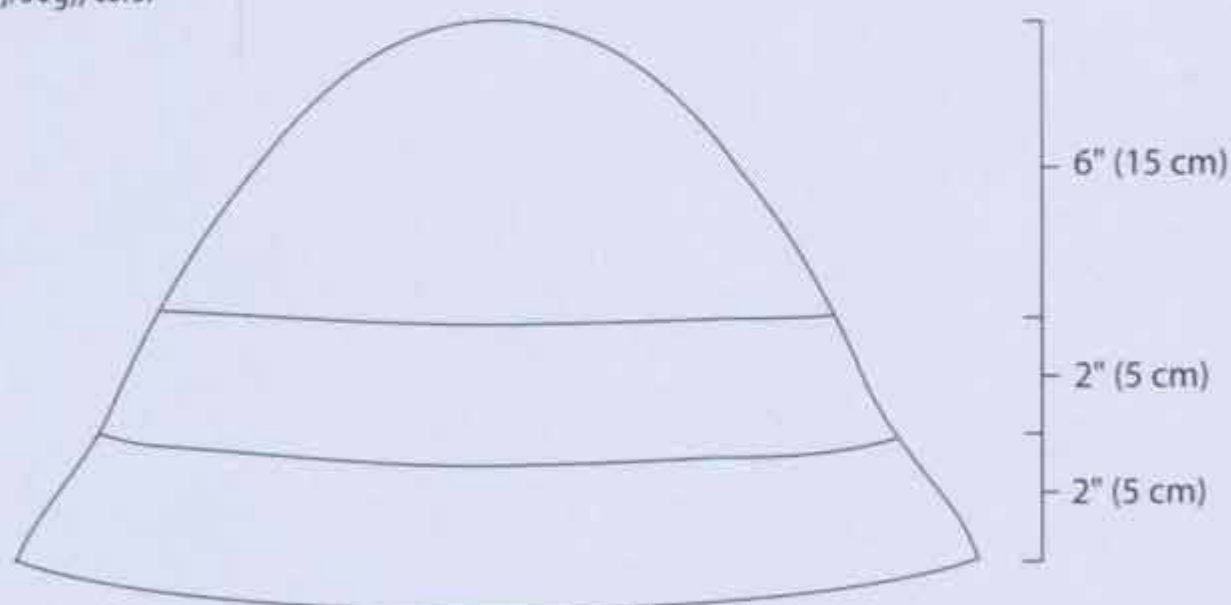
U.S. size 10½ (6.5 mm): 24" (61 cm) circular (cir) and set of 5 double-pointed (dpn). Adjust needle size if necessary to obtain the correct gauge.

Notions

Tapestry needle.

Gauge

Before felting: about 10 sts and 14 rnds = 4" (10 cm).



Knit

Hat Brim

With cir needle and MC, CO 75 sts. Join for working in the rnd, being careful not to twist sts. Work in St st (knit every stitch on every rnd) for 10 rnds.

Hatband

Holding 1 strand CC with 1 strand MC, work in St st for 10 rnds. Cut CC and continue to work in MC.

Hat Body

Work in St st for 15 rnds.

Shape Crown

Change to dpns when too few stitches remain to continue using cir needle.

Rnd 1: (dec rnd) *K13, k2tog; rep from * to end—70 sts rem.

Rnds 2–5: Knit.

Rnd 6: (dec rnd) *K5, k2tog; rep from * to end—60 sts rem.

Rnds 7–8: Knit.

Rnd 9: (dec rnd) *K3, k2tog; rep from * to end—48 sts rem.

Rnd 10: Knit.

Rnd 11: *K4, k2tog; rep from * to end—40 sts rem.

Rnd 12: Knit.

Rnd 13: (dec rnd) *K2, k2tog; rep from * to end—30 sts rem.

Rnd 14: Knit.

Rnd 15: (dec rnd) K2tog to end of rnd—15 sts rem.

Rnd 16: (dec rnd) K1, *k2tog; rep from * to end—8 sts rem.

Rnd 17: (dec rnd) K2tog to end of rnd—4 sts rem.

Cut yarn, leaving a 4" (10 cm) tail. Thread tail through rem sts, pull tight to gather, and fasten off inside.



completed hat, unfelted

photo by Christine Olvey

Felt

Felt by hand or washing machine. Monitor the felting process closely and stop when the hat looks just barely too small for the intended wearer.

Shape

Block hat over a hat stand, bowl, or ball about the same size as the wearer's head. Working evenly all the way around the hat, pull the brim straight down so that the top of the hat is stretched over the blocking form. Work slowly, and keep a spray bottle or steamer on hand to keep the hat damp until it is blocked to shape. Pulling on the brim evenly around its circumference will help stretch the fabric lengthwise, making the overall shape of the hat longer and narrower through the middle. Be careful not to stretch out the brim too much during this process, or your cloche may look like a broad-brimmed sun hat. Continue pulling the hat down over the block until you are satisfied with the fit of the crown and the length. Block the brim by gently stretching and flaring it outward.





Bag of Many Pockets

The two different-colored sections of this bag are assembled to create five separate pockets: one big enough to hold a small knitting project, another for your wallet, and three small exterior pockets perfect for your cell phone, sunglasses, or knitting notions. Knit the length of the strap according whether you prefer to carry it as a purse with a short strap or a shoulder tote. Part of the assembly is done after felting, so you'll need a sharp tapestry needle. A thimble, old-fashioned though it may be, will help you push the needle through two layers of thick felt without wounding your fingers.

Finished size

Before felting: 10" (25.5 cm) deep at center before shaping; 36" (91.5 cm) in circumference.

After felting: 6" (15 cm) deep at center before shaping; 32" (81.5 cm) in circumference.

Yarn

CYCA #4 Medium (worsted-weight) wool yarn: about 500 yd (457 m) color A and 350 yd (320 m) color B.

Shown here: Orange bag: Cascade 220 (100% wool, 220 yd [201 m]/100 g): #9465 burnt orange (color A), 3 skeins; #7825 orange sherbet (color B), 2 skeins. Pink bag: Manos del Uruguay

Needles

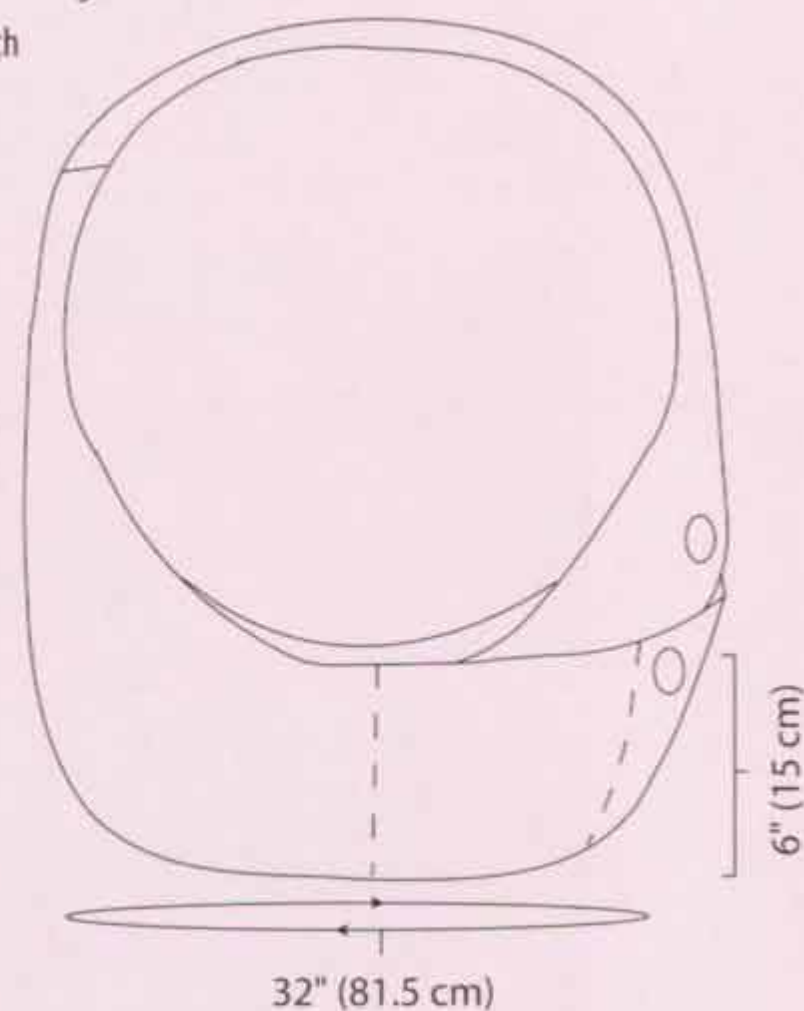
U.S. size 13 (9 mm): 24" (60 cm) circular (cir).

Notions

Long straight pins; sharp tapestry or darning needle with large eye; thimble; stitch markers; stitch holders.

Gauge

10½ sts and 12 rnds = 4" (10 cm) in St st with yarn held double.



Knit

Large Section

Base: With 2 strands A held together, CO 32 sts. Work 30 rows in garter st (knit every st of every row).

Body: After completing the last garter st row, place marker (pm), pick up and knit 14 sts along short edge of base, pm, pick up and knit 32 sts along CO edge, pm, pick up and knit 14 sts along second short edge of base—92 sts total. Join for working in the rnd, being careful not to twist sts. Work 30 rounds in St st.

Shaping: Work short-rows (see Glossary, page 125) as foll:

Row 1: With A, knit to second m (14 sts), slip marker (sl m), k16, BO 46, k2, ssk, knit to last 4 sts, k2tog, k2, turn work—44 sts rem.

Row 2 and all WS rows: Purl.

Row 3: K2, ssk, knit to 2 sts before next m, ssk, sl m, k14, sl m, ssk, knit to last 4 sts, k2tog, k2—40 sts rem.

Row 5: K2, ssk, knit to last 4 sts, k2tog, k2—38 sts rem.

Row 7: Rep Row 3—34 sts rem.

Rows 9 and 11: Rep Row 5—30 sts rem after Row 11 is completed.

Row 13: Rep Row 3—26 sts rem.

Rows 15 and 17: Rep Row 5—22 sts rem after Row 17 is completed.

Row 19: Rep Row 3—18 sts rem.

Row 21: K2, ssk, knit to 2 sts before next m, ssk, sl m, k6, k2tog, k6, sl m, ssk, knit to last 4 sts, k2tog, k2—13 sts rem.

Rows 23, 25, and 27: Rep Row 5—7 sts rem after Row 27 is completed. Remove markers.

Shorter Strap: Work 25 rows in St st. Place sts on holder. Cut yarn, leaving 4" (10 cm) tail.

Small Section

Body: With 2 strands B held together, CO 54. Join for working in the rnd, being careful not to twist sts. K41, pm, k13, pm. Work in St st for 28 rnds.

Next rnd: Knit to second m, sl m, k15, BO 13, turn work—41 sts rem.

Shaping:

Row 1: K2, ssk, knit to next m, sl m, ssk, knit to next m, sl m, k2tog, knit to last 4 sts, k2tog, k2, turn—37 sts rem.

Row 2 and all WS rows: Purl.

Rows 3 and 5: K2, ssk, knit to last 4 sts, k2tog, k2, turn work—33 sts rem after Row 5 is completed.



Row 7: Rep Row 1—29 sts rem.

Rows 9 and 11: Rep Row 3—25 sts rem after Row 11 is completed.

Row 13: Rep Row 1—21 sts rem.

Rows 15, 17, 19, 21, 23, 25, and 27: Repeat Row 3—7 sts rem after Row 27 is completed.

Longer Strap: Work 75 rows in St st. Place sts on holder.

Assemble

Cut B, leaving a 12" (30.5 cm) tail. With tail threaded on a tapestry needle, use the Kitchener st (see Glossary, page 123) to graft rem 7 sts of each strap tog.

Being careful that the strap is not twisted, place the small section inside the large section. Align the small section so that the shorter section is positioned toward bag center. Cut four 6" (15 cm) lengths of A. Join large section to small section as foll: Using

straight pins, mark each end of the 13 BO sts for the first 2 corners. Smooth the small section between the corners of the larger section along the short edge, and mark both sides of the short edge with pins as the third and fourth corners. Thread tapestry needle with one strand A and, beg at one pin, insert needle through several stitches on WS of smaller bag, as if weaving in ends, to anchor yarn. Insert needle through fabric to WS of larger section and weave through several stitches on the larger bag to hold the two sections together. To secure pieces firmly, reinsert needle through the smaller bag to WS, weave through a few sts, then exit from smaller section into larger section once more. Rep at each pin for rem 3 corners. Remove pins.

Felt

Felt by hand or washing machine.

Shape

Block gently by stuffing with towels or white paper and allow to dry.

Stitch pockets

With A threaded on a tapestry needle and using backstitch (see Glossary, page 124), sew large and small sections together vertically at the corners of the small section. Turn the bag inside out and backstitch horizontally around the bottom of the small bag section to anchor it to the larger bag and seal pocket bottoms.

Make it yours

Embellish the bag as you wish:

- ✓ *Attach a needle-felted flower (see page 90) as shown on the pink and mauve bag.*
- ✓ *Reverse appliqué a section to reveal the inside color, as on the orange bag: using sharp pointed scissors or a craft knife, cut out small openings as decorations.*
- ✓ *You may stitch around the reverse appliqué openings in a complementary color or take advantage of the fact that felt doesn't fray and leave the edges exposed.*



bag before assembly and felting





Mod Knitting Bag

Some people are nervous about using stranded color work in their felted projects. The variables can seem threatening: Will the joins between colors felt evenly? Will the extra thickness felt unevenly? Will the floats on the back side pucker? Keep your tension even, twist long floats roughly every 5 stitches, and you may be surprised how trouble-free this technique is. This short, wide project bag will easily hold most of your knitting projects, even the ones on long single-pointed needles. The color pattern is inspired by a vintage mod wallpaper print.

Finished size

After felting: About 11" (28 cm) across longer sides, 4" (10 cm) along shorter sides, and 8" (20.5 cm) tall (not including flap).

Yarn

CYCA #4 Medium (worsted-weight) wool yarn: 220 yd (201 m) each of colors A and B.

Shown here: Cascade 220 (100% wool; 220 yd [201 m]/100 g): #7802 cerise (A) and #7803 magenta (B), 1 skein each.

Needles

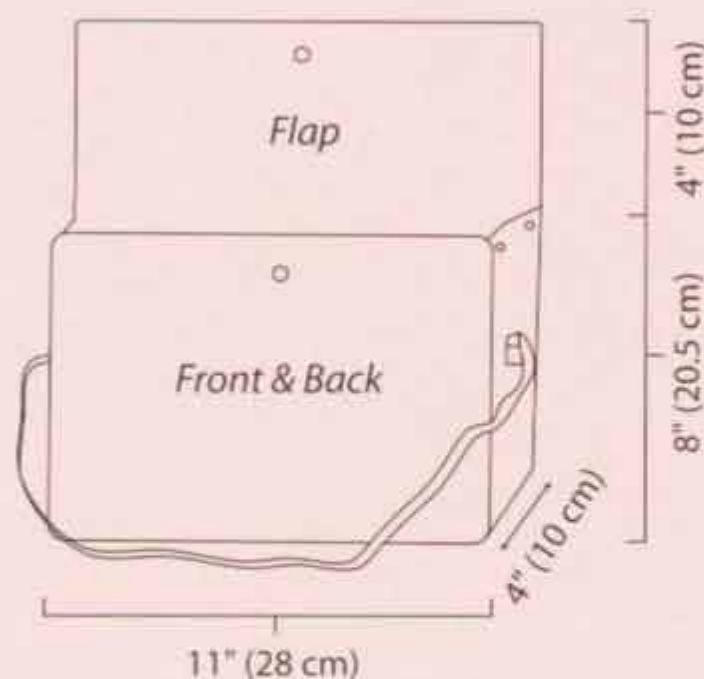
U.S. size 10½ (6.5 mm): 24" (60 cm) circular (cir) and set of 5 double-pointed (dpn) (optional).

Notions

1 yd (91.5 cm) nylon webbing or other sturdy fabric about 1–1½" (2.5–4 cm) wide for handle; sharp darning needle; 1 sheet plastic canvas about 9 × 13" (23 × 33 cm), cut to fit the base of the bag after felting; 1 sheet felt (black or color to match either yarn), about 9 × 13" (23 × 33 cm); 3 snaps or magnetic purse closures; sewing needle and thread.

Gauge

13 sts and 20 rnds = 4" (10 cm) in St st before felting.



Knit

Base

With A and cir needle, CO 60 sts. Knit 1 row. Change to B and knit 2 rows. Cont working in garter stitch, alternating colors every 2 rows, until 42 rows have been worked. (Carry the unused color up the side as you go so there will be fewer ends to weave in later.)

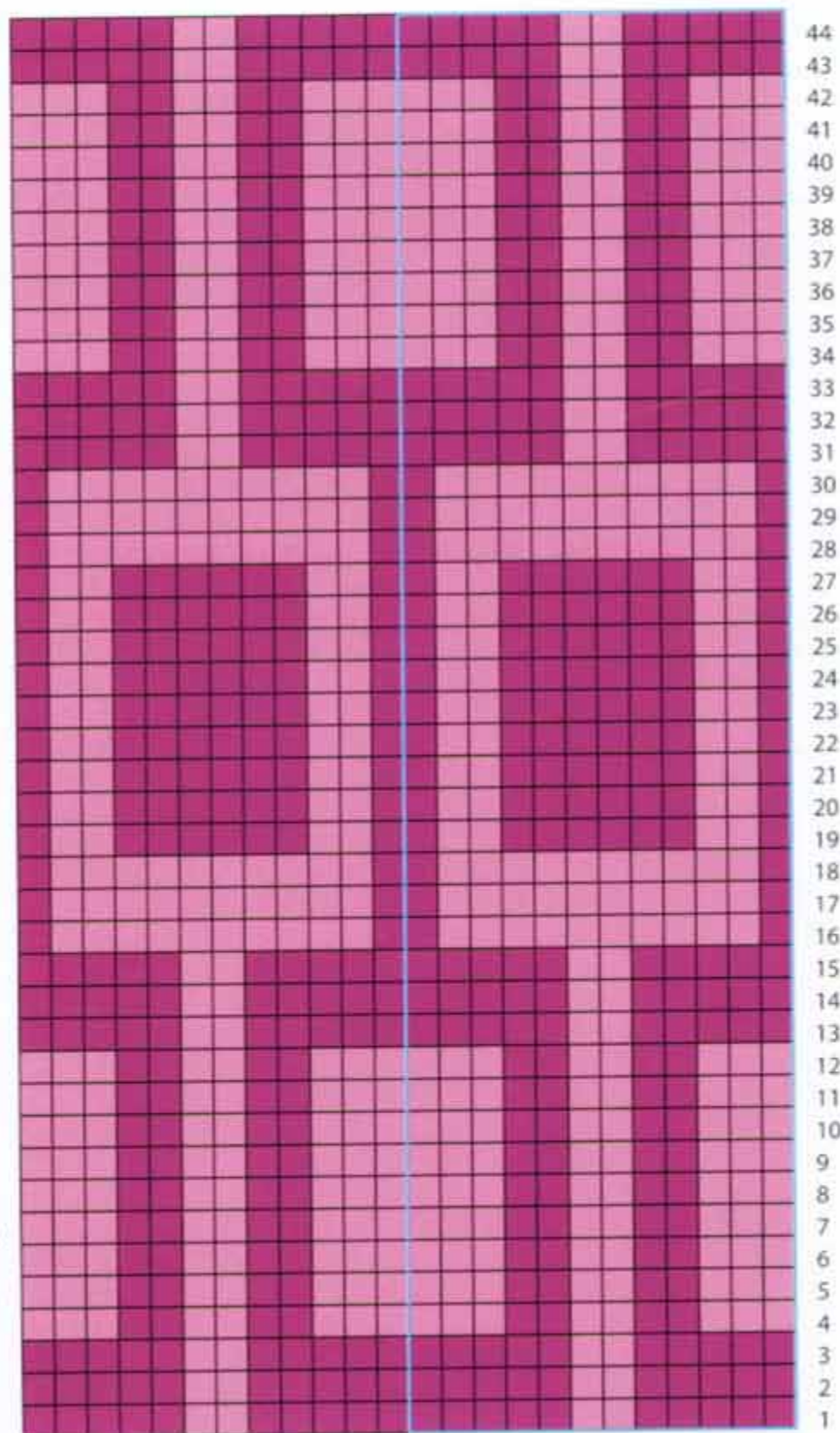
Mod Chart

Stripe Chart



Rep patt for 20 sts.

-  color A #7802
-  color B #7803
-  pattern repeat



Body

With RS facing, place marker (pm), pick up and knit 20 sts along short edge of base, pm, pick up and knit 60 sts along CO edge, pm, pick up and knit 20 sts along other short edge of base, pm, k60 live sts—160 sts total. Join for working in the rnd, being careful not to twist sts, and work Rnds 1–44 of Mod chart for each long side (60 sts) and Rnds 1–2 of Stripe Chart for each short side (20 sts)—44 rnds total.

Flap

Next rnd: Foll Rnd 15 of Mod Chart, k60 sts; using A only, BO to end of rnd—60 sts rem. Beg with Rnd 16 of Mod Chart, k60; with dpns, use the backward-loop method (see Glossary, page 121) to CO 2 sts with A, and join for working in the rnd—62 sts total. Cont as established, knitting the 2 CO sts with A and working Rnds 16–30 of Mod Chart. With B, BO all sts. (See tip on page 39.)

Felt

With cotton waste yarn threaded on a tapestry needle, whipstitch openings closed to prevent the edges from stretching during felting. Felt by washing machine or hand. While still wet, remove waste yarn.

Shape

To block, stuff the flap with a rolled towel to form a uniform tube; shape the body into a rectangle. Once dry, cut the flap open between the 2 sts CO before flap was joined for working in the round. If necessary, you may dampen and reblock the body of the bag after the flap is cut.

To stiffen the bottom of the bag, cut a piece of plastic canvas and a piece of craft

felt to fit the bottom of the bag. With yarn threaded on a tapestry needle, sew the plastic canvas into bag bottom. Sew the craft felt into place, covering the plastic canvas.

Position a snap at each short end of the bag as shown on page 37 and sew into place (or attach according to snap manufacturer's

directions). Close the snaps to create a pleat at the top of the bag or leave them open to make more room. Attach the male side of the third snap to the center edge of the flap. Close the flap, determine where to position the other side of the snap, and attach it.



Tip:

Whenever you felt a flat knitted rectangle, the shape will be distorted. The corners will flare out and the center will draw in. To ensure a better shape, knit the rectangle in the round, then cut it open after felting.

Make it yours

Use the needle-felted appliqué technique on page 82 and a contrasting color yarn to embellish the color-work pattern with a needle-felted outline to add interest and contrast.





Messenger Bag

This mid-size messenger bag is a variation of Heather's dream bag, the one she imagined and designed as her first felted project (before she was talked into the awful purple yarn). It's just the right size to hold some books and a small blanket for a trip to the park. The springtime green stripes will always be in style, and you can customize the length of the strap depending on whether you prefer to carry the bag over one shoulder or securely across your body.

Finished size

Before felting: 18" (45.5 cm) across each long side, 4½" (11.5 cm) across each short side, and 19" (48.5 cm) tall (not including flap).

After felting: 14" (35.5 cm) across each long side, 4" (10 cm) across each short side, and 12" (30.5 cm) tall (not including flap).

Yarn

CYCA #5 Bulky wool/mohair blend yarn: 250 yd (228.5 m) in each of three colors.

Shown here: Brown Sheep Lamb's Pride Bulky (85% wool, 15% mohair; 125 yd [114 m]/100 g): Charcoal Heather (C1), Kiwi (C2), and Oregano (C3), 2 skeins each.

Needles

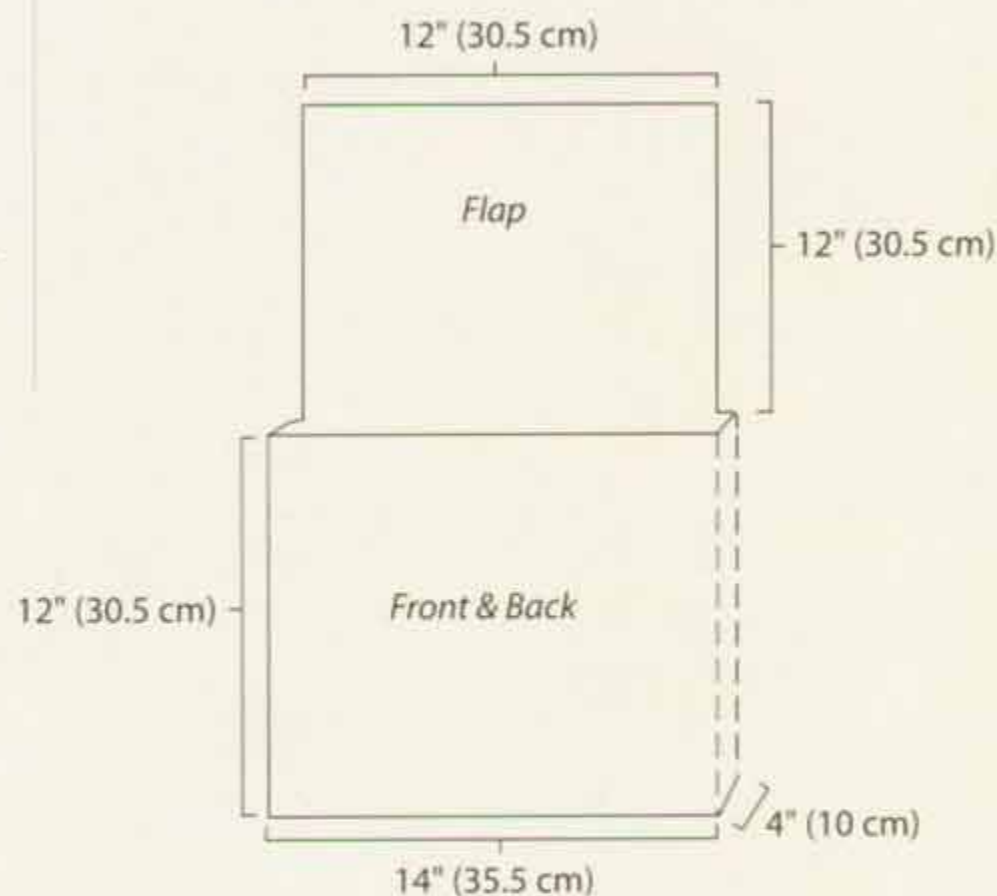
U.S. size 13 (9mm): 24–29" (60–73.5 cm) circular (cir).

Notions

4 large stitch markers; tapestry needle; about 1½ yd (137 cm) 2" (5 cm) wide black nylon or poly belt-
ing; lighter (for finishing ends of strap).

Gauge

11 sts and 15 rnds = 4" (10 cm) in St st.



Knit

Base

With C1, CO 50 sts. Work in garter st (knit every st in every row) for 26 rows.

Body

With RS facing, pick up and knit 12 sts along one short edge of base, place marker (pm), pick up and knit 50 sts along CO edge, pm, pick up and knit 12 sts along second short edge of base, pm; k50—124 sts total.

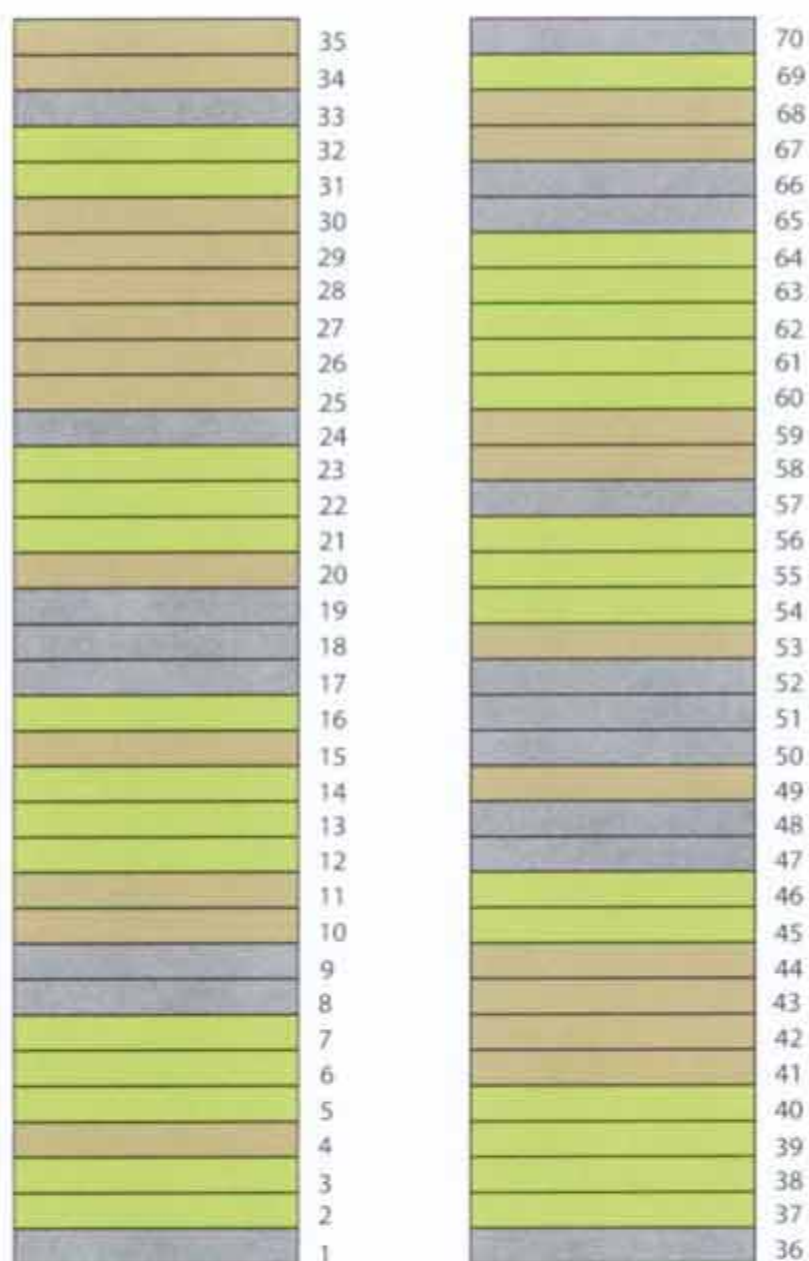
Join for working in the rnd and work in St st

(knit every st on every rnd), following stripe pattern, for 70 rnds. Bag measures about 18" (45.5 cm) across each long side, 4 1/2" (11.5 cm) across each short side, and 19" (48.5 cm) tall from beg of body.

Flap

Next Rnd: K50, BO 74 sts—50 sts rem.

Knit 1 row with C1; turn work. Work in St st, foll stripe patt *in reverse* (Rows 70–1) and rep as necessary, until flap measures about 19" (48.5 cm) from beg of flap. BO all sts. (You may choose to knit the flap in the round, as in the Mod Bag, but that step is less important here because the pattern is simple stripes instead of stranded color work.)



- C1 — charcoal heather
- C2 — kiwi
- C3 — oregano



Felt

Knot and trim, but do not weave in, all yarn ends. Felt by machine or hand.

Shape

For best results, block bag over a sturdy box big enough to stretch it just slightly. If you can't find an appropriate box, you can also stretch it over the back of a chair or stuff it with rolled towels. Leave the bag stretched over the form until the outside feels dry. If necessary, remove towels and allow the inside to dry.

This bag is an ideal candidate for surface grooming: The mohair blend yarn allows the wool content to shrink tightly while strands of mohair are visible on the surface. We trimmed up the body with scissors to keep it neat and minimize the lint it might leave on your clothes or its contents, and we used a plastic bristled hairbrush to brush out the mohair on the flap.

Attach strap

After the bag has dried completely, attach the strap. Use the lighter to melt one cut edge of the belting so it doesn't fray. With about 3" (7.5 cm) of the strap overlapping one short side of the bag, use C3 and a sharp tapestry needle to sew a rectangle just inside the edge of the belting, then sew an X through the rectangle for a sturdy attachment. Trim strap to desired length, then melt strap and attach the second end as for the first.

If you'd like to add buttons and buttonholes to hold the flap closed, or trim the flap to a better size, cut it just as you would any other felt or fleece fabric. The fibers should remain felted together and not fray.





Urchin Bag

When you're entranced with knits that shape themselves, a short-row heel is one of the coolest things ever. This bag is made up of five heel shapes stuck together to make a puffy star. Little girls love this simple, fun bag, which was designed to carry essentials like your cell phone, cash, and lipstick.

You can use your carry-along yarn for the entire bag for greatest impact. If that makes the fabric too dense for your liking, try knitting it into every other row instead of every row, or only into selected parts of the bag. When in doubt, swatch first.

Finished size

Before felting: 8" (20.5 cm) tall and 3" (7.5 cm) from edge to center of each lobe.

After felting: 5" (12.5 cm) tall and 2½" (6.5 cm) from edge to center of each lobe.

Yarn

CYCA #4 Medium (worsted-weight) wool yarn: 200 yd (183 m) MC, and eyelash or other carry-along yarn: up to 60 yd (55 m) (CC, optional).

Shown here: Bag on page 44: Brown Sheep Nature Spun (100% wool, 245 yd [224 m]/100 g): color N85 Peruvian Pink (MC), less than 1 skein, and Tahki Pop (95% wool, 5% nylon, 27 yd [24.5 m]/50 g), color 002 (CC), 1 ball; Bag on page 47, Cascade 220 (100%

wool, 220 yd [201 m]/100 g): color #9474 plum, 1 skein, and Trendsetter Masai (48% wool, 48% acrylic, 4% nylon, 35 yd [32 m]/50 g): color 260, 2 balls.

Needles

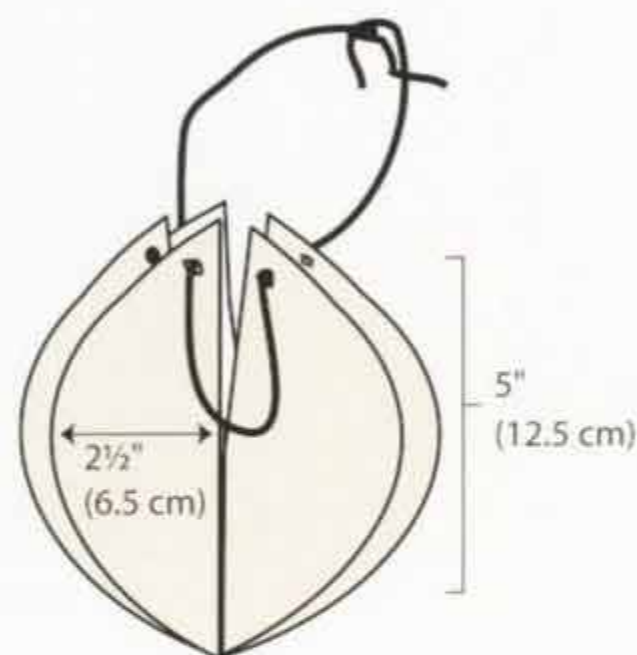
U.S. size 13 (9 mm): straight or circular (cir); U.S. size 10½ (6.5 mm): double-pointed (dpn) (optional, for I-cord).

Notions

Ribbon or manufactured cord for the drawstring (optional); tapestry needle.

Gauge

10 sts = 4" (10 cm) in St st with 2 strands MC on size 13 (9 mm) needle (before felting).



Bag

With 2 strands of MC and larger needles, CO 20 sts firmly.

Row 1: Knit.

Begin short-rows (see Glossary, page 125):

Row 2: K19, wrap next st, turn work (w & t).

Row 3: K18, (w & t).

Row 4: K17, (w & t).

Row 5: K16, (w & t).

Rows 6–16: Cont in this manner, working 1 fewer st each row before wrapping the next st, until 6 live sts rem with 7 wrapped sts on each side. (In the bag on page 48, 1 strand MC and 1 strand CC were used for Rows 10–22.)

Row 17: K6, purl the first wrap and stitch together, turn work.

Row 18: K7, purl the next wrap and stitch together, turn work.

Rows 19–31: Cont as established, working wrap and st at the end of each row, until all wrapped sts have been worked. This completes one "lobe" of the bag.

Rep Rows 2–31 four more times (total of 5 lobes). BO all sts firmly. Cut yarn, leaving a 12" (30.5 cm) tail.

I-cord drawstring (optional):

With one strand MC and dpn, work 3 st I-cord (see Glossary, page 124), until piece measures about 24" (61 cm) from CO. BO all sts.

Finishing

With yarn threaded on a tapestry needle, sew BO edge to CO edge. There will be a

round opening at each end of the seam. To make a solid bottom for the bag, thread the tail through the stitches at the edge of one opening twice and pull tight to gather. This doesn't have to be pretty, as the stitches won't show after felting. If you have extra CC, you may use it to duplicate stitch or embroider on the MC sections.

Felt

Felt the purse and I-cord by washing machine or hand. If using a washing machine, you may want to place the I-cord in a zippered pillow case or lingerie bag to prevent it from tangling with other items in the machine.

Shape

Once it has been felted, shape the damp bag and allow to dry thoroughly inside and out. This may take a day or two. To prevent the bag's weight from deforming any lobes, thread a length of scrap yarn through one end and hang the bag to dry.

When the bag is dry, use sharp scissors to cut down about 1½" (3.8 cm) from the top opening into each of the valleys between the lobes of the bag. This will create five points around the opening. Stab a large-size knitting needle through each point to create holes for the I-cord or other drawstring. Thread the drawstring through all five points and trim to desired length, then tie both ends together into a knot.



Short-rows with wraps

All kinds of knitted objects can be shaped with short-rows, and when you're felting the finished item, a subtle curve created with just a few short-rows can have a surprisingly dramatic result. Block the piece carefully when damp to exaggerate the shape even more. Some people are intimidated by this technique, but all you do to create short-row shaping is work only part of the row, then turn and work back. Patterns often call for wrapping short-rows, a simple modification to prevent holes from forming. For complete instructions on working with short-rows, see Glossary, page 125.

Make it yours

✓ To make a neat little pillow or toy, skip cutting open the top of the bag and instead stuff it with wool or fiberfill, then sew it closed.

✓ You can set grommets in the holes for the drawstring, hang tassels and ribbons from the bag, cover it in rhinestones, add beadwork, or give it eyes and pretend it's a Muppet head. Anything goes.



Urchin Hat

When she saw the first urchin bags, Shannon immediately asked Heather, "Can you make this a hat?" Of course we can! The hat is obviously bigger than the original bag, and the short rows on the bottom half aren't as deep. A couple of stitch markers make the pattern easy to keep track of. The one size given here is intended for children, since children can get away with wearing extremely silly hats, but it will easily fit a small adult if felted lightly or blocked larger.

Knit

First lobe

With 2 strands yarn, CO 30 sts.

Set-up row: K6, place first marker (pm), k14, pm, k10.

Begin short-rows (see Glossary, page 125) for top as foll:

Row 1: K10, slip marker (sl m), k14, sl m, k5, wrap next st and turn work (w & t).

Row 2 and all even-numbered rows: Knit to end of row, slipping markers as you meet them, turn work.

Rows 3, 5, 7, 9, and 11: Knit to 1 st before last wrapped st, w & t.

After completing Row 11, all 6 sts before the first marker are wrapped. Slip first m to right needle.

Cont to work short-rows at each end of the 14 sts between markers as foll:

Row 12: Knit to 1 st before next marker (13 sts), w & t.

Row 13: Knit to 1 st before next marker, w & t.

Rows 14–17: Knit to 1 st before last wrapped st, w & t.

You should now have 6 live sts unwrapped in the center of the 14 sts, with 4 wrapped sts each side of the 6 live sts.

Hide wraps as foll:

Row 18: K6 to first wrapped st, work wrap and st tog, turn work.

Row 19: Slip 1 st (sl 1) purlwise, knit to first wrapped st, work wrap and st tog, turn work.

Rows 20–25: Sl 1 purlwise, knit to next wrapped st, work wrap and st tog, turn work.

Row 26: Sl 1, knit to end of row.

Row 27: K10, sl m, k14, sl m, work wrap and st tog, turn work.

Row 28: Sl 1, knit to end of row, slipping markers as you meet them.

Row 29: Knit to next wrapped st, work wrap and st tog, turn work.

Rep Rows 28 and 29 four more times, until all wraps and stitches are worked together.

Row 38: Knit 1 row, slipping markers as you meet them.

When Row 38 is finished, the working yarn should be at the row end that has 10 sts after the second marker—1 lobe completed. (Do not BO.)

Work 4 more lobes as foll:

Repeat Rows 1–38 four more times for 5 lobes total. BO all sts. Cut yarn, leaving a 15" (38 cm) tail.

Finishing

With yarn threaded on a tapestry needle, sew the CO edge to the BO edge. To close the top of the hat, weave the yarn tail through the edge stitches at the crown top, and draw the yarn tight to pull the top edges of all 5 lobes together. Weave yarn through several stitches on wrong side of work to fasten off.

Felt

Felt by hand or washing machine.

Shape

Block to fit the intended wearer's head, using an appropriately sized hat stand or bowl, or by lining hat with plastic (such as a grocery bag) and blocking over the wearer's head. Fold up the straight section at the bottom to make the brim. Allow to dry thoroughly.

Finished size

After felting: 22" (56 cm) circumference.

Yarn

CYCA #4 Medium (worsted-weight) wool yarn: 440 yd (402 m) total. Hat is made with 2 strands held together. Shown here: Cascade 220 (100% wool; 220 yd [201 m]/100 g), color #9474 plum, 2 skeins.

Needles

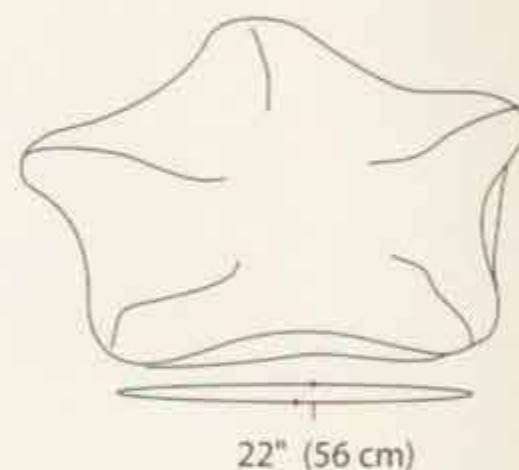
U.S. size 13 (9mm): straight or circular (cir).

Notions

Stitch markers; tapestry needle.

Gauge

11½ sts and 22 rows = 4" (10 cm) in garter st with yarn held double (before felting).





Short-row Slippers

If you've never knitted socks, this is a great project to learn the techniques—the slippers are worked at a big gauge, and the felting will hide any mistakes you might make. An expert sock knitter will be able to crank out these oversized anklets by the dozen. The heel and the toe are worked in garter stitch short-rows, adding thickness in the parts of the slipper that get the most wear. Get a perfect fit by blocking it over the intended wearer's foot. Directions are given for three sizes of slippers, which can be felted and blocked to fit a wide range of sizes.

Finished size

Before felting: 9 (12, 15)" (23 [30.5, 38] cm) from heel to toe.

After felting: To fit feet 5–7 (6–10, 8–13)" (12.5–18 [15–25.5, 20.5–33] cm) from heel to toe.

Slipper shown here measures about 10½" (25.5 cm) from heel to toe.

Yarn

CYCA #4 Medium (worsted-weight) wool-blend yarn: about 100 (150, 190) yd (91.5 [137, 174] m) in each of 2 colors.

Shown here: Lorna's Laces Bullfrogs and Butterflies (85% wool, 15% mohair; 190 yd [174 m]/100 g): Carol Green (MC) and Lakeview (CC), 1 skein each.

Needles

U.S. size 8 (5 mm): set of 5 double-pointed (dpn).

Notions

Tapestry needle; about 18" (45.5 cm) smooth waste yarn for provisional cast-on.

Gauge

18 sts and 24 rows = 4" (10 cm) in St st before felting.

Note: When in doubt, make the larger size. It's usually easier to shrink a piece that's too big than to stretch out one that's too small.

Knit

Toe

With MC, CO 20 (24, 30) sts using provisional cast-on (see Glossary, page 122). Work back and forth in short-rows (see Glossary, page 125) as foll:

Row 1: Knit to 1 st before end of row, wrap next st, turn work (w & t).

Row 2: Knit to 1 st before end of row, w & t.

Row 3: Knit to 1 st before last wrapped st, w & t.

Row 4: Knit to 1 st before last wrapped st, w & t. Rep Rows 3–4 until 6 (6, 8) unwrapped sts rem and there are 7 (9, 11) wrapped sts on each side.

Continue working in garter st (knit every st on every row), knitting wrap and st tog, as foll:

Next row: Knit to first wrapped st, work wrap and st tog, turn work (do not wrap the next st).

Rep until all wrapped sts have been worked. You have formed a little cup with 20 (24, 30) live sts on one side and the provisional CO on the other. Divide the live sts evenly between 2 dpns, and remove scrap yarn from the provisional CO and divide the 20 (24, 30) exposed sts evenly between 2 more dpns—40 (48, 60) sts divided evenly between 4 dpns. Knit 1 rnd.

Instep

Change to CC and work 30 (42, 54) rnds in St st (knit every st on every rnd).

For larger sizes:

To make slippers larger than the sizes given here, cont in St st until slipper measures about 30% longer than the wearer's instep from front of ankle to toes.

Heel

Change to MC and k20 (24, 30) sts; turn work. Working in garter st, beg short-row shaping for heel exactly as for toe until 6 (6, 8) sts rem in the center and there are 7 (9, 11)

wrapped sts on each side. (If you wish, you may transfer the 20 [24, 30] instep sts to a holder.)

Continue working in garter st, knitting wrap and st tog, as foll:

Next row: Knit to first wrapped st, work wrap and st tog, turn work (do not wrap the next st). Rep until all wrapped sts have been worked.



completed slippers, unfelted

photo by Christine Olney



Cuff

If necessary, replace instep sts on 2 dpns so that all sts are divided evenly on 4 dpns. Change to CC and resume working in the rnd. Work 6 rnds in St st. Change to MC and knit 1 rnd.

Work I-cord BO as foll:

With MC, CO 3 sts. *Knit the first 2 CO sts, then knit the third CO st tog with first st of slipper. Slip 3 sts from the right needle to the left needle. Rep from * until all sts of slipper have been bound off. Cut yarn, leaving a 12" (30.5 cm) tail. With tail threaded on a tapestry needle, use Kitchener st (see Glossary, page 123) to graft ends of I-cord together.

Felt

Weave in all ends. Felt by hand or washing machine until the slippers are the same or just barely smaller than the desired finished size. Trim all ends even with the fabric.

Shape

For a perfect custom fit, have the intended wearer put a thin sock and a plastic bag on each foot. Put the barely damp slippers on over the bags and keep them on until they mold to the shape of the feet. Once the desired shape and size have been reached, remove slippers to finish drying. If the wearer is not available, stuff the slippers loosely with towels or clean paper and allow to dry.



Newsie

Knitted with a classic tweed yarn, but in a hot shade of orange, a newsboy cap can be as classic or as funky as your own personal style. This version borrows its name from the movie musical *Newsies*, in which Christian Bale wore his tweed hat to lead the paperboys in rebellion, but the style has come a long way. The pattern is knitted in one piece from the top down. The cast-on with double-pointed needles is a little tricky, but from there on it couldn't be easier.

Finished size

Before felting: About 20 (25)" (51 [63.5] cm) circumference.

After felting: To fit 19–21 (22–24)" (48.5–53.5 [56–61]) cm head circumference.

Yarn

CYCA #4 Medium (worsted-weight) wool yarn: 175 yd (160 m).

Shown here: Cascade 220 Tweed (100% wool; 220 yd [201 m]/100 g), color #603 burnt orange, 1 skein.

Needles

U.S. size 10½ (6.5 mm): set of 5 double-pointed (dpn) and 16" (40 cm) circular (cir), optional.

Notions

Tapestry needle; heavy cardboard for blocking.

Gauge

15 sts and 22 rnds = 4" (10 cm) in St st with yarn used singly.

Note: If necessary, wind your yarn into a center-pull ball, so that one end is available from the center of the ball and one end from the outside, to work two strands together for the band and brim.

Knit Crown

CO 4 sts. Place 2 sts each on 2 dpn. Join for working in the rnd, being careful not to twist sts.

Rnd 1 and all odd-numbered rnds: Work in St st (knit every stitch of every rnd).

Rnd 2: *K1, M1 (see Glossary, page 124); rep from * to end of rnd—8 sts.

Rnd 4: Dividing sts evenly onto 4 dpns as you go, *k1, M1; rep from * to end of rnd—16 sts.

Rnd 6: *K2, M1; rep from * to end of rnd—24 sts.

Rnd 8: *K3, M1; rep from * to end of rnd—32 sts.

Rnd 10: *K4, M1; rep from * to end of rnd—40 sts.

Rnd 12: *K5, M1; rep from * to end of rnd—48 sts.

Cont to inc on even-numbered rnds, working 1 more st between incs on each inc rnd, for a total of 26 (30) rnds—104 (120) sts. Change to cir needle when there are enough sts to work comfortably. Work 4 rnds even in St st.

Dec rnd 1: *K11 (13), k2tog; rep from * to end of rnd—96 (112) sts rem.

Knit 1 rnd.

Dec rnd 2: *K10 (12), k2tog; rep from * to end of rnd—88 (104) sts rem.

Knit 1 rnd.

Dec rnd 3: *K9 (11), k2tog; rep from * to end of rnd—80 (96) sts rem.

Knit 1 rnd.

Dec rnd 4: *K8 (10), k2tog; rep from * to end of rnd—72 (88) sts rem.

Purl 1 rnd to make ridge on RS of hat.

Hatband

Rnd 1: Holding 2 strands of yarn tog, *k2, p2; rep from * to last 4 st, k2, p2tog—71 (87) sts rem.

Rnd 2: *P1, k2, p1; rep from * to last 3 sts, p1, k2.

Rnd 3: *P2, k2; rep from * to last 3 sts, p2, k1.

Rnd 4: *K1, p2, k1; rep from * to last 3 sts, k1, p2.

Rnd 5: *K2, p2; rep from * to last 3 sts, k2, p1.

Brim

Cont with 2 strands of yarn, change to garter st (knit every st on every row) and work short-rows (see Glossary, page 125) without wrapping the turning st, as foll:



photo by Christine Okey

completed hat, before felting

Short-row 1: K20, turn work, leaving rem sts on needle.

Short-row 2: Sl 1, k21, turn work.

Short-row 3: Sl 1, k23, turn work.

Short-row 4: Sl 1, k25, turn work.

Short-row 5: Sl 1, k11, M1, k4, M1, k12, turn work.

Short-row 6: Sl 1, k31, turn work.

Short-row 7: Sl 1, k13, M1, k6, M1, k14, turn work.

Short-row 8: Sl 1, k37, turn work.

Short-row 9: Sl 1, k39, turn work.

BO all sts firmly.

Felt

Felt by hand or washing machine.

Shape

While cap is still wet, stretch the top circle over a heavy cardboard circle cut to fit inside cap (about 8–10" [20.5–25.5 cm]) to create an even circle with a crisp edge. (You may substitute an appropriately sized plate for the cardboard, if you have one.) At the same time, gently stretch and mold the brim so that it stands out and away from the hatband. Don't be afraid to tug the brim into shape. After the hat is dry, steam or iron the brim to achieve the desired shape, if necessary.

Make it yours

If you'd like to finish the top with a button, use your leftover yarn and the instructions on page 64 to make a felted bead that matches the hat.





Karaoke Wrap

We chose a yarn that is 50% wool and 50% soy fiber because it felts into a thin fabric that drapes beautifully and is super soft. You can swatch another 50/50 blend yarn for this pattern if you like, but we recommend making an extra-large swatch (at least 12" x 12" [30.5 x 30.5 cm] after felting) so you can see how it drapes. The triangular insets, called godets, are knitted so that the rows run perpendicular to the rest of the fabric. This makes them felt differently—the godets shrink in the opposite direction from the main body of the wrap to form scallops along the bottom edge.



Finished size

After felting: 62" (157.5 cm) across top edge; 26" (66 cm) center front length from top edge to lower point.

Yarn

CYCA #4 Medium (worsted-weight) wool blend yarn: 880 yd (805 m) MC and 330 yd (302 m) CC.

Shown here: South West Trading Company Karaoke (50% wool/50% Soysilk fiber, 110 yd [100.5 m]/50 g): color Tobacco (MC), 8 balls, and Copper (CC), 3 balls.

Needles

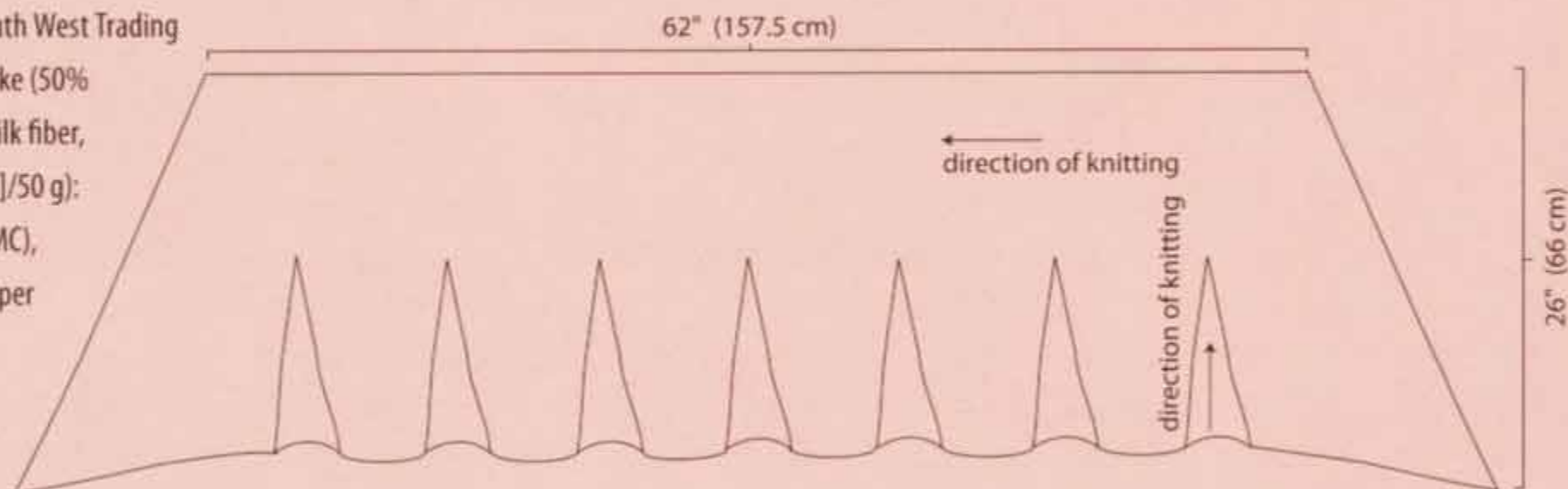
U.S. size 9 (5.5 mm): circular (cir), 16" (40.5 cm) or longer; Size H/8 (5mm) crochet hook.

Notions

Tapestry needle; split-ring markers; waste yarn for provisional CO (optional).

Gauge

17½ sts and 21 rows = 4" (10 cm) in St st before felting.



Knit

With MC and using backward-loop or cable method (see Glossary, page 121), CO 4 sts.

Increase section

Row 1: (WS) P4, CO 4 sts.

Row 2 and all even-numbered rows: Knit.

Row 3: P8, CO 4—12 sts.

Row 5: P12, CO 4—16 sts.

Row 7: P16, CO 4—20 sts.

Row 9: P20, CO 4—24 sts.

Row 11: P24, CO 4—28 sts.

Row 13: P28, CO 5—33 sts.

Row 15: P33, CO 5—38 sts.

Row 17: P38, CO 10—48 sts.

Row 19: P48, CO 10—58 sts.

Row 21: P58, CO 10—68 sts.

Row 23: P68, CO 10—78 sts.

Row 25: P78, CO 10—88 sts total. Insert split-ring marker in last CO st.

Straight Section

Cont with MC, work even in St st (knit every st on every RS row; purl every st on every WS row) until work measures about 8" (20.5 cm) from ring marker at top edge, ending with a RS row (see schematic, page 59).

*Next row: (WS) BO 55 sts, purl to end of row—33 sts rem.

Next row: (RS, split CO row) K33, CO 55 sts—88 sts total.

Work even in St st for about 8" (20.5 cm), measured from last split CO row, ending with a RS row.

Repeat from * 6 more times, for a total of 7 splits. Work even until piece measures about 8" (20.5 cm) along top edge from

last split CO row, ending with WS row. Remove marker.

Decrease section

Row 1: (RS) With MC, beg at top edge BO 10 sts, knit to end—78 sts.

Row 2 and all even-numbered rows: Purl.

Rows 3, 5, 7, and 9: BO 10 sts, knit to end—38 sts rem after Row 9.

Rows 11 and 13: BO 5 sts, knit to end—28 sts rem after Row 13.

Rows 15, 17, 19, 21, and 23: BO 4 sts, knit to end—20 sts rem after Row 23.

Row 25: BO rem sts.

Godet insets (make 7)

With CC, CO 24 sts.

Row 1: (WS) Purl.

Rows 2–7: Work in St st.

Row 8: K1, ssk, knit to last 3 sts, k2tog, k1. Rep Rows 1–8 four more times—14 sts rem after fourth rep is completed.

*Work 3 rows even in St st.

Next row: K1, ssk, knit to last 3 sts, k2tog, k1.

Rep from * 4 more times—4 sts rem after fourth rep is completed.

Final row: Ssk, k2tog; pass ssk over k2tog.

Cut yarn, leaving a 4" (10 cm) tail; thread tail through rem st and pull snug to tighten.

Assemble and trim

Insert godets

Pin godet into opening, easing where necessary. With a 20" (51 cm) strand of MC

yarn threaded on a tapestry needle, sew the godet insets into split openings using mattress stitch. Re-thread yarn as necessary. Rep for 6 more godets. Weave in all ends.

Crochet top border

With CC, crochet hook, and RS facing, double crochet (see Glossary, page 123) up side edge, across top and down other side edge; do not crochet along bottom edge. Weave in ends.

Felt

Felt by machine method (strongly recommended over hand felting for this project).

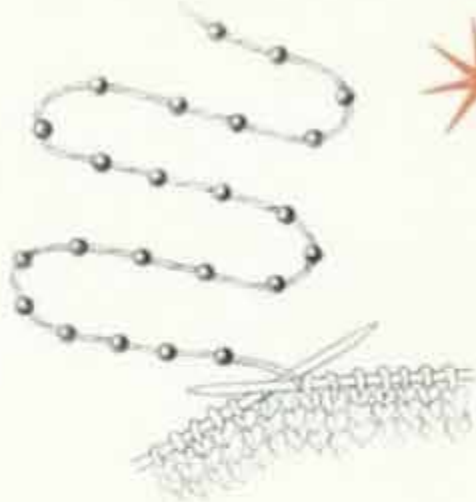
Shape and Finish

Dry flat or on a mannequin to prevent stretching. The soy fiber and wool blend yarn felts with a very fuzzy finish. If you do not like this look, you can neaten it by brushing over it with a plastic bristle hairbrush, as we did, or by trimming off the fuzz with a sweater shaver or scissors.



☛ If you own or have access to a mid-gauge knitting machine, you can use it to whip through the long straight sections. Just insert 2 rows of waste yarn in the places where the pattern specifies you cast off and then cast on part of a row. Then you can remove the waste yarn to insert the godets and sew the body pieces the rest of the way together.

☛ If you want to leave stitches free to knit on a border after felting, do a provisional cast-on with thick cotton yarn (crochet cotton works nicely). It won't felt when you shrink the rest of the item, and with a little effort, you'll be able to pick it out and place the live (although felted) stitches back on the needle.



Incorporating beads into felt

There are a number of ways to include beads in felted material. The best and easiest way to ensure beads are perfectly placed is to sew them on after blocking. But you can also string them onto your knitting yarn and knit them in place.

It's also possible to carry a beaded strand along with your regular yarn. Choose beads without metallic finishes, since the shiny coating will often flake off during the felting process.



Superwash textures

Several major manufacturers now make both an untreated and a superwash version of their popular worsted-weight wools. Brown Sheep Lamb's Pride and Cascade 220 are two lines that are available in both versions. By combining the superwash with the feltable wool, you can make unique textured fabrics.

Carry one strand of the untreated and one strand of the superwash together to make a loopy textured fabric, as in the blue swatch at right. Knit the two yarns in alternating stripes to create bands of solid felt interspersed with loose knit, as in the purple swatch.

Use the two yarns like separate colors in a stranded or slip-stitch pattern. A houndstooth pattern, shown here in the blue and purple swatch, makes a fabric that puckers because only every other square shrinks.



Using grommets and other types of metal

Grommets are small interlocking metal rings that would slip through regular knit fabric in a heartbeat. But felt is thick enough to support them, and you can create some interesting effects. There are different types of grommet-setting machines, commonly available at craft and hardware shops, and each has its advantages. The cheaper option is a hammer-set kit. It includes a punch to create a hole in the fabric, a metal base, a setting tool, and the grommets themselves. The other type of kit includes a special pair of pliers that are used to punch a hole and then squeeze the sides of the grommet together. With either method, arrange the interlocking metal rings on either side of a hole in the fabric, then set them so that the front piece goes through the back piece and bends around it to lock in place. The pliers are quieter to use and don't have a lot of little pieces to lose, but the hammer set is easier if you have small hands or have to strain to squeeze the pliers.

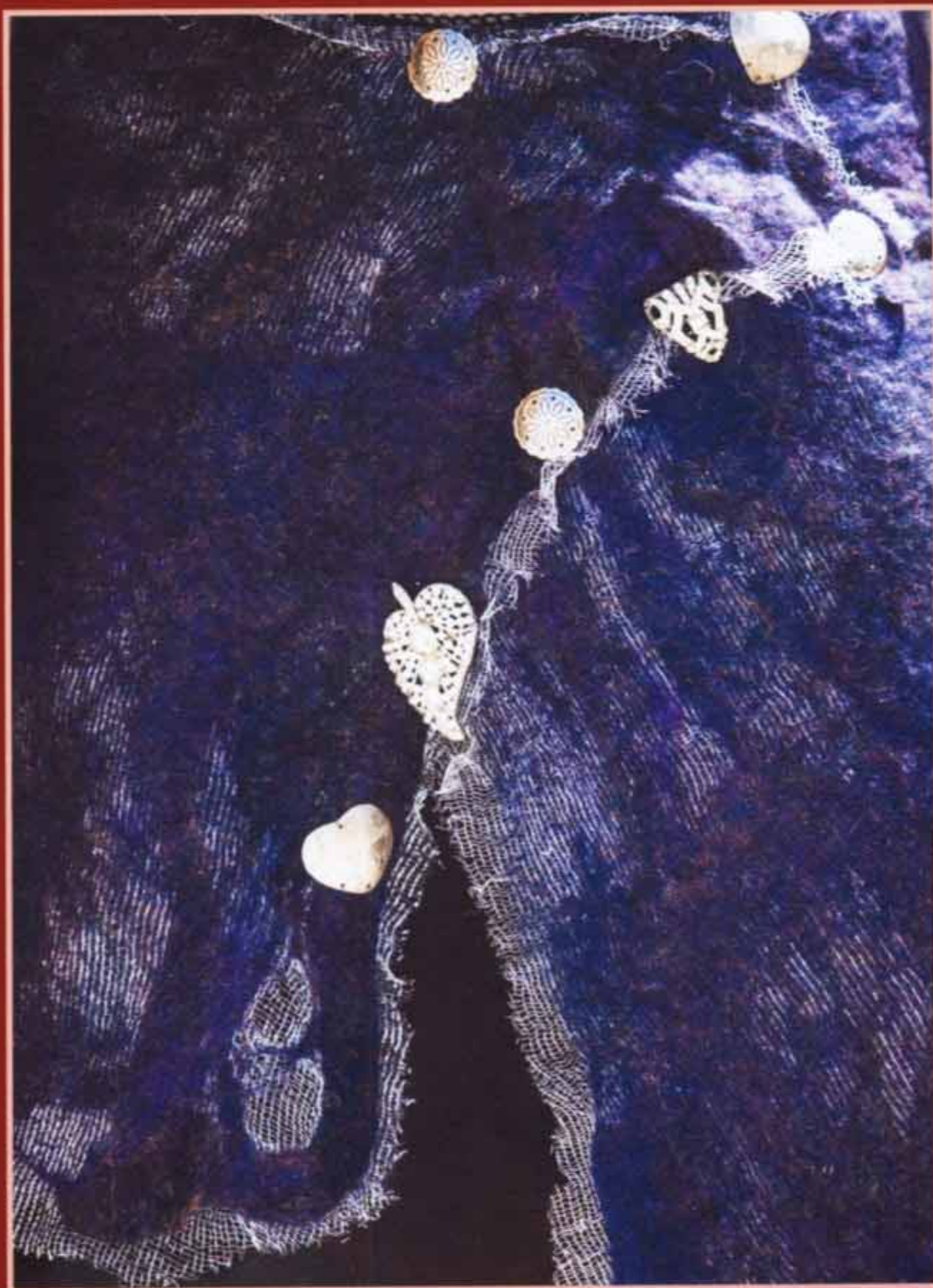
Don't stop with grommets! You can also get eyelets in different shapes and colors, studs with or without rhinestones, and other metal embellishments in all kinds of crazy shapes. Scrapbooking and craft shops are a great source of metal pieces that you can attach to hats, purses, and more. Pieces with holes or loops on either side can be stitched into place with matching yarn, which will felt invisibly into the background fabric.

design ideas

Chapter Two



Wet Felting



Though many knitters get their introduction to handmade felt through a knitted and felted bag, hat, or slippers, traditional felting is a process much older than knitting. Felted fabric existed before weaving and even before yarn or thread, because unlike these other types of textiles, felt is so easy to make that you can do it by accident. Feltmaking is very accessible to people of any skill level and requires little or no specialized equipment. You can get started with just a handful of wool and a sink of hot, soapy water.

Tools

To make lengths of felted fabric or long felt scarves, you'll need a special felting surface that's big enough to hold your whole piece but rolls up to a manageable size for felting. Bamboo window blinds are great for this, since they're very flexible, heavily textured, and usually at least six feet (about 1.8 meters) long. You will sandwich your fiber in between two layers of fabric to protect it, then roll it up in the blind. The agitation that encourages the fiber to felt comes from rolling the bundle back and forth and putting pressure on it.

An alternative way to make a felting surface is with large sheets of bubble wrap or swimming pool liner, which is a similar material, but thicker and more durable. Again, these are materials that have a lot of texture to provide friction for felting, but unlike the bamboo, they can be cut to any custom size. One thing to keep in mind if you're using plastic to roll your sheets of felt is that it's non-porous, so you'll need to open up the bundle to make sure soap and water are getting all the way to the center of the fiber.

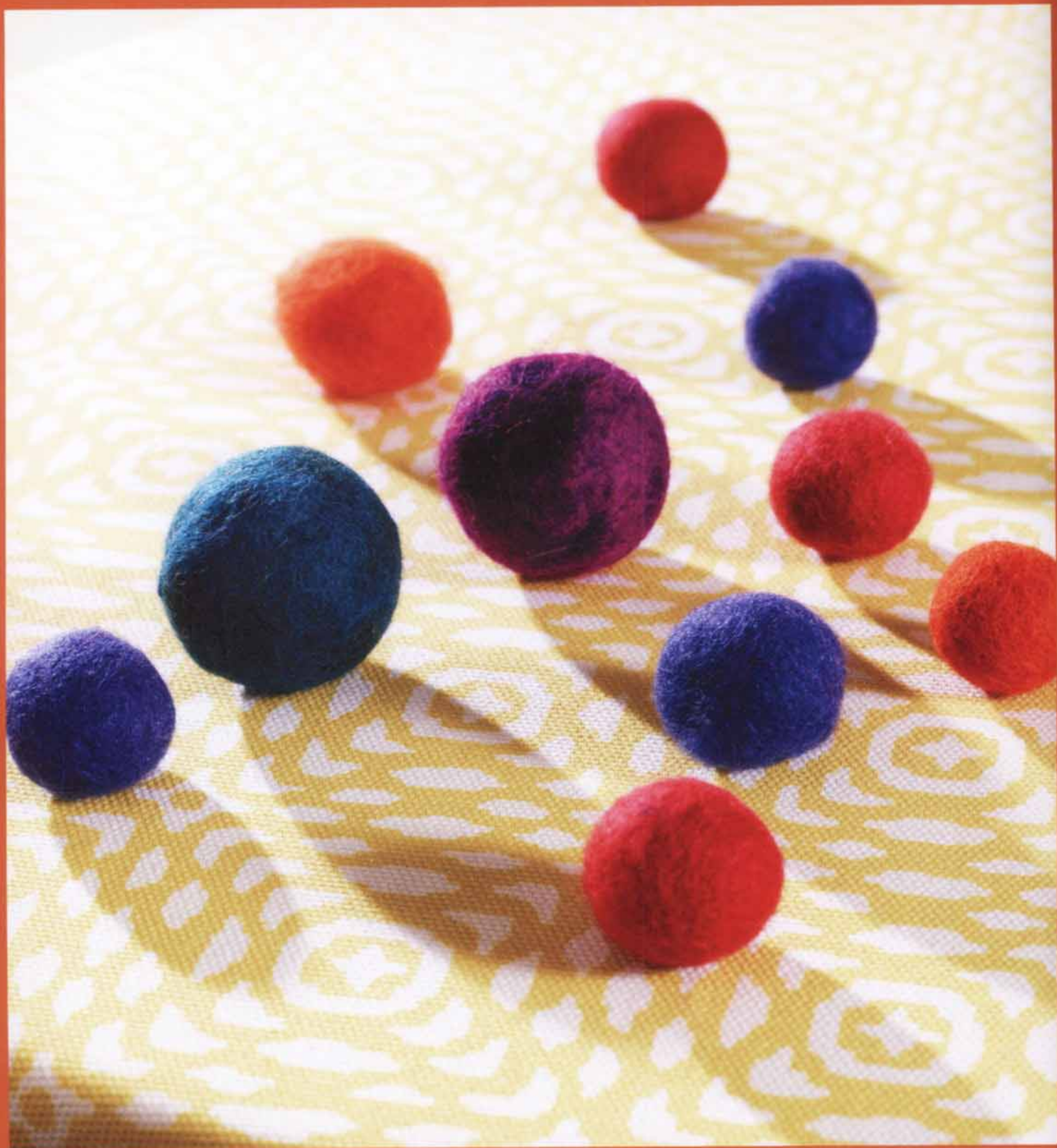
You may find, especially if you're making very large sheets of felt, that your fiber bundle is easier to work with if you have some kind of core to roll it around. You can use a large dowel or closet pole for this, but an even better option is a pool noodle—those long foam floating pool toys available at pool stores and discount stores in the summer—which is firm but flexible and also waterproof.



photo by Christine Okey

Wet felting for knitters

Even if you prefer to make felt from knitted items rather than starting from unspun fiber, it's worth knowing the techniques of wet felting. There are times when you may actually want or need to felt an item by hand. Sometimes items felt a little unevenly in the machine, and you'll want to touch them up after the fact by hand felting just a small area. Perhaps you only have one tiny item to felt (for example, we like to make coin purses out of leftover yarn from our felted bags so we have matching sets); it would be too wasteful to run a whole washer cycle just for that.



Balls and Beads

Making felt balls from roving or yarn scraps is an easy introduction to wet felting and a great project to do with kids. Use the finished balls and beads as perfectly matched buttons and embellishments for other knitted or felt projects you've made or string them like beads to make unique jewelry. They can also be cut, sewn, and glued. Make them in any size, from tiny beads to the size of a play ball.



Finished size

$\frac{1}{4}$ "–3" (2–7.5 cm) in diameter.

Materials

1 oz (28 g) or less of wool per ball, depending on size.

Shown here: Ashford Corriedale sliver, assorted colors.



Prepare

You can make the balls one solid color, layer many colors, or wrap contrasting stripes of roving or yarn around the outside to decorate the balls. Wind the selected roving into tight balls so that they won't fall apart when they get wet. Remember, they may shrink to half their original size during felting.

Felt

In a bowl or sink of hot, soapy water, submerge each ball of wool and squeeze gently so that the water gets all the way to the center. Gently pat and turn the wet

ball in your hands until it starts to felt. When the ball begins to shrink and becomes cohesive, you can roll it between your hands or on a felting board. Apply some pressure to make sure it felts all the way through to the center.

Finish

When you are pleased with the size and shape of the felt ball, rinse it in cool water and squeeze out the excess 2 or 3 times to remove all the soap, then set it somewhere warm to dry.

Try this...

If you need to make many beads or buttons at once, you can roll the balls of wool and knot them into an old nylon stocking or pair of tights to felt them in the washer. You may need to run more than one cycle, and you can also dry them in the clothes dryer. You will probably need to cut them out and pull them carefully away from the tights or stockings, since the wool can become tangled in the thin material.



Finished size

Custom (varies with size of soap bar).

Materials

1 oz (28 g) or less of wool per bar of soap; small to medium-sized bar of soap, preferably handmade or French-milled. ("Cleansing bars" or pH-neutral glycerin soaps won't produce the desired results.)

Shown here: Assorted sliver in 3 colors, Brown Sheep Lamb's Pride Worsted (85% wool/15% mohair, 190 yd [174 m]/100 g) color M173 Wild Violet, less than 1 yd (.9 m); bar of soap, about 4" (10 cm) long, 2½" (6.5 cm) wide, and 1" (2.5 cm) tall.

Notions

1 foot from a pair of nylon stockings or tights (optional).

Sheepy Scrubbing Soap

A bar of soap in its own woolly shell will help keep you extra clean. This is another good project for kids (to wash their grimy hands and make something useful at the same time). The slightly rough texture of the wool felt is very effective for scrubbing your hands clean or gently exfoliating in the bath. And, of course, the kind of soap that works well for this project is also great for making other kinds of felt, so this is a good item to have in your supply kit. As you use the soap, the felt will continue to shrink down around it.

Prepare

If your bar of soap has any sharp corners, you may want to round them off with a utility knife, since they will be harder to keep covered with the felt shell than rounded edges. Wrap at least three layers of wool around the bar of soap, each layer perpendicular to the previous layer to secure it. (You may place the wool-wrapped soap in the foot of the stocking, to avoid displacing the wool as you felt it, or tie a length of feltable yarn around the wool to hold it in place.)

Felt

Dunk the bar in clean hot water, and pat gently until the wool begins to felt. (You don't need to add soap to the water, because the soap will lather from the inside.)

Continue rubbing and scrubbing the bar of soap until the felt shell shrinks tightly around it.

Finish

When the wool is securely felted around the soap, rinse it quickly in cold water.

Make it yours

If you have frequent houseguests, a personalized felt scrubbing soap can make them feel especially welcome. Wrap a bar in their favorite colors or lay out their initials in yarn scraps and felt them into the surface.



Wrap soap with wool



Scrub the bar until the wool felts tightly around the ball

Instructional photos by Christine Olney



Snuggle Scarf

This is an extremely easy project that makes the softest, warmest scarf you will ever own. It's also a great chance to experiment with blending fibers or colors. If you have access to the equipment, you can card your own fiber blends; if not, you can purchase interesting batts and rovings or arrange different colors and fibers in layers. For our scarf, we used a gorgeous hand-blended wool batt that weighed about 3½ oz (99 g). Depending how wide or skinny you want your scarf, you may use more or less wool.

Finished Size

About 8" (20.5 cm) wide and 72" (183 cm) long.

Materials

About 3½ oz (99 g) merino or other "next to the skin" soft wool.

Shown here: Grafton Fibers merino batt.

Notions

About 2 yd (183 cm) tightly woven sheer synthetic fabric (to use as liner to cover bamboo blind); bamboo blind to fit standard size windows (or pool liner of equivalent size).

Prepare

Lay out your felting surface. We used a cheap bamboo blind purchased at an import store and cut off any cords or drapery hardware. (They'd just get in the way or, worse, damage the bathtub.)

To keep the fiber in place and prevent it from getting tangled in the blind, place liner fabric on top of it before you arrange your fiber. We recommend using a tightly woven, sheer synthetic fabric, which is difficult for wool to stick to. It's also slightly transparent, so you can monitor your progress without opening the project all the way up. We've found that curtain sheers (check discount and thrift stores!) or the metallic see-through polyester sold in the sew-your-own-prom-dress section of the fabric store work well and are usually cheap. Make an effort to find a fabric you can see through and one that will hold up well for repeated uses.

Once you've rolled out your blind on a flat surface and spread one layer of liner fabric over it, arrange your fiber. Because we used a batt, all we had to do was roll it up into a long skinny tube and

stretch it just a little to make it an appropriate scarf length. If you're using roving or hand-carded rolags, you will probably need to lay out the wool in layers. If you arrange each layer perpendicular to the one beneath it, your felted fabric will be stronger. Remember, the fiber will compress during felting, so it should be at least twice as thick as you want the finished scarf.

Once your wool is arranged on the fabric, cover it up with a second curtain or layer of liner fabric and, starting from one end, roll it up inside the blind. You may want to secure the roll with rubber bands or by tying it.

Felt

Fill your bathtub (or sink or washtub, if they're large enough) several inches deep with hot water, then add soap. Place your felting roll into the tub only after you've turned off the tap. If running water hits your fiber directly, even through the bamboo and the liner fabric, it will displace it and make holes or divots in your scarf.

Roll the whole bundle around in the hot water until it's saturated to the middle. When the whole thing is soaking wet, let the excess water drain out of the tub. Continue rolling the blind back and forth for 5–10 minutes. It's not necessary to apply a lot of pressure at this stage; just let the texture of the blind do the work.

Open up the roll a little after several minutes to check that your fiber is felting. When you're sure that the fabric is coming together, roll it up in the other direction so that the other end is in the center of the bundle to help both ends felt evenly. You can do this without removing it from the tub by rolling it directly from one end to the other like a scroll.



Batt laid out on surface and liner



Cover batt with second liner



Roll up the bamboo blind

To check the degree of felting, pinch the fibers on the surface of the fabric and tug gently—if they stretch away from the fabric, or if the felt seems to pull apart in layers, you need to keep working.

Continue rolling the bundle back and forth. Once the felt starts to come together, you can be more vigorous with it, applying pressure and mashing down on the bundle. It should take 30–45 minutes until it's felted enough to be wearable.

Finish

When you're satisfied with the degree of felting, take apart the whole bundle and lay the scarf out flat to dry. Make sure your bamboo blind and liner fabric also have space and air to dry out, or they can mildew.

If the scarf is felted well enough to hold together and you'd like to finish it off without hunching over the tub any longer, send it through one cold cycle in the washing machine to lock the fibers in place and shrink the piece just a tiny bit, then spin the water out before you lay it out to dry. If you don't want it to shrink any smaller, you can also let the machine fill with cold water, turn it off so the scarf can soak without agitation, and then skip to the spin cycle.





Nuno Felt Wrap

Nuno (or laminated) felt is a technique developed by artist Polly Stirling. It consists of wool fiber felted into a lightweight base fabric. The resulting fabric is thin, drapey, and can be used for a variety of applications, like this warm but lightweight wrap embellished with chain stitch embroidery. Using a fine, short-staple wool like merino is especially important, since the fibers have to penetrate a layer of fabric to felt together. While you can use a bamboo shade for nuno felting, bubble wrap or swimming pool liner is gentler on the fabric if you're trying to make a very delicate felt.

Finished Size

Custom; wrap shown here measures about 57½" (146 cm) wide and 33" (84 cm) long. (Usable area of fabric may be slightly larger or smaller depending on the intended use and desired look.)

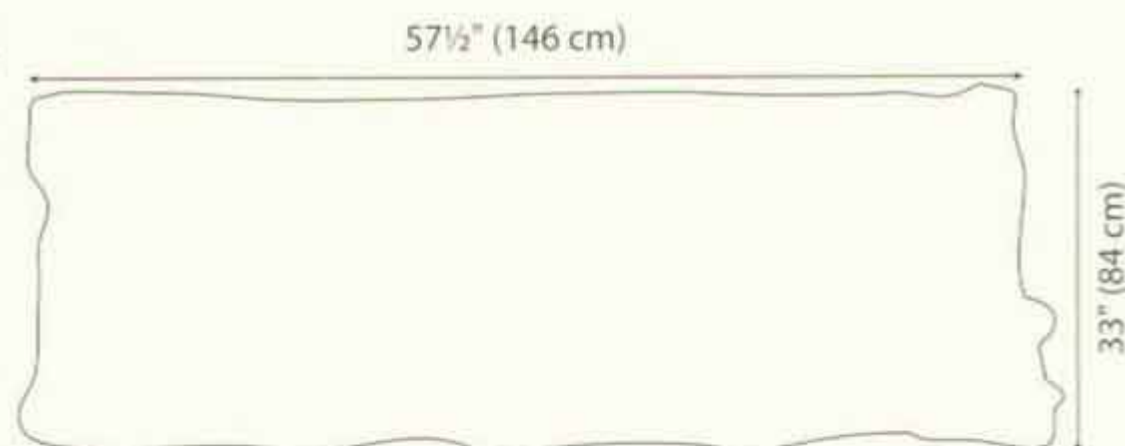
Materials

3–4 oz (85–113 g) fine wool; 1 yd (.9 m) or more of lightweight fabric (tulle, net, gauze); about 30 yd (27.5 m) crewel wool (CYCA #1 Super Fine) yarn (optional).

Shown here: Grafton Fibers batts; 1 piece black polyester netting, about 5' × 3' (152 × 91 cm); Appleton Crewel Yarn (100% wool, 27 yd (25.5 m): #623 Flamingo, 1 small skein.

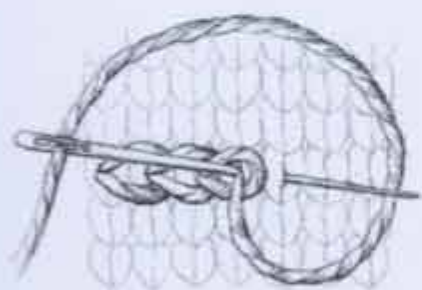
Notions

About 2 yd (183 cm) tightly woven sheer synthetic fabric (to use as liner to cover bamboo blind); 6 × 4' (183 × 122 cm) sheet of pool liner or bubble wrap; darning or crewel needle (optional); scissors (optional).





To embellish the wrap, fiber artist Katherine Shaughnessy of Wool and Hoop (see Design Ideas on page 119 and Resources on page 126) used a darning or crewel needle and crewel yarn to embroider on the finished felt. Working around the bottom of the piece, she embroidered 15 circles in varying diameters between 1½" and 4" (4.5 and 10 cm) using chain stitch. After embroidering all the circles, she carefully cut smaller circles in the center of four of them.



Prepare

Lay the blind or plastic (bubble side down) out on a large surface, and cover it with liner fabric. (See directions on page 70 for working with liner fabric.)

First fiber layer

Arrange 1½–2 oz (42.5–56.5 g) of wool in a single layer on top of the liner fabric. This should be an extremely thin layer, virtually transparent. We used two full batts for this project, so we laid out the first batt in a thin layer. If you're using one batt of wool, divide it in half and stretch one half lengthwise and widthwise, as thin as you can make it without tearing. If you're laying out fiber from one or more rovings, pull off very small sections and thin them out before arranging them.

Fabric core

On top of the first layer of wool, carefully lay out the fabric that will make the core of your nuno felt.

Second fiber layer

On top of the fabric core, begin to arrange your second layer of fiber. You may choose to make it the same or different from the first and in whatever design you like. Just remember, it needs to be very, very thin. Cover over the whole thing with a second layer of lining fabric to protect it.

Felt

If weather permits, you may want to do the next step outside with a garden hose; if not, head for the bathtub. Gently soak the fabric

with cold water and soap, without letting running water hit the wool directly. Yes, you read that right: *cold*. You want the fiber to begin to work its way through the fabric core before it felts together; otherwise each wool layer will felt only to itself and peel away from the fabric, rather than forming the special laminated construction of nuno felt. When everything is thoroughly wet, roll the entire thing up and rubber-band or tie the ends shut.

Roll the bundle back and forth gently, allowing the texture of the bundle to do the work. After 10–15 minutes, unroll the bundle and check your felting progress. If the felt is forming unevenly, use your fingers to encourage the fiber to work through the backing fabric, or rub loose spots on a washboard.

Once the fiber is grabbing through the fabric, wet it with warm water. Make sure the water isn't hot because you still want to work slowly. Open the bundle and roll it up again from the opposite end, then continue to roll it on a flat surface. Once the fiber has started to felt together, you can work it more aggressively.

Finish

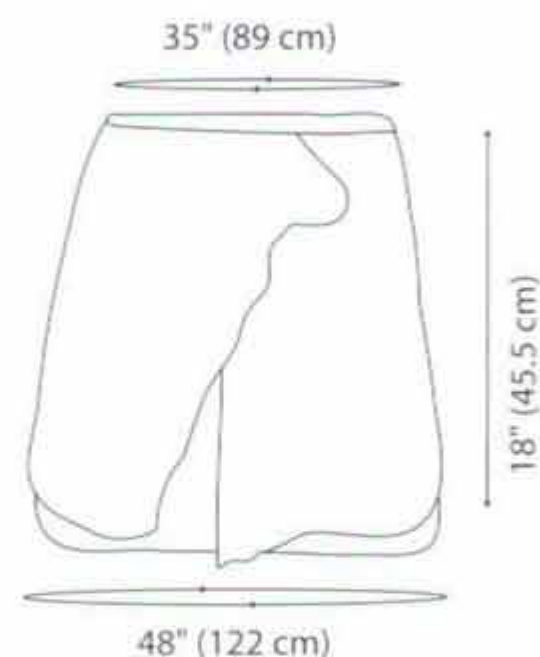
When you're satisfied with the degree of felting, and you're sure the fiber has felted into the fabric core throughout the piece, give it a final rinse to remove all the soap. Remove the felt from the bundle and lay it out to dry flat. You may wish to pin it to a blocking board to fix its shape.

When the felt has dried completely, you may want to trim the edges of the fabric even.

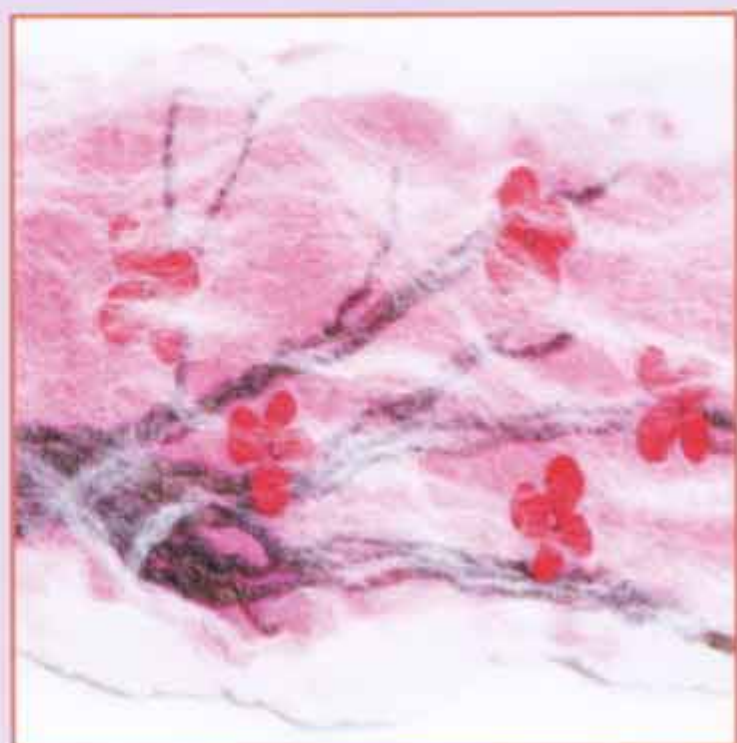
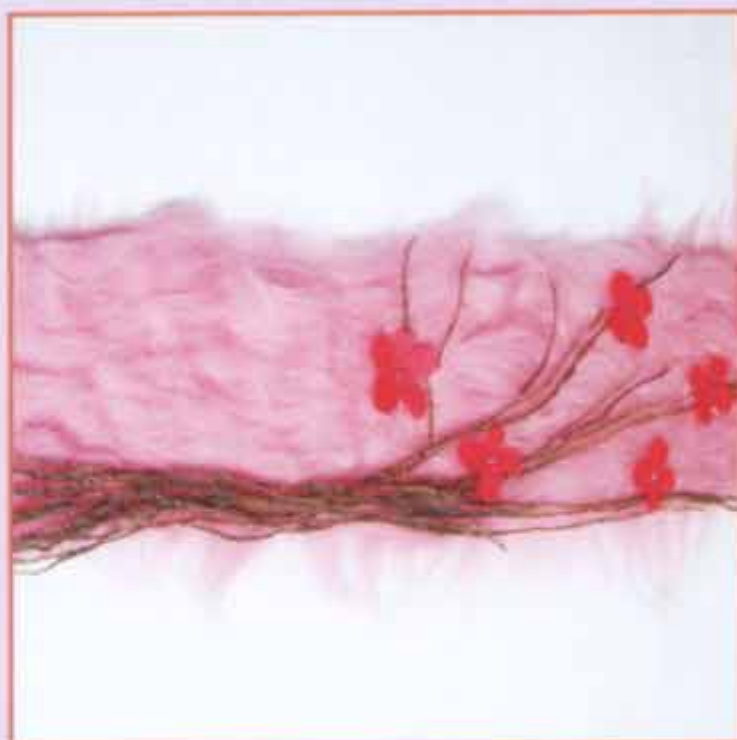


Make a skirt

Take advantage of the lighter weight and drape of Nuno felt to create wearable art and unique clothing. Using a synthetic silver mesh fabric, which complemented the sparkle of our blue Corriedale cross shimmer batt from Grafton Fibers, we created a piece of Nuno felt 18" (45.5 cm) wide and 36" (91.5 cm) long. Designer Alexandra (Xan) Underhill turned our felt into the gorgeous skirt shown here. She wrapped the piece of felt around a black sliplike underskirt and stitched the felt to the skirt at the waistband, folding over the top of the felt to reveal the silver mesh core fabric. Shannon then attached 5 metal decorative brads (with points that push through the back of the fabric and fold out, just like the ones meant for paper) and sewed 2 antique jeweled brooches through the felt to secure the open kilt front.



design ideas



Layering

Wet felting is not unlike papermaking, in that you can embed just about anything between the layers of fiber. Using beads, bits of yarn, cutout shapes, or all of the above, with a bit of imagination, you can create flowing, organic shapes.

This felted cherry blossom piece started off with two thin layers of pink roving for the background color. Handspun yarn was laid out to resemble the trunk and branches of a tree, and the flowers were formed of felt cutouts and beads. A very thin top layer of white roving sandwiches the design in place and makes the whole scene look like it's enshrouded in the morning mist.

Once the design is laid out you can roll it up, beads and all, in a bamboo blind, and felt it as you would any of the other fabrics in this chapter.



Overdyeing felt

Sometimes you change your mind about the color of a formerly beloved garment or accessory. And sometimes there is a certain color effect you can only get by dyeing the finished product.

If you've ever dyed yarn or fiber, you'll find that dyeing felt is not all that different. You can use any brand of acid dye, and follow the package instructions for the most part. There are a few special considerations:

- Felt is generally a thick, dense fabric, and for your dyes to penetrate, it needs to be wet all the way through. Soak it in warm water for at least several hours to prep it and consider adding a mild detergent like Synthrapol (available from any shop that sells dyeing supplies). The Synthrapol breaks the surface tension of the water and acts as a "wetting agent" that helps the water penetrate the fabric.
- If you're planning on dyeing at the same time as you felt (both processes require heat, so why not?), leave out the soap. Most dyes need an acidic pH to strike (or adhere to) the fiber, and the alkalinity of the soap will prevent this. Instead, add a small amount of vinegar or citric acid crystals (also available wherever you purchase your dyes) to the water.
- For the lacy felt scarf shown at right, we decided to enrich the original green-and-white scarf with a darker shade of green and a blue overtone. Because this felt was thin, it took dye easily, and we took advantage of the hot water to felt the scarf more tightly, too.
- If you want to dye immediately after felting, possibly by painting the colors onto the fabric, rinse the item in a mild solution of vinegar or citric acid crystals to lower the pH after the felting process.



Surrounded with felt

By wrapping roving around different objects, you can turn plain felt balls into fun and useful objects:

- Place a small inflated balloon in the center of the ball. Once the ball has dried, pop the balloon to make a hollow ball, which you can use as is or cut open to make bowls, baskets, or cups from the two halves.
- Insert a plastic egg full of rice or beans in the center to make felt shakers, maracas, or baby rattles.
- Purchase a replacement toy squeaker at the pet store and put it in the center to make a special toy for your yarn-stealing dog.
- Felt a cat toy with a bell into the middle and sew on a tail of yarn so it's more fun for your cat to chase.



Chapter Three



Needle Felting



When you see craft felt in a store, it's usually acrylic. But we've already learned that felting is made possible by the special properties of natural protein fibers, and acrylic is decidedly unnatural. So how can that be? The answer is needle felting. Needle felting uses small, sharp needles to mechanically tangle fibers until they form a dense fabric. The needles are usually triangular in cross-section, and each side has little barbs that catch the fiber as they punch through it. The barbs catch individual fibers and drag them through the fiber mass, so the more times the needle passes through the fibers, the more thoroughly they become tangled.

Felting without water

To make sheets of craft felt, thousands of these needles are fixed into a large plate on a machine that pounces rapidly up and down on a bed of acrylic fiber. At some point, a clever feltmaker figured out that the same industrial needles could be used by hand to create appliqués and sculptural shapes. The needles can be used singly to work slowly and create fine detail, or three or more needles can be set into a special punch handle to work over a larger area.

These needles are sharp and will draw blood if you accidentally get your fingers in the way. The tiny barbs can be really painful, so be careful! Felting needles are made of hard tempered metal and will tend to break rather than bend if you put too much stress on them. It is possible to felt a ball of fibers so thoroughly that the needle can no longer be forced through and will break. If your felt is hard as a rock, you're done. Don't force it and break the needle. You also need to be careful when using a needle punch that you always move it straight up and down because twisting it could cause some or all of the needles to break. You may even want to wear safety glasses when working with a large needle punch, just to be extra careful.

Felting needles come in many sizes, from 20 gauge to 42 gauge; like wire gauges, bigger numbers indicate finer needles. Big needles will felt your fiber faster, but they can leave visible holes and pockmarks. Finer needles are better for small details and smoothing over the surface of a piece. Needles between 36 and 40 gauge are the most commonly available and are good for most applications. In addition to the standard triangular needles, other barb configurations are also becoming easier to find. One other type you may encounter is star-tip felting needles. The star shape has more barbs than the triangle, and you may notice that it felts faster.

To protect yourself and your work surface, you should always work on a thick foam pad. Blocks of



foam can be purchased from the same suppliers that sell felting needles and are available in various sizes and shapes. We recommend using 3-inch upholstery foam that you can buy from your local fabric store for most projects. It costs just a few dollars for a reasonably sized block, and you can have it cut into whatever size pads you need at the cutting counter. If you need a specially shaped block—for example, to fit into a bag or to use as a hat form—you can cut and sculpt it yourself. An electric carving knife is great for cutting foam, if you have one, or you can work slowly using a regular utility blade.

The best technique is to work lightly and push the needle just through the fiber you're felting. Forcing the needle into the foam does not help the fiber felt together and may actually either felt your project to the pad or get little bits of foam stuck to the fiber. If you stab into the foam pad a lot, it will also cause wear to the foam and you may need to replace it after a few projects. Once you get the hang of it, you can actually let the foam do some of the work for you by bouncing your needle back up through the fiber.

Needle felting can be used to make three-dimensional shapes



Monogrammed Bag

We promised to show you all kinds of ways to embellish your felted knits, and this is where we deliver. A great way to start experimenting with felting needles is to apply a monogram or a simple pattern onto another felted surface, in this case the purple Trapezoid Bag from chapter one. Once you've started, don't be surprised if you're adding your initials to anything that doesn't move!

Materials

Trapezoid Bag (see page 24); a few yd (m) of any weight yarn. (Wool yarns work best, but you can try anything you have in your stash.)

Shown here: Purple Trapezoid Bag; Brown Sheep Lamb's Pride Bulky (85% wool, 15% mohair; 125 yd [114 m]/100 g); M-78 Aztec Turquoise, 3–5 yd (2.75–4.5 m).

Notions

38-gauge felting needles; T-pins; needle-felting surface.

Note: Though we usually recommend using 3-inch-thick foam as a needle-felting surface, you may need a thinner piece for this project.



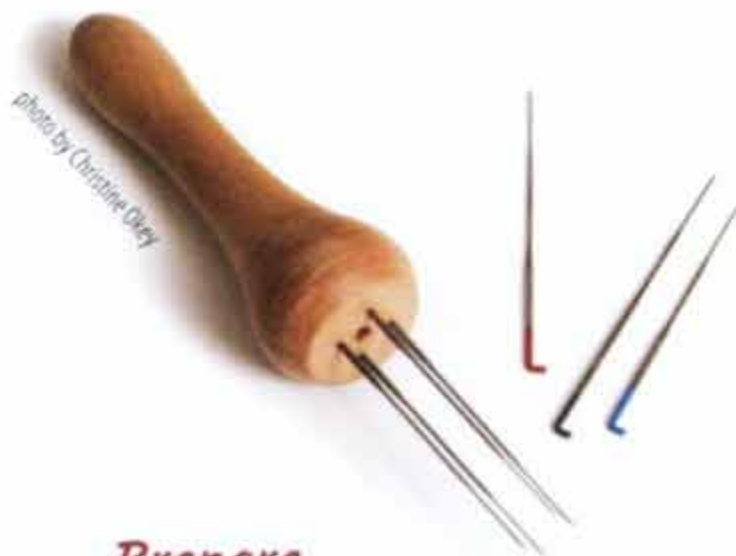


photo by Christine Olney

Prepare

Trim a block of foam to fit inside the bag and place it securely inside. Lay out the yarn in the shape of your monogram on the surface and pin it in place with T-pins.

Felt

Tack the yarn down lightly with the felting needle, paying extra attention to any places where the yarn crosses over itself. At this

stage, you are not trying to felt it thoroughly, just to keep the design from moving around while you work with it.

Continue tracing over the yarn, punching through it with the felting needle. You may want to focus on a small area at a time or work over the whole thing evenly; it depends on the size of your design and your own preference. Remove the T-pins for easier access to the monogram once the yarn is securely attached to the bag's surface.

If you have a needle punch, you may want to use it when the design is securely attached but hasn't felted completely into the fabric.

When the yarn looks like it has melted into the surface of the felt, you're done!



photo by Christine Olney

bag before monogram

 *Prepare
and felt*



1. Pin monogram in place



2. Tack yarn down lightly



3. Continue working monogram into bag surface



4. Use a needle punch to felt faster



5. Monogram completely felted into bag

all photos by Christine Okey



Bermuda Bag

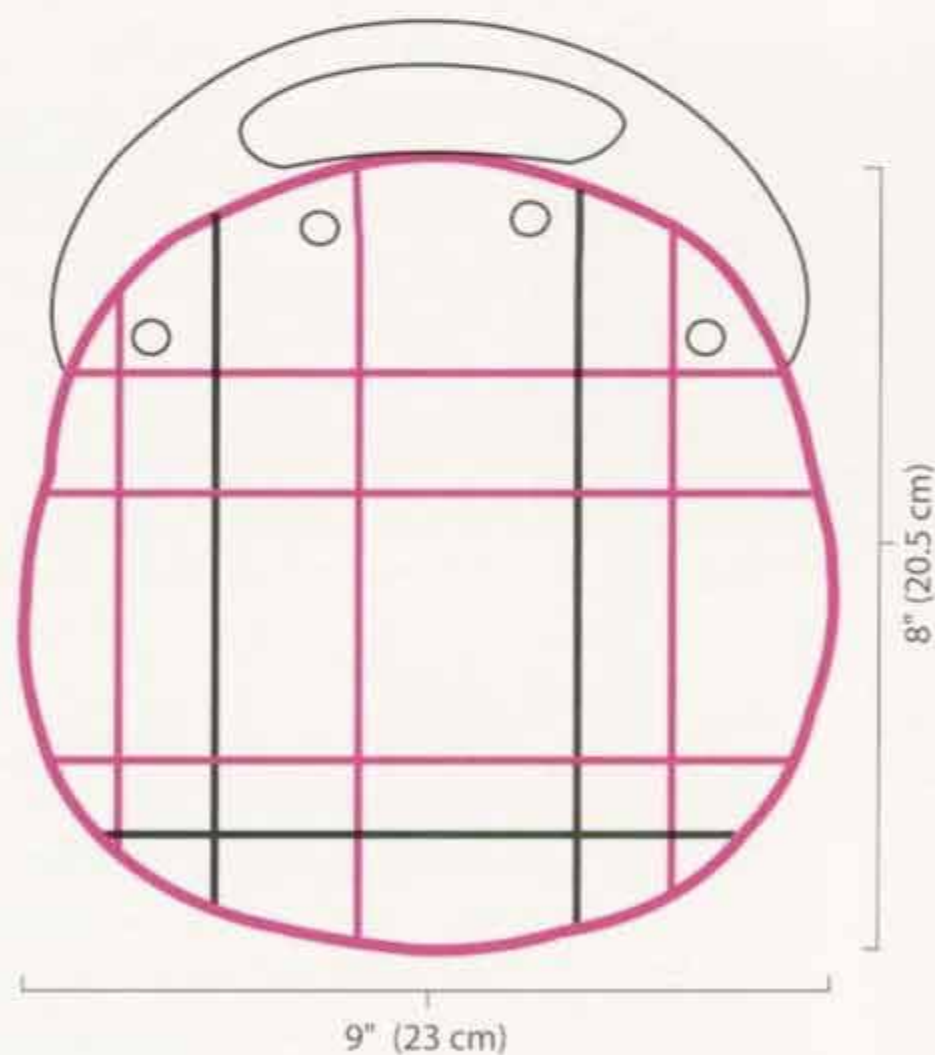
You're not limited to initials when you needle-felt with yarn—making plaid with needle-felting techniques is a snap. With this pattern, we invoke a preppy staple: the Bermuda bag. Bermuda bags feature wooden handles connected with two hinges. When fully opened, the handles lie flat. A plain fabric liner is attached to the outside of the handles, with small buttons sewn on to hold the interchangeable covers in place. Once upon a time, you could buy hundreds of different covers; some shops, such as Lilly Pulitzer, still have a small selection. Looking for a change? Just swap the cover.

Materials

$\frac{1}{2}$ yd (46 cm) wool felt (wider than your finished bag), purchased or hand-made (see pages 102–103 for recycled felt or 62–63 for traditional felt); about 6 yd (5.5 m) wool yarn in two or more colors for plaid design; Bermuda bag handles and liner, purchased or homemade (see page 87 for directions). *Shown here:* Recycled felt from thrift store sweaters; Cascade 220 (100% wool; 220 yd [201 m]/100 g): color #8555 black, about 3 yd (2.75 m); Cascade Eco Wool (100% natural wool; 478 yd [437 m]/250 g): color #7098 cranberry, about 3 yd (2.75 m).

Notions

Brown craft paper or pattern paper; 38-gauge felting needles; sewing needle and thread; needle-felting surface; 1 yd (91.5 cm) l-cord or purchased braid or cord in a coordinating color (optional).



Prepare

Draw your pattern

Trace the shape of your Bermuda bag liner onto brown craft paper or pattern paper. Draw the shape you want to make your cover outside this outline, leaving at least $\frac{1}{4}$ " (2 cm) on all sides for ease and seam allowance. (The shape of the cover does not need to match the shape of the liner exactly.) This pattern will be used for the front and back pieces of your cover.

Vintage Bermuda bags usually have a third side panel or gusset, which makes the inside space a little bigger. If you're working with a preexisting handle and liner, you should either cut the outside cover large enough to accommodate this extra depth or trace another long, narrow piece of felt to reproduce the gusset's shape onto the craft paper.

Lay out yarn design

Using the pattern you have made, pin the pattern to the felt and cut the pieces from the felt for the front and back. Arrange the first piece on top of your needle-felting surface and pin down lengths of yarn in a plaid pattern, interweaving them as appropriate. (To make the pattern your own, browse the many websites where you can look up historic tartans or generate your very own plaid pattern.)

Felt

Needle-felt each individual yarn strand onto the felt backing, using the techniques described on page 83. Lay out the second

piece of felt on the needle-felting surface and complete it the same way.

Finish

When both pieces are completely needle-felted, place them on either side of the liner and handle, and mark the buttonhole placement with pins. Cut buttonholes in the cover. If your felt is very thick, you may find it easier to use a utility knife to cut small slits or pierce the fabric with a knitting needle.

We knitted a 3-st I-cord (see Glossary, page 124) to trim the circumference of the bag and pinned it in place around the edges before sewing the front and back together. You could also sew it in place to cover the seam after sewing the front and back together. A purchased braid or cord could also be used as trim.

With right sides held together, sew together the pieces of your cover along the sides and bottom. Leave the top of the cover unstitched and open from about $1\frac{1}{2}$ " (3.8 cm) on each side of the buttonholes from X to X (see schematic, next page) to ensure that the cover can easily be removed from the liner and handles when you want to change it. (If the felt is too thick to sew the pieces together easily from the wrong side, you can sew it together with the right sides facing out, using a decorative whipstitch or blanket stitch with yarn and a tapestry needle.)

Turn the cover right side out and button it onto your bag lining and handles.



Lay out yarn in the desired plaid pattern

Bermuda bag resources and directions

If you don't have an original sitting in your attic, we'll show you how to make the iconic Bermuda bag handles and liner ... old school. Make your own by hot-gluing, stapling, or sewing a fabric liner to a hinged pair of matching wooden purse handles. Look for the wooden handles that have a groove at the bottom to attach them to a bag.

Materials

Wooden purse handles; $\frac{1}{2}$ yd (45.5 cm) muslin or other plain cotton fabric to use as liner; bias tape (optional).

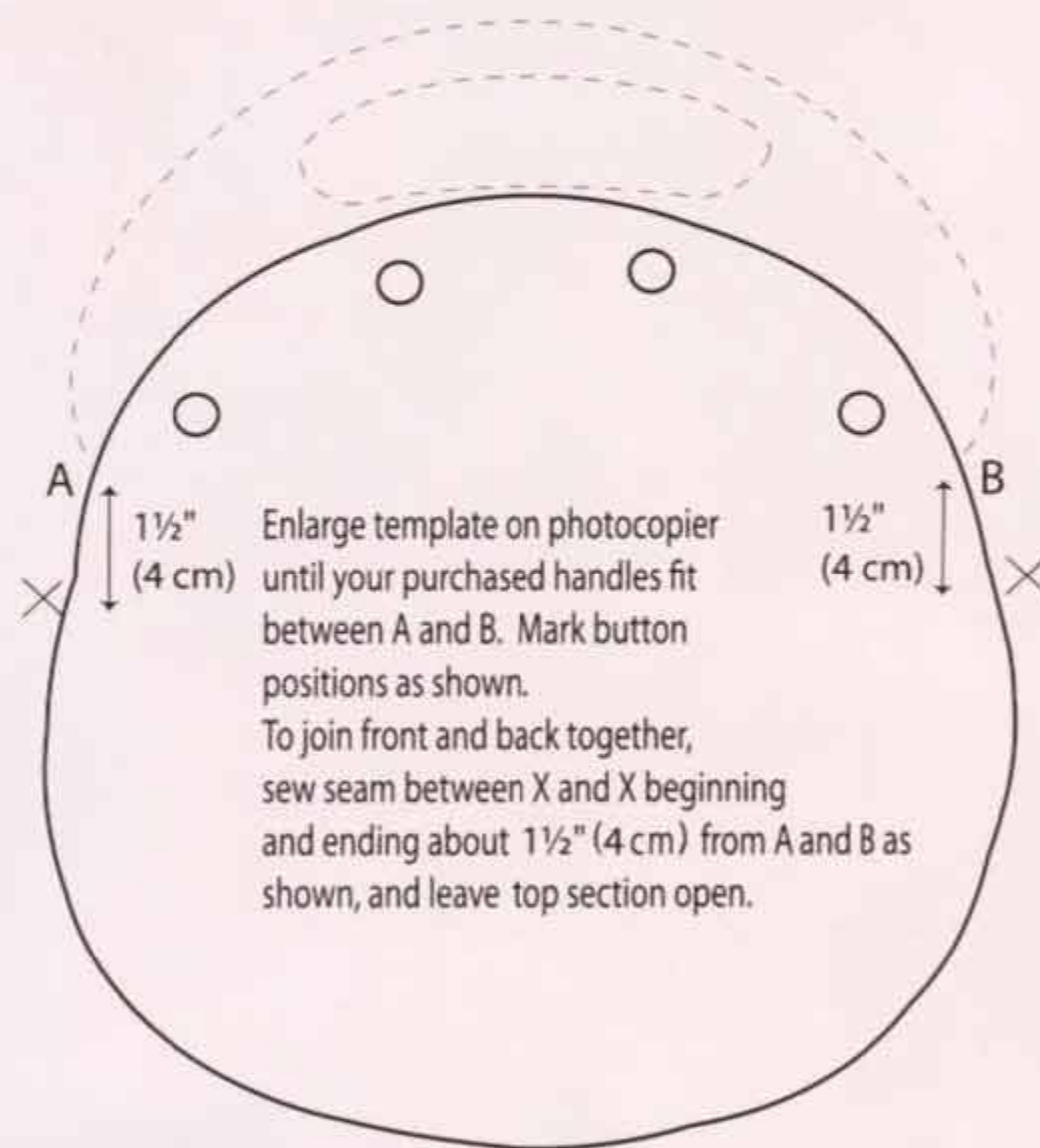
Notions

8 small shirt buttons, about $\frac{1}{2}$ " (1.3 cm) in diameter; sewing needle and thread; straight pins; staple gun or hot glue gun.

Use a photocopier to resize the template (right) so that your purchased handles fit between the points marked A and B and trace the template onto the muslin. Fold the fabric in half and cut along the tracing to make 2 identical pieces. With wrong sides facing, sew the liner between X and X, leaving a $\frac{1}{2}$ " (1.3 cm) seam allowance and the space between A and B open for the top of the bag. Turn liner right side out. Finish the cut edges by pinning and sewing on bias tape, if desired. Sew four buttons evenly spaced across the top edge of the liner on both sides. Attach liner to handles using staples or hot glue.

Make it yours

You'll want several covers to choose from to suit your mood. Don't be limited to plaid; lay the yarn out in different designs to make floral, abstract, or geometric covers. See page 102 for another idea.



Bermuda bag handles available from:
Universal Mercantile Exchange
21128 Commerce Point Drive, Walnut, CA 91789
<http://www.umei.com/>
Bermuda bag handle (Model HHBB-01)



Daisy and Lily Flowers

Because needle felting is done with dry, fluffy wool, it's easier to create three-dimensional sculptures than by wet felting. To see how this works, make a ball of wool and push a needle into it repeatedly in the same place. You'll see a dimple begin to form as the wool tangles and compresses. By working some areas more than others, you can sculpt the felt almost like clay to make any shape you can imagine. Making felt flowers can quickly become addicting! Add them to hats, bags, or anywhere you need a little extra decoration (like we did on pages 27 and 32).

Finished Size

Daisy: 1–4" (2.5–10 cm) diameter; lily: about 6" (15 cm) diameter.

Materials

Up to 1 oz (28 g) wool per flower. For the daisy, you can use any kind of wool or wool-blend roving. For the lily, select wool with a staple length of 3–4" (7.5–10 cm).

Shown here: Ashford Corriedale sliver in assorted colors.

Notions

38-gauge triangle-point felting needles; needle-felting surface; beads and buttons for centers (optional); yarn scraps for embellishment (optional).

Daisy

Prepare

Pull off a piece of roving at least 12" (30.5 cm) long and split it lengthwise into small sections. Begin rolling these sections together into a ball. Try to keep it flat and disk-shaped, rather than perfectly round. The ball you start with should be slightly bigger than the desired size of the finished flower.

Felt

Work evenly around the ball with the felting needle until it starts to firm up slightly. Be sure to tack down any loose ends or edges that stick out of the ball. Choose which "face" of the ball will be the front of your flower and begin to shape the center of the flower by punching the needle through that area repeatedly. This will form an indentation.

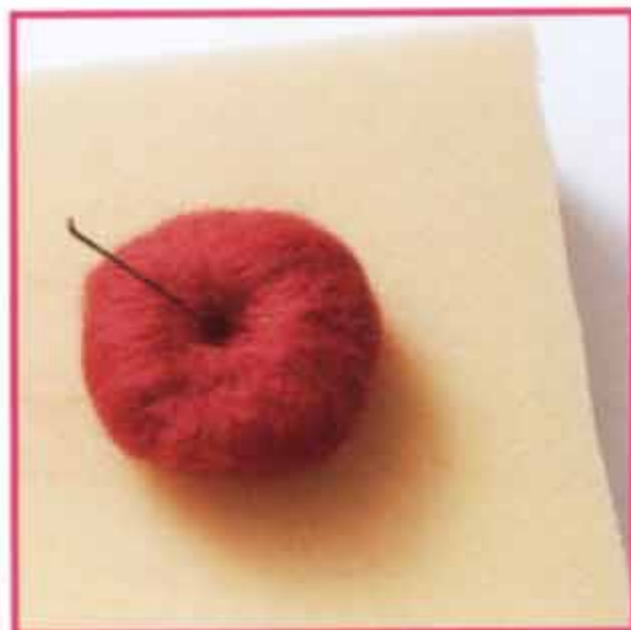
Begin shaping the first petal by needling in several points, forming a

straight line from the center to the edge of the ball. Trace over this line until it begins to form a crease. Repeat this to form a total of five petals.

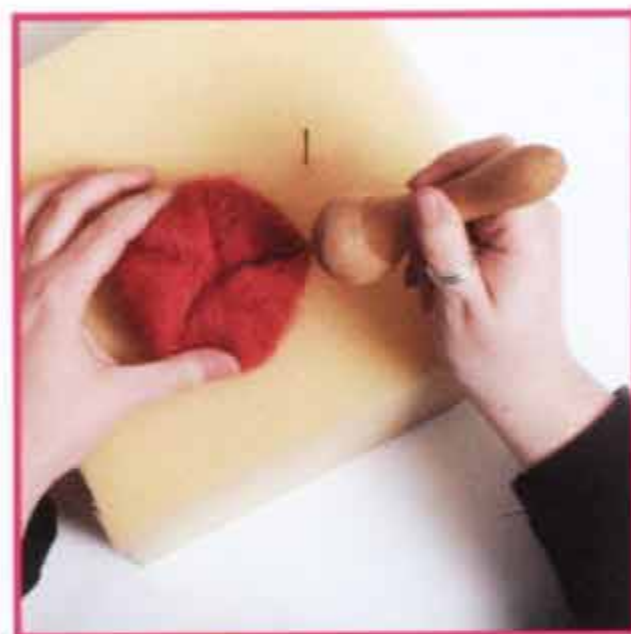
Define the petals further by continuing the lines over and around the edge of the flower. Continue working over the flower, concentrating on the center and the dividing lines, until you are pleased with the shape. Remember that wherever you insert the needle, it will create an indentation, and use this technique to shape any curves or details you would like to add to your flower. Work over the lines from different angles to gently round off the petals. This part takes a little practice but is not difficult.

Use a small piece of contrasting roving, or some little snips of yarn, to create a center for the flower and needle-felt it into place.

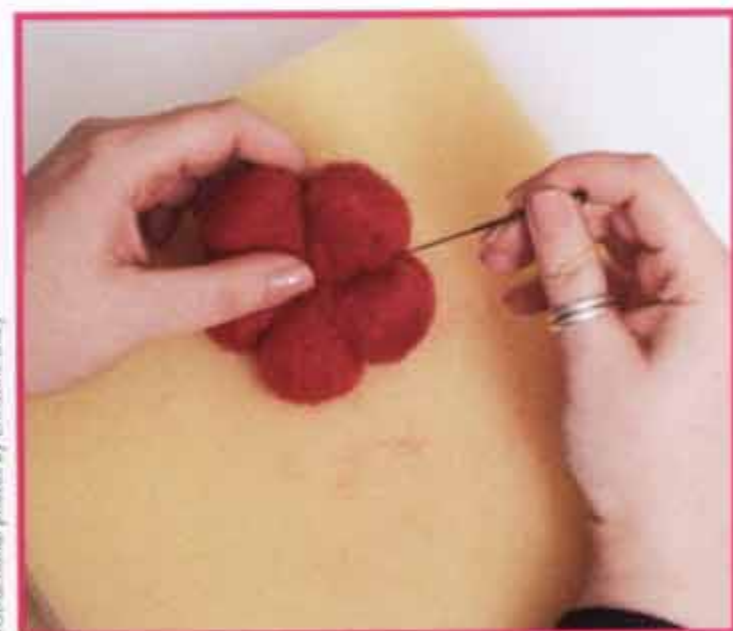
You could build on this basic flower shape by adding more petals, stacking multiple layers of petals together, using more than one color of wool, adding beaded details, or needle-felting leaves to go with the flower.



1. Shape center of flower



2. Create petals



3. Define petals



4. Add center



Lily

Prepare

Pinch some fiber from the end of the roving and pull out a small section roughly one staple length long. Do this 6 times. Arrange the 6 tufts of fiber on a foam pad into a semicircle, with the pinched corners on the outside.

Continue to pull off more sections of fiber and add them in layers until the shape is about $\frac{1}{4}$ " (6 mm) thick. (This will thin substantially as you felt it.) Twist the tips of each petal between your thumb and forefinger to make a sharp point.

Felt

Using a single needle or a needle punch, work over the entire surface of the shape until it starts to hold together. Peel the wool very gently off the foam. You will notice that some fibers have been punched down into the foam and are sticking out the back. Flip the piece over and continue to work over the entire shape from the other side. Continue working, flipping it over several times, until it is felted well enough to hold together through gentle tugging.

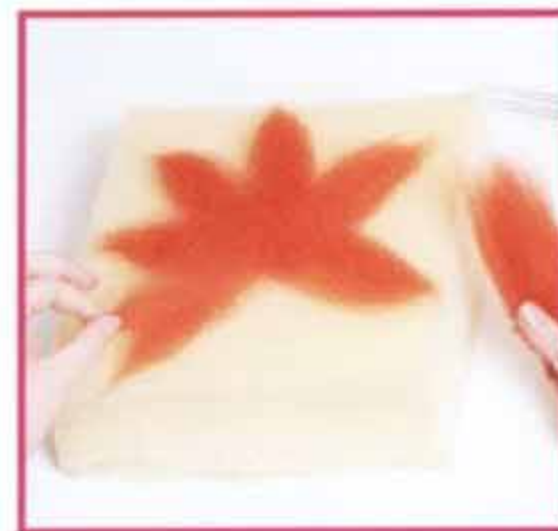
At this point, you could remove the flower from the foam block and use wet-felting techniques to strengthen it and smooth the surface. Give it a quick rub on a washboard or lay it between two layers of fabric, roll it up, and felt it with hot water and soap. (See page 63 for more information.) Let the flower dry completely before continuing with needle felting.

Work the center of the semicircle to make this area firmer and thinner than the rest of the flower. Draw veins up through the center of each petal with a single needle.

With the side you intend to be inside the flower facing down, roll the flower into a cone, and felt the edges of the semicircle together. Continue working around the cone, using a needle to felt a little fold at the join between each pair of petals.

Turn the flower right side out. Fold each petal lengthwise and felt a thin crease in the back of each petal, to emphasize the vein you drew down the center and shape the flower.

Cut stamens from short pieces of yellow or orange yarn, or a small piece of roving, and needle-felt one end of each piece to attach the yarn to the center of the flower.



1. Arrange fiber on pad



2. Layer wool and twist tips



3. Work center and define petals



4. Felt the join between petals





Flapper Hat

This is a time-consuming project—we won't lie. You start with 2 to 3 ounces (57 to 85 grams) of wool and make a hat using nothing but felting needles, elbow grease, and patience. It's extremely warm and soft and has sort of the same simple beauty as a fondant-covered cake. We used two colors of wool, one on the inside and another on the outside, which adds a little interest to the hat where the inner color barely shows through on the outside. Use contrasting colors to make this even more dramatic or only one color to make the hat plainer.

Finished size

Custom, to fit to your head or commercial hat form.

Materials

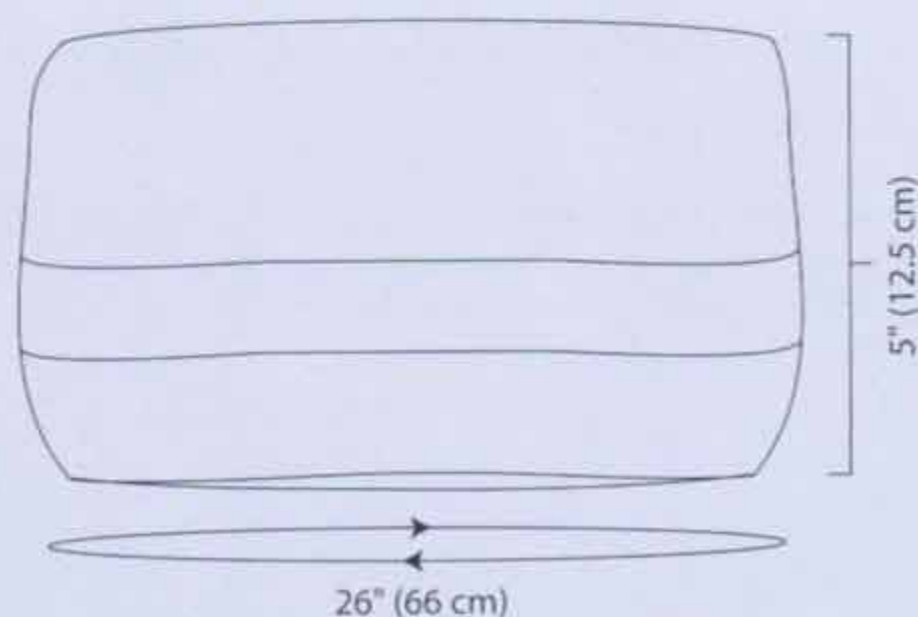
About 2 oz (57 g) wool fiber in main color (MC) and 1 oz (28 g) fiber in contrast color (CC). Optional: Assorted ribbons, buttons, beads, feathers, yarn, embroidery thread, and fiber for embellishment.

Shown here: Ashford Corriedale sliver, colors Beansprout (MC) and Lime (CC), embellished with tulle ribbon, hand-dyed mohair locks, Brown Sheep Lamb's Pride Bulky (85% wool, 15% mohair; 125 yd [114 m]/100 g): M78 Aztec Turquoise, about 1 yd (91.5 cm).

Notions

38-gauge felting needles; hat form; long sewing pins, sewing needle and thread (optional).

Note: You can buy a hat form from a needle-felting supply store or make your own out of thick upholstery foam (see page 94 for directions).





1. Layer the fiber over the hat form



2. Needle-felt until done

Hat form directions

Materials

4" (10 cm) upholstery foam; tape measure; electric knife or sharp serrated knife.

Note: We use green high-density foam. Cheaper white medium-density foam would also work, if you don't plan on reusing the block much.

Using a tape measure, measure around your head just above your eyebrows and record the measurement. This is C. Think back to geometry class and pull out your calculator—you need to determine the radius of a circle the same size as your head.

$2r = C/\pi$, so divide your head measurement by 3.14, and divide that number by two. Then use a compass (or devise one with some string and a push pin) to draw a circle of that radius on the top surface of your foam block.

Using an electric knife or a sharp serrated knife, cut straight down through the foam along the circle you drew. Trim the top edge off at an angle to make a rounded corner.

Prepare

Break the wool into 8–10" (20.5–25.5 cm) long pieces and spread them out so they are about 4" (10 cm) wide. You will wrap this wool around the hat form in at least four layers. Drape the first layer of CC on top of the form so it hangs over the sides, then wrap the second layer of CC horizontally around the sides. Wrap the third layer (the first layer of MC) around the sides again. This layer should be thicker than the previous two. Wrap the fourth layer, the second layer of MC, over the top and down the sides of the form again, but perpendicular to the second layer. The wool may be uneven along the bottom edge; you will neaten this later. Use any remaining MC to fill in thin spots.

Felt

Using a felting needle or needle punch, begin working over the entire hat form. First use the felting needle to tack down any loose edges or fiber clumps that are separating from the form. Once the felt starts to come together and no fiber appears to be falling off the form, work over the whole hat with whatever strategy you like—around in circles; targeting small areas at a time; or even totally at random. This is the time-consuming part of the project. It may take hours or even days before the hat is completely felted, depending on how much time and effort you devote to it, so this is a good project to work on in front of the TV or while reading.

Periodically peel the hat carefully away from the foam block to prevent it from sticking to the foam. Tidy up the edges by folding any overhanging fiber to the inside and continuing to felt the hat. Work around the bottom edge with the felting needle to

smooth out any bumps. When this project is done, you should be able to pinch some of the fibers on either the outside or the inside of the hat and tug them lightly without them pulling away from the fabric.

Finish

You may lightly iron or steam the hat from the inside to refine the shape.

Make it yours

Add a hatband and embellishments. We used some mohair locks that matched the color of the hat with a band made of tulle ribbon and matching yarn, all attached to the hat using nothing but a felting needle. You may use feathers, flowers, or an embroidered design on your hat. For some embellishments, like beads and feathers, use the sewing needle and thread to baste the design in place, then sew them down firmly. Just remember to plan your design carefully, pinning or basting elements into place to try them out first, because past a certain point needle felting is very difficult to detach without damaging the item.



3. Outside of the hat



4. Iron or steam the hat into shape



Maki Pincushion

By rolling up wool of many colors into a tube, you can make a simple millefiori effect, like the cane work traditionally done in colored glass or, more recently, polymer clay. We used this concept to make a simple sushi roll pincushion. Each project makes more than one cushion, so these are good quick gifts for knitters and sewers. Wool is perfect for pincushions because its natural oils coat pins and needles stored in it and protect them from rust and corrosion. If you store your felting needles in a needle-felted pincushion, it will firm up even more with use.



Finished size

4 pincushions, each about 1½" (3.8 cm) tall and 2" (5 cm) in diameter.

Materials

1–1½ oz (28–43 g) white wool; ½ oz (14 g) dark green wool; assorted fiber and yarn scraps in many colors.

Shown here: White Targhee roving; Ashford Corriedale sliver in color Green Tea; assorted wool and yarn scraps, including Ashford Corriedale and Brown Sheep Lamb's Pride.

Notions

38-gauge felting needles; needle-felting surface; sharp scissors or utility knife.



Lay fillings perpendicular to white roving

Prepare

Pull off about 8–10" (20.5–25.5 cm) of white wool roving and open it up so that it lies flat. Select roving or yarns in colors to represent sushi fillings (such as cucumber, carrot, radish, crab, avocado, tuna, or wasabi) and cut or break off pieces slightly longer than your white "rice" is wide. Fill the roll generously because everything will be shrunken and compacted during felting. Lay the filling pieces near one end of the white wool, so that the fibers are perpendicular to it, and roll it up.

Continue wrapping more white wool around the outside until you are pleased with the proportions and size of the roll. (Again, remember it will shrink during felting.)

Felt

Using a felting needle or a needle punch, work up and down the length of the roll, turning it as you go. Make sure the needles are penetrating all the way through to the center. When the roll is fairly cohesive, wrap a thin layer of dark green wool around the outside and use your needle(s) to felt that only to the surface of the roll; if you needle the dark green all the way through the roll, it will create dark streaks in your "rice."

Finish

Trim off the ragged ends of fibers and slice the roll into 1–2" (2.5–5 cm) pieces, using a utility knife or very sharp scissors. If you like salmon roe, finish by sewing or gluing on a few bright orange glass beads.



Wool Shoes

These needle-felted beauties were the first thing we thought of when we heard Converse was making a wool version of its classic shoe. The wool sides are backed with a striped liner fabric, and they can be needle-felted if you're careful and patient. It's more difficult to needle the surface of these shoes than to poke a piece of upholstery foam but well worth the effort. The same approach could be used on wool clogs or slippers. Because you're working in three dimensions instead of on a flat surface, you may need to make adjustments to your design techniques.

Finished size

Completely custom.

Materials

1 pair wool shoes or slippers; small amount of wool fiber and/or scrap yarn for appliqué.

Shown here: Gray low-top Converse All Stars (sku #7190819); red and green yarn remnants.

Notions

38-gauge felting needle; chalk or washable quilters' marking pencil; sewing needle and thread (optional).

Prepare

Decide on a pattern or design you'd like to needle-felt onto your shoes. Draw the design onto the shoes with chalk or marking pencil or use a needle and thread to baste the yarn or fiber into place with thread that you'll remove later. (The advantage of this second technique is twofold: You can lay out the whole design in advance and not have to guide the yarn with one hand while you needle with the other, and if you have a tough time getting your sewing needle through a part of the shoe, you can adjust your design accordingly to accommodate the felting needle.)

Felt

Carefully tack the yarn or fiber into place with the felting needle, positioning the yarn or fiber with one hand if necessary. Working slowly, go over the design with the needle until the design is firmly secured to the shoes. If you have trouble getting the needle through the fabric in a certain spot, don't force it, which may break the needle. Try approaching it from a different angle. You may need to alter your design slightly to accommodate the structure of the shoe.

Finish

When the design is completely felted onto the shoes, wipe off any chalk residue or clip the basting thread and remove it.



Felting for the allergic, vegans, and other nonwool people

We have friends who are so sensitive to wool that they can't bear to touch it and other friends who are vegan and don't use any animal products. Sometimes they jealously eye a favorite felted bag and ask, "How can I make one?" and usually the answer has been that they can't. But the theory of needle felting is that any fiber can be felted firmly and permanently with enough physical work. That sounded promising for our sheep-free friends, so we set out on a series of experiments.

FAQs

• Can you needle-felt a synthetic fiber onto fabric?

Absolutely! Go ahead and experiment with using felting needles to attach yarns made of manmade fibers to your shirts, jeans, tote bags—anything! You can also attach pieces of acrylic craft felt to other fabrics or to each other.

• Can you make needle-felted sculpture with nonwool roving?

We made this little flower out of 100% soy fiber, a fiber produced from the byproducts of tofu-making. It's not as easy to work with

as wool. The final object shrank a lot more than a wool flower would, and it's very hard and dense because the fiber doesn't have the kind of loft that wool does, but it absolutely worked. Follow the instructions as you would for the felted daisy, but start with a much bigger ball of fiber, and be careful and patient.



photo by Christine Olney

• Can you knit any of the projects in chapter one from an acrylic yarn and felt them with a needle punch?

We really hoped this would be as quick and obvious as it sounds, but it's not. It's certainly possible to mimic the look of felt, but no matter how long we pounded our acrylic swatches with the needle punch, they never quite came together into a solid fabric. That doesn't mean it could never happen—there may be a yarn we haven't tried that needle-felts perfectly, or maybe it just takes more patience than we have. If you're going to attempt this, make sure to size down the pattern, because needle-felted objects don't really shrink in length or width—just thickness. Plan to sew a fabric lining if you're making a bag so nothing slips out through the holes if the felt is not perfectly solid.



Shear brilliance

You can take advantage of craft felt as a decorative element to make needle-felt appliques, since needle-felting works with the synthetic fibers used in this material. Investigate various decorative scissor edges when working with felt. Pinking shears are only the beginning—you can also find scallops and other edges on scissors primarily designed for scrapbooking. The thin craft felt will show more detail in these elaborate edges than your thick handmade felt would.



Iron-on embroidery patterns

For unique effects, combine embroidery and needle-felting techniques to embellish any type of felted fabric—knitted, recycled, needle-felted, wet, or even delicate nuno felt. Don't want to draw your own designs for needle-felted appliques or yarn embroidery? There are plenty of hip iron-on patterns to choose from.

Our favorites are Jenny Hart's Sublime Stitching patterns and Katherine Shaughnessy's patterns at Wool and Hoop. Katherine's patterns were designed for crewel, a type of embroidery with very thin wool yarn on a linen backing—it didn't take much to translate the concept to felt! Jenny specializes in basic thread embroidery with attitude. Check out Katherine's and Jenny's patterns (in the resource guide) for additional techniques and inspiration, but here are the basics:

- Use yarn to create needle-felted outlines and loose fiber to fill in interior spaces.
- For fine detail (in needle felting or embroidery), you may want to split your yarn into its component plies.
- Experiment with including ribbons, trims, and cut felt.
- The iron-on patterns should be used with very little steam or none at all, and you shouldn't press down hard—you might inadvertently block the felt to the wrong shape.
- Don't use iron-on patterns with unfelted knits. Due to the height and width shrinkage differentials, that heart iron-on you choose might end up looking like a watermelon instead.
- If you can put the piece in an embroidery hoop, do; it'll make it easier to keep the surface flat while you work.



Iron-on pattern

photo by Christine Olney



Needle-felting shapes

Cookie cutters are a great way to shape fibers for needle felting. Unlike plastic stencils, they have a high wall that really holds the fiber in place and keeps your fingers out of the way of the felting needles. Place the cutter, fill it with fiber, and hold it in place while you punch the fibers into the fabric below. Be careful not to break a needle by stabbing too close to the cookie cutter, though.

This technique doesn't capture a lot of fine detail, so pick a big, open design. Pin out the fabric you're felting onto on a foam block so that the area is pulled tight. (We used a wool jacket to demonstrate.)



Needle-felting with a cookie cutter

photo by Christine Olney

Arrange your fiber into a thick layer within the stencil and start needle-felting. Unlike needle-felting into wool, the design won't really melt into the fabric. It is normal for the felt to stand out a little from the surface even when it is securely felted.

This technique also works with T-shirts, sweatshirts, and other fabrics! We recommend that you hand wash the finished items gently in cool water, unless you want to wet felt the applique, too.



photo by Christine Olney

Chapter Four



Recycled Felt



Environmentally responsible, cheap, fast, and fun—that's recycled felting! Recycled felt uses repurposed knits (such as old sweaters) that are felted, sewn, embroidered, knitted onto, or otherwise manipulated into new items. Check the back of your closet, the thrift store, and garage sales for old sweaters. Chances are you'll be able to find quite a lot of options for very little money. It doesn't matter if they have holes or other damage, you can work around that in most of the projects here, and felting will "seal" the edges anyway.

Old knits, reborn

To make recycled felt for all the projects in this chapter, just throw some old wool sweaters in a hot wash/cold rinse cycle until they're shrunken to the thickness you prefer for the project at hand. You'll learn with experience what to expect from particular fiber blends and even certain clothing brands. For example, one company's 100% lambswool sweaters shrink nicely but pill all over the surface when felted. To fix the pilling problem and make the surface more uniform, take an old hairbrush with plastic bristles and brush the felt surface vigorously in one direction. The pills will come off into the brush, and the felted surface will become smooth.

You can also trim away any snags or hairy bits with sharp scissors or a sweater shaver. We even know a couple of guys who repurposed a beard trimmer to add a polished look to the felted goods they sold. Tools to stay away from are rough "sweater stones" and the "d-fuzz-it" comb, which remove pills by pulling and tearing the fibers.

The patterns here range from dead simple (camera case and French press cozy) to challenging (patchwork felted jacket). But all you really need to approach any of them are basic handsewing skills and supplies to supplement the other knitting and felting tools you already have.

Thrift store sweater shopping guide

- ☛ If you like it, buy it now. It won't be there when you go back!
- ☛ Check for sales and coupons. (Mondays are half-price at one favorite store.)
- ☛ Accumulate lots of sweaters in the spring and summer when they're cheap.
- ☛ Mind the tags: is it 100% animal fiber or a blend?
- ☛ Basic colors like gray, black, and white (particularly cabled Arans) are always good to have.

The art of sweater dismemberment

Once you have a large collection of felted sweaters, you'll probably want to cut them apart into pieces for easier storage.

Here's how to take one apart for maximum useable fabric. A rotary

cutter and mat make it much easier. You can do this either before or after felting—sometimes we take the sleeves off to make wristlets or hats, then felt just the bodies. Or, if we go thrifting with friends and end up fighting over the best sweaters, one person can take home the sleeves while another keeps the body.

- ☛ Turn the sweater inside out and place it front side up.
- ☛ Chop off the sleeves, following the seam lines if there are any.
- ☛ Cut along one side seam and shoulder line.
- ☛ Open the other shoulder line, and trim off all excess seam bulk, whether knit or serged.

Voilà! Leave the sweater as is for now if you haven't decided what to make with it yet; you never know when a large, unbroken length of fabric will come in handy.



Embroidered Felted Needle Case

Items you use all the time should be beautiful as well as functional. A handmade needle case with personalized embroidery is the perfect combination of those qualities.

If you embroider with wool yarn before felting, it will shrink into the surface and become part of the fabric. Embroidering onto an already-felted piece requires a sharp darning or tapestry needle and more patience, but can be used to add texture as well as color to the piece. To take advantage of the different properties of each technique, try combining yarn embroidery prefelting with embroidery floss postfelting, for extra texture and shine.

Finished size

10½" (26.5 cm) tall and 17" (43 cm) wide, unfolded.

Materials

Large felted sweater and additional felted scraps as desired for trim; ½ yd (45.5 cm) fabric for lining.

Shown here: Light gray 100% wool from a felted sweater; extra felt scraps in shades of lavender and purple; lavender silk shantung lining.

Notions

Tapestry needle; straight pins; coordinating yarn oddments for embroidery; iron and ironing board; sewing needle and matching thread or sewing machine.



Prepare

Cut off the top of the prefelted sweater at armpit level, then cut up one of the side seams. Determine how big a case you need to hold your needles, then measure and cut a corresponding rectangle out of the felt. The case pictured folds in half and is 10½" (26.5 cm) tall and 17" (43 cm) wide when open. If you have a lot of needles to store, you may want to make a tri-fold case. If you have a lot of 14–15" (35.5–38 cm) straight needles, you will need to make your case taller. Cut the liner fabric as wide as the felted piece and 1½ times as tall. (In our example, this means 15¾" [40 cm] tall and 17" [43 cm] wide.) Fold the bottom third of the liner fabric up and press with an iron on the appropriate setting for your fabric to form the needle pockets. Fold the edges of the liner fabric under to create a ¼" (1.3 cm) hem on the three remaining edges and press.

Sew

Pin the liner centered on the felted piece and sew all the way around the four edges. Using your knitting needles as a guide, determine how many pockets you'll need and how wide each should be; 1" (2.5 cm) is wide enough to hold a pair of most knitting needle sizes or a few crochet hooks. Stitch up from the bottom of the liner to the top edge of the pocket, working your way across the piece.

Make it yours

Cut shapes from your trim fabric and sew these like appliques to the outside of your case; in the example pictured, we've created a gardenful of lilac flowers. Embroider with yarn scraps or add beads—now's your chance to make it truly one of a kind.



Stained Glass Sweater Pillow

There's nothing like curling up on a cold winter day on a sofa piled with cuddly wool pillows—just ask our pets—and no easier way to make them than with recycled sweaters. The easiest possible method is to felt a single sweater, cut off everything from the arms up, and sew the resulting rectangle into a pillow cover. If you have an Aran sweater that's been damaged or outgrown, you can needle-felt colored wool into the negative space in and around the cables to create an effect that looks like a stained glass window.

Finished size

Varies according to the size of the sweater and pillow form.

Materials

Aran or other cabled wool sweater to felt; small amounts of wool in multiple colors.

Shown here: Cream-colored Aran wool sweater; Ashford Corriedale sliver in colors Green Tea, Spearmint, and Plum Duff.

Notions

38-gauge felting needles; needlefelting surface; sewing needle and thread; polyester fiber fill or pillow form of desired size.

Create recycled felt

If you haven't already done so, cut the sleeves from the sweater body along the seams and set them aside for another project. Felt the body thoroughly by putting it through one or two hot wash/cold rinse cycles in the washing machine. You can tumble dry it on low to prevent it from shrinking too much more or let it dry flat. Once the sweater is dry, cut off the top of the sweater, straight across below the armholes. (Do this only after felting, to prevent the sweater from raveling.) Cut the remaining tube to the desired pillow dimensions, adding $\frac{1}{2}$ " (1.3 cm) seam allowance at each end of tube.

Needle-felt

Slide a foam needle-felting surface inside the sweater and position it so that a cable motif is on the center of the foam. Begin filling the space in and around the cable with colored fiber and use needles to felt the fiber in place. Arrange and stretch the wool as you work, filling the edges first and working toward the center. Add more wool as necessary. Repeat until you are pleased with the look.

Finish

After needle-felting, turn the pillow cover inside out and sew the top and bottom closed, leaving an opening wide enough to insert your pillow form or fiberfill. Turn the cover right side out again and insert fiberfill or pillow form, gently smoothing the cover in place. Sew it closed by hand and fluff up your new pillow.

Make it yours

Experiment with other techniques to create more wool pillows. Here are a few ideas to get you started:

- ✓ *Patchwork pillows: This is a great way to use up smaller scraps from other projects, particularly sweater sleeves. Piece the individual scraps together in square blocks with a pleasing design, then stitch two blocks together and stuff. You can add crazy-quilt-style yarn embroidery, cutout shapes, and many other embellishments.*
- ✓ *Reverse appliqué: Cut a shape out of the front piece of a sweater body pillow cover—a star, a series of squares, or any other simple geometric pattern. Sew a piece of felt or a knitted panel in a contrasting color over the cutout from the back, then finish and stuff the pillow as above. The cutout creates a window that shows the contrasting fabric you sewed on the inside.*



Fill the cables with colored fiber

photo by Christine Ovey



Camera Case

This camera case will keep your digital friend padded and safe when it's tucked in your bag or backpack. Electronics don't like to be cold any more than you do—it's bad for the battery life. This project is a great way to use up smaller pieces of felted fabric left over from other projects, such as the sleeve end seen here, or a beautiful piece of handmade wet-felted fabric. Of course, cameras vary in size and shape, so these instructions are guidelines only.

Finished size

Custom, to fit your camera.

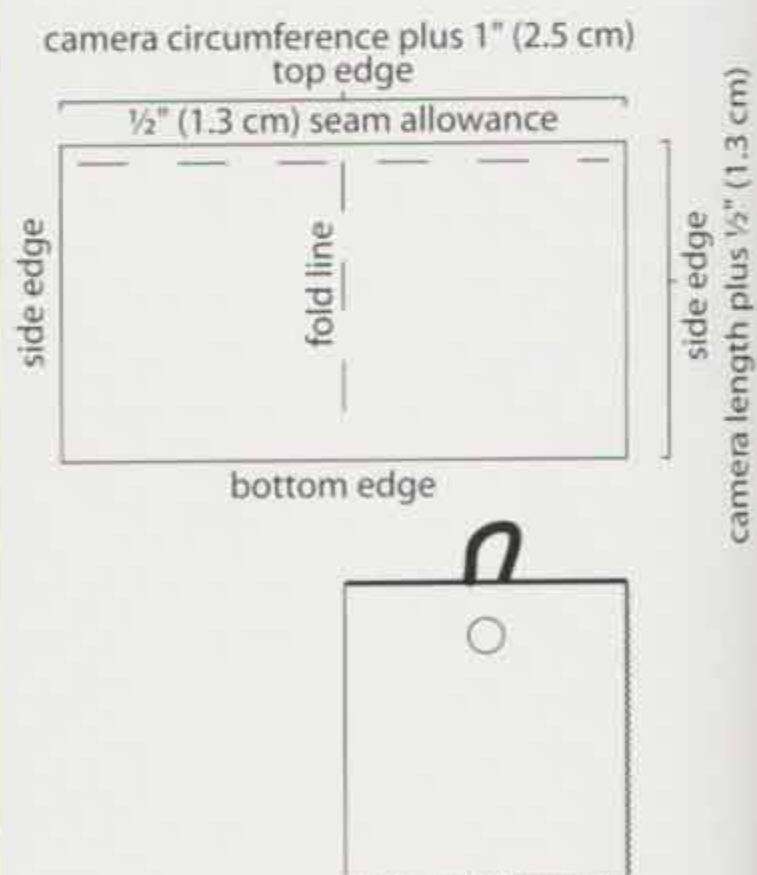
Materials

Enough felted fabric to wrap completely around your camera; craft paper or brown paper bags; about 10 yd (9 m) yarn oddment and button for braid closure; yarn for embroidery (optional); craft felt (optional).

Shown here: Felted wool sweater in an intarsia design, 6" (15 cm) long and 7" (18 cm) wide before folding and stitching; 6" (15 cm) square piece of red embossed craft felt; red yarn oddments for braid closure and embroidery.

Notions

Sewing needle and thread; tapestry needle; scissors; long sewing pins; pencil or pen.



Prepare

Measure the camera circumference (around the widest section) and length. With pencil or pen, trace a rectangle on the craft paper or brown paper bag as wide as the camera circumference plus 1" (2.5 cm) and as long as the camera plus 1/2" (1.3 cm); see schematic. Cut out the rectangle of craft paper and pin it in place on top of the felt, then cut felt to size. (You could also make a piece of felt in the right dimensions by laying out several smaller pieces of felt to cover the paper template, then sewing them together as patchwork.) If you would like to embroider, needle-felt, or sew any decoration on the case (see box at left for design ideas), add those embellishments now, as it will be more difficult after the case is assembled. For the case shown here, we stitched on a decorative piece of craft felt that reminded us of a dragon's tongue; the pattern prepressed into the fiber adds beautiful texture and dimension to the rest of the case.

Assemble

Top opening:

Fold 1/2" (1.3 cm) of felted fabric to wrong side across one long edge to serve as top opening and pin in place. Stitch the 1/2" (1.3 cm) hem by hand or sewing machine. Remove pins. Fold the felt in half so that both side edges meet; baste them together and slip the camera inside to make sure it slips in and out easily. Remove camera. If the case needs adjustment, remove basting thread and re-baste to achieve a better fit. Sew the side edges together and whipstitch the bottom edge closed (see Glossary, page 125). The whipstitch seams used on the project shown here were made on the RS of the work as a decorative element.

Braided closure:

Leaving 2" (5 cm) yarn tails, cut yarn evenly into 3 strands yarn and knot them together. Braid the yarn strands to make a braid about 5" (12.5 cm) in length. Cut yarns, leaving 2" (5 cm) tails, and make another knot to secure end of braid. Fold braid in half to form loop closure. With needle and thread (or yarn), whipstitch braid to center back about 1/2" (1.3 cm) from top edge, leaving yarn tails free to form a small decorative tassel. Pull braid over the top opening toward the center front and align button so loop will catch the button and anchor the top edges together. Stitch button in place with needle and thread. Weave loose thread ends through several sts on WS of work to secure.

Make it yours

This pattern, while quite simple, offers many possibilities for customization—anything from sewing on buttons or beads in a design to cutting decorative openings sealed with whipstitching for the lens and flash (good for outdoor wintertime photos—it keeps the snowflakes off!) or other appliques.





French Press Cozy

Tea cozies are practical and fanciful, but frankly they're the kind of project that noncrafters have been known to mock. Teach the doubters a lesson with this modern cozy that matches your highly caffeinated lifestyle. An old sweater with interesting edging is great for this project. Notice how much interest the deep ribbing and coordinating buttons add to the sample shown here. For a fancier cozy, embroider or needle-felt onto the finished piece. This technique works best on straight-sided French press coffeemakers, but with a little shaping, you can also make a cozy that will fit a rounded machine pot.

Finished size

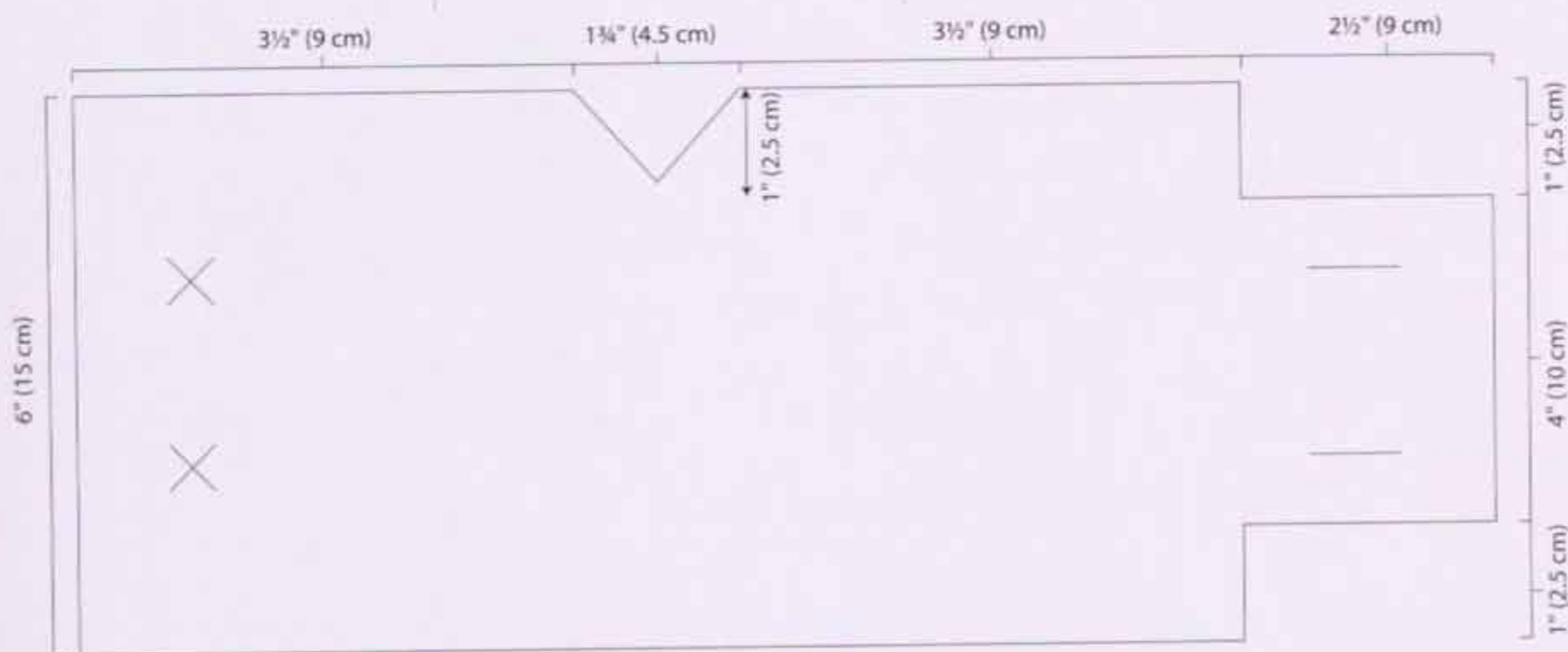
Custom, to fit your pot. Cozy shown measures about 6" (15 cm) wide × 11¼" (28.5 cm) long (measured flat).

Materials

Large wool sweater, felted (see directions on page 103).
Shown here: Turquoise Shetland sweater.

Notions

Brown paper grocery bag (or equivalent craft paper); two ¾" (2 cm) buttons, or other closures of your choice; darning or tapestry needle; sewing needle and thread to match sweater; scissors or rotary cutter; pins or washable fabric marker; ruler or yardstick; French press-style



Adjust measurements as necessary to fit French press



Paper template wrapped around the French press

Prepare

First, you will make a paper template to fit your own coffee pot. Measure the height and circumference of the pot. Cut a paper rectangle as tall as the pot and as wide as the circumference plus 3" (7.5 cm) extra. Tape the paper pattern to one side of the pot's handle and wrap it around to the other side of the handle. Fold the paper back where it hits the handle to mark the edge and use a pencil to make two marks on the fold where the inside edges of the handle are. This is how you will fit the cozy to the pot so that no glass is left exposed. Take the paper pattern off the pot and unfold. Use a pencil and straightedge to draw two lines from the handle marks to the edge of the paper. Cut along these lines and then along the fold from the sides to each mark. This should create a tab that fits snugly through the handle.

photo by Christine Olney

If your pot is a different shape than ours, you may need to modify the pattern. For example, if the handle of your pot doesn't extend for the full length of the pot, you may want to cut two or more tabs to fit around it on all sides. If your coffee pot is round or curvy, try cutting evenly spaced darts that you can sew closed to fit the felt cover to the pot.



Assemble

Lay out your pattern on the felted sweater and cut around it. (If your felted fabric is exceptionally thin, or if you like your coffee extra hot, you can double the fabric for extra thickness and stitch the layers together.)

Wrap the cozy around the pot and decide where to attach the buttons. Remember, the cozy should fit snugly. Working at the wide end of the cozy, mark the placement of the buttons using pins or a washable felt pen. Align the button marks with the overlap section, and mark the placement of the buttonholes with pins or washable felt pen. With sewing needle and thread, sew the buttons (or other closures) on the wide end of the felt piece in the position you marked. Wrap the cozy around the pot once more, and double-check the places you marked for the buttonholes (measure twice, cut once). When you're certain that the marked buttonholes align with the buttons, cut two slits of suitable size to close the cozy.



Paper template pinned to felted sweater



The finished cozy fits snugly, to keep the coffee steaming hot



Patchwork Felted Jacket

Like a quilt, there are a number of different ways to make a unique patchwork jacket or vest—with uniform square pieces, assembled crazy-quilt style, or following the construction of the original felted sweater. Use the smooth, plain parts of the sweater, or incorporate the edgings, seams, and other design elements into your jacket. Be inspired by quilts or Japanese *boro* textiles—heavily mended and patched indigo fabrics which are an excellent example of the depth of character you can create with random patchwork. You don't have to be an expert seamstress—we're certainly not! Just choose the construction method that best suits your sewing skills, time, and taste.

Finished size

Completely custom.

Materials

One or more wool sweaters, felted;
CYCA #4 (worsted-weight) yarn:
350–500 yd (320–457 m) (optional).
Shown here: Gray and purple vest:
Gray 50/50 blend felted sweater (for
body), several pieces of purple felted
sweater in 2 shades; Brown Sheep
Lamb's Pride Worsted (85% wool/15%
mohair; 190 yd [174 m]/100 g): color
M173 Wild Violet, 1 skein, and color
M182 Regal Purple, 1 skein (for collar
and I-cord trim).
Pink jacket: Red and pink felted
sweaters; Brown Sheep Lamb's Pride
Worsted (85% wool/15% mohair;
190 yd [174 m]/100 g): color M38
Lotus Pink, 1 skein.

Needles

U.S. size 11 (8.5 mm): circular (cir) and
set of 4 double-pointed (dpn).

Notions

Several paper grocery bags or brown
craft paper, or commercial vest or
jacket pattern; sewing needle and
thread; straight pins; waste yarn (for
provisional cast-on); scissors; 1 or
more buttons.
Optional: Embroidery thread; vintage
buttons, beads, decorative trim, rib-
bon, grommets, studs, etc.

Patchwork Felted Jacket and Vest Resources

If you opt to use a sewing pattern as the basis for your patchwork jacket, Vogue 7975 (available at <http://www.sewingpatterns.com> or at your local sewing/craft store) works well, or choose another pattern for a jacket with a plain front and set-in sleeves.

To custom-knit a set-in sleeve for your jacket, you may find it helpful to consult Jenna Wilson's excellent series of articles at <http://knitty.com>.



Prepare the jacket or vest body **Quick and easy method (shown here in gray and purple vest)**

With a rotary cutter or scissors, remove the sleeves from the sweater, cutting at the seams if possible. Carefully cut an opening down the front of the sweater, and also remove any neck treatments, such as ribbing or collars.

Commercial pattern method

Note: If you haven't made a vest or jacket using patchwork pieces or recycled knits before, this is probably the best method to use. Once you've obtained a little experience, it will be easier to use the custom pattern method mentioned later on. Lay out your

purchased sewing pattern on the felted fabric. Carefully cut out the body pieces with scissors or a rotary cutter and sew the body together. Mark any darts with sewing thread. (You may also use the custom pattern directions below to assemble the body from patchwork, using the commercial pattern as a guide.)

Custom pattern method (shown here in pink and red jacket)

Create pattern:

Lay 2–3 grocery bags (cut to lie flat and taped together) or a large sheet of craft paper on the ground. Lay your favorite oversized sweater on the paper. (Those with set-in sleeves work best.) Trace the basic outline of the body onto the paper and roughly sketch the curve where the sleeves meet the sweater.

Leaving a 1–2" (2.5–5 cm) seam allowance all the way around (wider for thicker fabric), particularly around the sleeve area, cut out the body piece. It's easy to trim away extra material around the armhole later, so err on the generous side for seam allowances. You will use this pattern to cut the front and back body pieces of the jacket.

Piece body:

Cut the sweaters into pieces and lay them out on the paper pattern you've just created to make the back. Overlap each piece on all sides, leaving at least $\frac{1}{2}$ " (1.3 cm) of fabric for a seam allowance. Pin the pieces together with straight pins (the more, the better) and trim off any excess that overhangs the pattern. Repeat for the front, which you will also stitch together as one piece, then cut open.

Fit:

You now have two pieces of the same size for the front and back. Pin the two pieces together across the shoulder line. Wearing a close-fitting T-shirt or tank, slip it over your head like a poncho. (If you're making this for someone else, try it on the recipient instead.) Pin the sides shut at the underarms, overlapping each piece evenly. You can adjust the side seams for a closer or boxier fit by how you pin the sides together. (This step will be much easier with a helper.)

Assemble front and back:

With your sewing machine or by hand, stitch the patchwork together with a $\frac{1}{2}$ " (2.5 cm) seam allowance. If you're sewing by hand, you can use sewing thread, embroidery thread, or even yarn threaded through a sharp tapestry needle. Do not sew side or shoulder seams yet. When you are satisfied with how the patchwork pieces are stitched together, run them through another hot/cold cycle in your washer to meld the patchwork into a cohesive piece and even out the fabric. This helps the jacket look more polished, and if you've used yarn to stitch the pieces together, it will felt into the body pieces. You can also block uncooperative pieces into shape. Don't put them in the dryer this time. Lay the pieces between two damp towels, so the wool doesn't scorch, and iron the seams flat.

Darts:

For a close-fitting woman's jacket, you may need to cut a bust dart on either side. This allows the jacket to nip in below the bust line for a more fitted waist. (If you were knitting this, short-rows or decreases would go here for shaping.)

**Baste pieces:**

Now you can baste the body pieces together, including any bust darts, but don't sew them permanently until you've fitted the sleeves (if you're planning a jacket). Cut open the front, creating left and right front panels.

Armhole (or armhole opening)

With a sharp pair of scissors, trim the arm opening. Remember, the armhole shape and size will depend upon whether you're making a sleeveless vest or a jacket with sleeves. In either case, it's a good idea to follow a commercial sewing pattern, an existing garment, or something that fits correctly.

Sleeves (optional)

Since the body of the jacket is completely custom, the following are provided as a guideline only. It may take some trial and error to knit sleeves to fit your needs. You can decide to forgo the sleeves and wear the piece as a warm vest, as we did in the gray and purple vest shown here; in that case, skip this section and sew the pieces together following the directions below.

Knit your sleeves in an appropriate color and stitch pattern—if you've made your body out of old cable knit pieces, knit cables into the sleeves! If your jacket is highly textured, use moss stitch or a slip-stitch pattern. Black-and-white bodies look ultra-mod 1960s Mondrian with solid primary-colored sleeves. (The pink sleeves shown here were worked in reverse stockinette stitch, purling every st on every rnd.)

The simplest method of knitting sleeves is the one shown here in the pink patchwork jacket: Measure around the entire armhole opening. With cir or dpn, loosely CO the number of sts necessary to equal 90% of the armhole measurement. Place marker (pm) and join for working in the rnd, being careful not to twist sts. Work in the st patt of your choice, and dec 1 st before and after m every 6 rnds (or as needed to taper sleeve). Work to desired length, then BO all sts.

For a more tailored sleeve, use your well-fitting sweater or commercial pattern as a guide and knit sleeves to the desired dimensions.

Sew pieces together

Ease the sleeves into the armholes, aligning the beg of the rnd with the underarm basting. Pin them into place.



Try on the jacket. Are you happy with the fit? Is something too loose or tight? Make adjustments if necessary. You may need to trim the armhole a bit to make it fit properly. (Again, a helper comes in handy at this stage, unless you're lucky enough to have a fitting mannequin.) When you're satisfied with the fit of the vest or jacket, use a sewing machine or needle and thread to sew the underarm seams permanently (if you've used the custom pattern), then sew in the sleeves, if any.

Finish and Embellish

Using yarn, extra felt fabric, or knitting, finish off the cut edges of the jacket or vest. (You

may want to trim the front into a V-neck or other front opening first.) For the gray and purple vest, we used the circular needle and yarn to pick up stitches around the neck opening and worked in ribbing for about 1¼" (4.5 cm) for a collar, then bound off all sts. With dpns and yarn, we knitted several yards of I-cord, then used a sewing needle and thread to trim around the armholes and along the front openings of the vest. For the pink jacket, we used yarn and a darning needle to whipstitch (see Glossary, page 125) around the neck opening.

Add the closure of your choice. For the gray and purple vest, we sewed a button onto one front panel just below the collar and sewed on a button loop of I-cord on the opposite panel. For the pink jacket, we sewed 5 buttons on each front panel, then with 2 yarn colors held together, crocheted 5 loops using crochet chain to wrap around each pair of buttons, making a simple frog closure. You might knit on buttonbands, attach purchased frog closures, tie the fronts closed with ribbon or I-cord, or choose the closure that suits your taste.

The options for embellishment are infinite. Use recycled felt or needle felting to attach a design to your vest—for the gray vest, we cut 9 strips of recycled felt in 2 shades of purple, each strip about 14" (35.5 cm) long by 1½" (4 cm) wide, then sewed them to the back of the vest in a staggered pattern, alternating the colors. Attach buttons, beads, ribbons, or other items—for the pink jacket, we sewed an assortment of vintage buttons on the front below the collar.



Shibori techniques

Shibori is a Japanese technique of textile dyeing. According to the World Shibori Network (shibori.org), the term doesn't have an exact English translation, but it is sometimes called "shaped-resist dyeing." The fabric is manipulated into patterns by folding and stitching before adding color—almost a cross between origami and tie-dye. Silkworkers also use shibori techniques to create elaborate permanent folds, puckers, and rippled textures in their fabric. In felting, you can use similar folding and wrapping techniques to create textures with visual and tactile appeal.

You can create shibori-style patterns by stitching or by tying small objects into the fabric. Smooth river rocks are used in some traditional shibori, but we strongly discourage putting those in the washing machine. Plastic bottle caps are ideal, as are small rubber balls—you want them to be able to go through the hot/cold wash cycle without falling apart or damaging your washer. For more complex shaping, you can even create small, hard fabric pillows stuffed with fiberfill or foam rubber!



If your item will be cut up or made into a different shape later, plan your felted shibori pattern layout accordingly. Place the shaper pieces on the back of the piece and cut some lengths of a nonfelting yarn (crochet cotton works well). Stretch the knitted fabric over the shaper and tie it off with the nonfelting yarn very tightly. Continue until you are out of shapers, patience, or room on the piece. Put the object through one or two hot/cold cycles in the washer, as you would for any other felt project. Carefully snip the ties off and remove the shapers. Voilà! You will find that finely knit sweaters, such as typical Shetland crewnecks, work best for this technique.

For the sample pictured here, we cut one sleeve from a fine-gauge wool sweater, then tied plastic bottle cap shapers in place. Before we put the pieces into the washer, we rolled up the ribbed cuffs very tightly and enclosed them in plastic sandwich bags, sealed with more crochet cotton. This kept the ribbing from felting in the washer and gave us a nice stretchy finished edge.

If you'd like to use these shibori techniques to both shape and dye your felt, refer to page 79 for more information on over dyeing felt.



Quilting felted fabrics

One of our favorite fiber artists, Denyse Schmidt, uses traditional construction techniques—much of the work for her ready-made quilts is done by groups of Amish women—to design contemporary quilts with modern colors and patterns. She's a perfect example of fiber art crossover, combining new and old techniques, and she gave us some suggestions.

Want to try quilting techniques on your felt? Here are a few tips:

- The thinner the felt, the easier it will be to hand-quilt.
- If you'd like to quilt a thicker piece, use a sewing machine. Be gentle and don't force it—some machines can handle quilting felt better than others.
- Don't bother with quilt batting if you're going to machine-sew thick felt, but it can give a nice dimension to thin felt. Line your piece with appropriate fabric if you use batting.
- Using a needle designed for tough fabrics like denim is best, with a strong poly/cotton blend thread.

If your machine has a "walking foot," an attachment that helps guide thick or multilayered fabrics under the needle, use it!

Abbreviations



beg	beginning; begin; begins	rep	repeat(s)
BO	bind off	rnd(s)	round(s)
CC	contrast color	RS	right side
cm	centimeter(s)	sl	slip
CO	cast on	sl st	slip stitch (slip 1 stitch pwise unless otherwise indicated)
cont	continue(s); continuing	ssk	slip 2 sts kwise, one at a time, from the left needle to right needle, insert left needle tip through both front loops and knit together from this position (1 st decrease)
dec(s)	decrease(s); decreasing	St st	stockinette stitch
foll	following; follows	st(s)	stitch(es)
g	gram(s)	tbl	through back loop
inc(s)	increase(s); increasing	tog	together
k	knit	WS	wrong side
k1f&b	knit into the front and back of same stitch	wyb	with yarn in back
k2tog	knit two stitches together	wyf	with yarn in front
kwise	knitwise, as if to knit	yd	yard(s)
lb	pound	yo	yarnover
m	marker(s)	*	repeat starting point
MC	main color	**	repeat all instructions between asterisks
mm	millimeter(s)	()	alternate measurements and/or instructions
M1	make one (increase)	[]	instructions are worked as a group a specified number of times
oz	ounce(s)		
p	purl		
p1f&b	purl into front and back of same stitch		
p2tog	purl two stitches together		
patt(s)	pattern(s)		
pssso	pass slipped stitch over		
pwise	purlwise, as if to purl		
rem	remain(s); remaining		

Glossary

Bind-Offs

Standard Bind-Off

Knit the first stitch, *knit the next stitch (2 stitches on right needle), insert left needle tip into first stitch on right needle (Figure 1) and lift this stitch up and over the second stitch (Figure 2) and off the needle (Figure 3). Repeat from * for the desired number of stitches. If you find that the bound-off edge is too tight, try binding off with a larger needle than the one with which the piece was knitted.

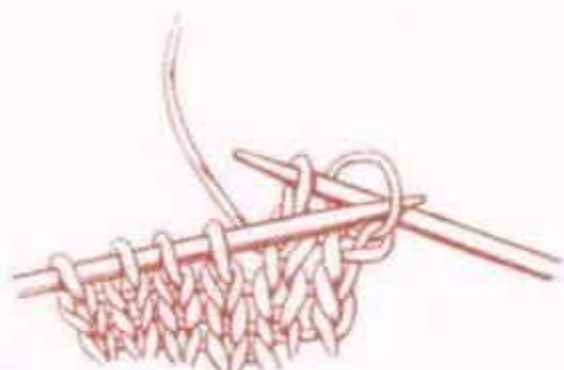


Figure 1

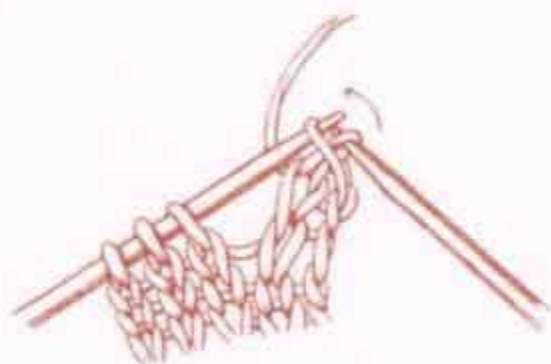


Figure 2



Figure 3

Cast-Ons

Backward-Loop Cast-On

*Loop working yarn and place it on needle backward so that it doesn't unwind. Repeat from *.



Cable Cast-On

Make a slipknot and place it on the left needle for the first stitch. Insert the right needle into the stitch and knit it, but don't drop the old stitch from the left needle. Place the new stitch on the left needle. *Insert right needle between the first two stitches on left needle (Figure 1), wrap yarn around needle as if to knit, draw yarn through (Figure 2), and place new loop on left needle (Figure 3) to form a new stitch. Repeat from * for the desired number of stitches, always working between the first two stitches on the left needle.



Figure 1



Figure 2



Figure 3

Long-Tail Cast-On

Leaving a long tail (about $\frac{1}{2}$ " [1.3 cm] for each stitch to be cast on), make a slipknot and place on right needle. Place thumb and index finger of your left hand between the yarn ends so that working yarn is around your index finger and tail end is around your thumb. Secure the yarn ends with your other fingers and hold your palm upwards, making a V of yarn (Figure 1). *Bring needle up through loop on thumb (Figure 2), catch first strand around index finger, and go back down through loop on thumb (Figure 3). Drop loop off thumb and, placing thumb back in V configuration, tighten resulting stitch on needle (Figure 4). Repeat from * for the desired number of stitches.



Figure 1



Figure 2

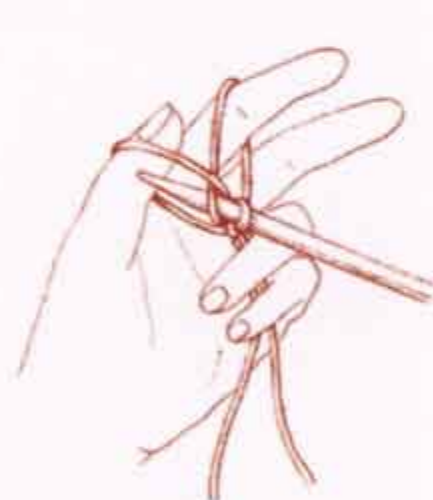


Figure 3

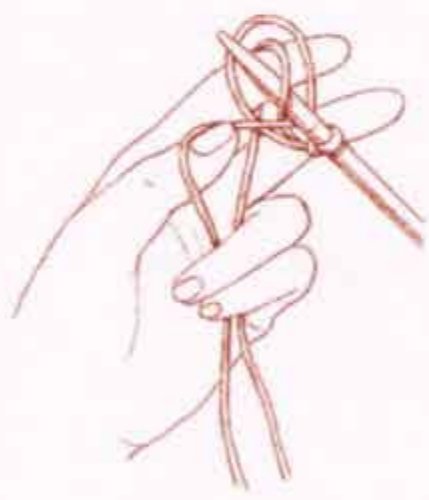


Figure 4

Provisional (Invisible) Cast-On

Make a loose slipknot of working yarn and place it on the right needle. Hold a length of waste yarn next to the slipknot and around your left thumb; hold working yarn over your left index finger. *Bring right needle forward under waste yarn, over working yarn, grab a loop of working yarn (Figure 1), then bring needle to the front over both yarns and grab a second loop (Figure 2). Repeat from * for the desired number of stitches. When you're ready to work in the opposite direction, place the exposed loops on a knitting needle as you pull out the waste yarn.



Figure 1



Figure 2

Crochet

Crochet Chain

Make a slipknot and place on crochet hook. *Yarn over hook and draw it through loop on hook. Repeat from * for desired length. To fasten off, cut yarn and draw tail through last loop formed.



Double Crochet (dc)

*Yarn over hook, insert hook into the fourth chain from hook, yarn over hook and draw through a loop (3 loops on hook), yarn over hook (Figure 1) and draw it through two loops, yarn over hook and draw it through remaining two loops (Figure 2). Repeat from * for the desired number of stitches. At the end of the row, chain 3 stitches and turn the work around. Begin the next row by inserting the hook into the second stitch from the hook.



Figure 1



Figure 2

Decreases

K2tog

Knit 2 stitches together as if they were a single stitch.



P2tog

Purl 2 stitches together as if they were a single stitch.



Ssk

Slip 2 stitches individually knitwise (Figure 1), insert left needle tip into the front of these 2 slipped stitches, and use the right needle to knit them together through their back loops (Figure 2).



Figure 1



Figure 2

Grafting

Kitchener Stitch

Arrange stitches on two needles so that there is the same number of stitches on each needle. Hold the needles parallel to each other with right sides of the knitting facing up. Allowing about $\frac{1}{8}$ " (1.3 cm) per stitch to be grafted, thread matching yarn on a tapestry needle. Work from right to left as follows:

Step 1. Bring tapestry needle through the first stitch on the front needle as if to purl and leave the stitch on the needle (Figure 1).

Step 2. Bring tapestry needle through the first stitch on the back needle as if to knit and leave that stitch on the needle (Figure 2).

Step 3. Bring tapestry needle through the first front stitch as if to knit and slip this stitch off the needle, then bring seaming needle through the next front stitch as if to purl and leave this stitch on the needle (Figure 3).

Step 4. Bring tapestry needle through the first back stitch as if to purl and slip this stitch off the needle, then bring tapestry needle through the next back stitch as if to knit and leave this stitch on the needle (Figure 4).

Repeat Steps 3 and 4 until no stitches remain on the needles, adjusting the tension to match the rest of the knitting as you go.

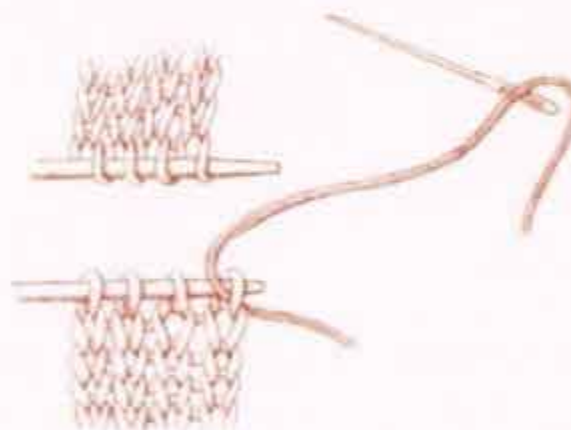


Figure 1

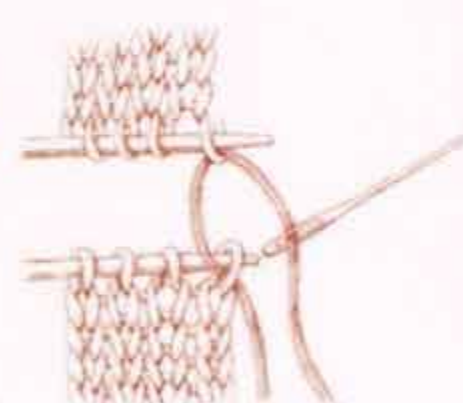


Figure 2

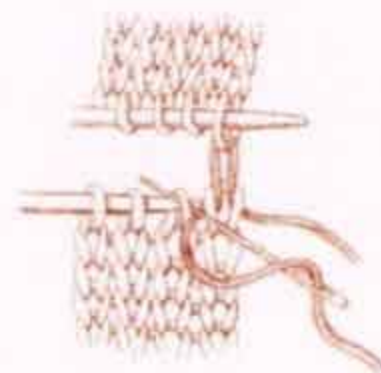


Figure 3

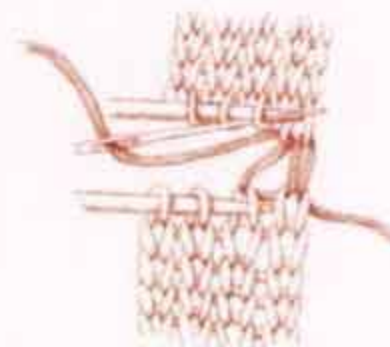


Figure 4

I-Cord

Using 2 double-pointed needles, cast on the desired number of stitches (usually 3 to 4). *Without turning the needle, slide stitches to other end of needle, pull the yarn around the back, and knit the stitches as usual. Repeat from * for desired length.



Increases

K1f&b

Knit into a stitch but leave it on the left needle (Figure 1), then knit through the back loop of the same stitch (Figure 2) and slip the original stitch off the needle.

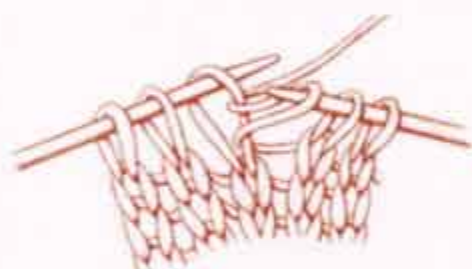


Figure 1



Figure 2

Make One (M1)

With left needle tip, lift the strand between last knitted stitch and first stitch on left needle from front to back (Figure 1), then knit the lifted strand through the back loop (Figure 2).



Figure 1



Figure 2

Pick Up and Knit

Work from right to left with right side facing. For horizontal (bind-off or cast-on) edges: Insert tip of needle into the center of the stitch below the bind-off or cast-on edge (Figure 1), wrap yarn around needle, and pull it through to make a stitch on the needle (Figure 2). Pick up one stitch for every stitch along the horizontal edge. For vertical edges or selvages, insert needle between last and second-to-last stitches, wrap yarn around needle, and pull it through to make a stitch on the needle (Figure 3). Pick up about three stitches for every four rows along the selvedge.



Figure 1

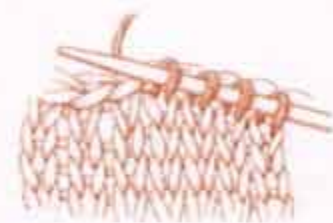


Figure 2



Figure 3

Seams

Backstitch Seam

With right sides together, pin the pieces to be joined together so that their edges are even. Insert the threaded needle from back to front through both pieces at the right-hand edge, take the yarn around the edges and reinsert the yarn through the same stitch, pulling tight to secure. *Insert the needle from back to front two stitches to the left (Figure 1), then from front to back one stitch to the right (Figure 2). Repeat from * to the end, pull the yarn firmly, and fasten off on the wrong side.

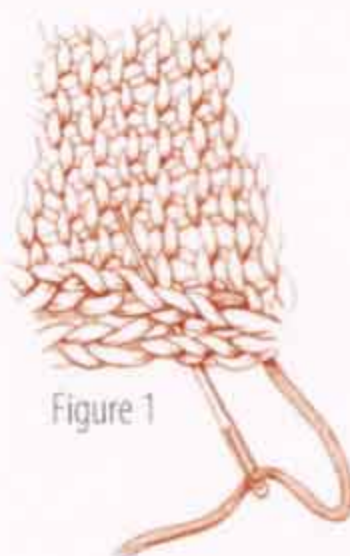


Figure 1

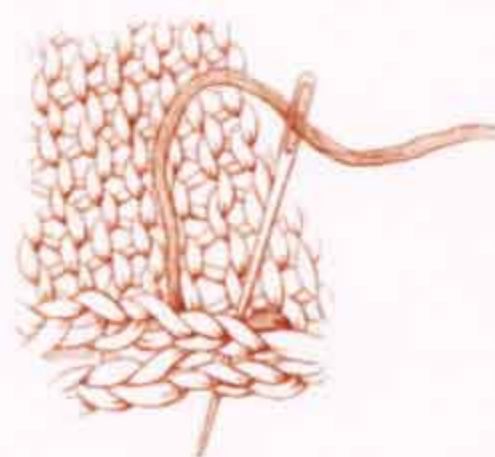


Figure 2

Mattress Stitch (invisible seam for stockinette stitch)

Hold pieces to be seamed side by side, with their right sides facing upward. Thread seaming yarn on a tapestry needle and join the pieces as follows: *Insert threaded needle under two horizontal bars between the two edge stitches on one piece (Figure 1), then under two bars between the corresponding stitches on the other piece (Figure 2), pulling the seaming yarn firmly to bring the pieces together. Repeat from *, alternating a stitch from one piece and a stitch from the other piece.



Figure 1

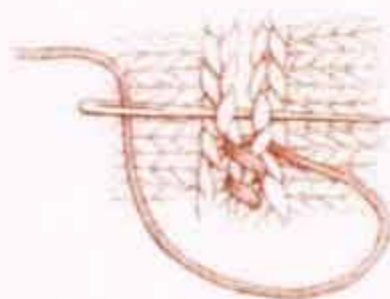
Figure 2



Figure 3

Whipstitch

With right sides facing up and the two pieces to be joined lying edge to edge, insert a threaded tapestry needle from front to back through one stitch at the edge of one piece, then bring the needle back up through the corresponding stitch on the other piece. *Insert the needle from front to back in the next stitch on the first piece and bring the needle from back to front in the corresponding stitch on the second piece. Working in a circular motion, repeat from * to the end, pulling the yarn in the direction of the seam. Pull the yarn firmly and fasten off inside.



Short-Rows

To make a short-row wrap on knit rows:

Work to turning point, slip next stitch purlwise to right needle, then bring the yarn to the front between the needles (Figure 1). Slip the same stitch back to the left needle (Figure 2), turn the work around, and bring the yarn in position for the next stitch, wrapping the slipped stitch with working yarn as you do so.



Figure 1



Figure 2

To make a short-row wrap on purl rows:

Work to turning point, slip next stitch purlwise to right needle, then bring the yarn to the back between the needles. Slip the same stitch back to the left needle and bring yarn to front of work between the needles. Turn work and bring yarn in position for next stitch.

When you come to a wrapped stitch on a subsequent row, hide the wrap by working it together with the wrapped stitch as follows: Insert right needle tip under the wrap (from the front if wrapped stitch is a knit stitch; from the back if wrapped stitch is a purl stitch), then into the stitch on the needle, and work the stitch and its wrap together as a single stitch.

Materials

Fiber suppliers

Ashford Fibers

Distributed in the United States by Foxglove
Fiberarts Supply
8040 NE Day Rd. West, Ste. 4F
Bainbridge Island, WA 98110
<http://www.ashford.co.nz>
<http://www.foxglovefiber.com>
New Zealand wool roving, sliver

Birds of a Feather

36840 Detroit Rd.
Avon, OH 44011
<http://www.ebirdsofafeather.com>

Ellen's 1/2 Pint Farm

85 Tucker Hill Rd.
Norwich, VT 05055
<http://www.ellenshalfpintfarm.com>

Grafton Fibers

60 Gib Lockerby Rd.
Grafton, VT 05146
<http://www.graftonfibers.com>
Handpainted fiber and batts

LuxeFibre

426 Oakland Ave.
Greensburg, PA 15601
<http://www.luxefibre.com/>
Handdyed and handspun fibers

ThreadBear Fiber Arts Studio

319 S Waverly Rd.
Lansing, MI 48917
<http://www.threadbearfiberarts.com>

Embroidery Patterns

Sublime Stitching (Jenny Hart)

PO Box 15130
Austin, TX 78761
<http://www.sublimestitching.com>
Iron-on designs, perfect for use on fabrics of all kinds

Wool and Hoop Ltd. Co.

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Yarns

Brown Sheep Company Inc.

100662 Cty. Rd. 16
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<http://www.brownsheep.com>
Lamb's Pride Worsted, Lamb's Pride Bulky, Nature Spun

Cascade Yarns

PO Box 58168
Tukwila, WA 98138
<http://www.cascadeyarns.com>
Cascade 220, Eco Wool, Pima Tencel, Bobble, Lapin, Pearls, Jazz, Dolly

Crystal Palace Yarns

160 23rd St.
Richmond, CA 94804
<http://straw.com/cpy/index.html>
Kiddo, Fling, Little Flowers, Fizz, Fizz Stardust, Dragon Fly, Laborador, Choo-Choo, Shag, Party, Poof, Iceland, Nubbles, Tingle, Splash, Musique

Dale of Norway Inc.

4750 Shelbourne Rd., Ste. 2
Shelburne, VT 05482
<http://daleofnorway.com>
Pelican

Knit Picks

13118 N.E. 4th St.
Vancouver, WA 98684
<http://www.knithicks.com>
Vacation, Sparkles, Get Away

Lana Gatto

Distributed by Needful Yarns
60 Industrial Pkwy. PMB #233
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<http://www.needfulyarnsinc.com>
Crystal

Lion Brand Yarn

135 Kero Rd.
Carlstadt, NJ 07072
<http://www.lionbrand.com>
Suede, Glitterspun, Moonlight Mohair, Incredible

Lorna's Laces

4229 North Honore St.
Chicago, IL 60613
<http://www.lornaslaces.net>
Bullfrogs and Butterflies

Mango Moon Yarns

412 N. Coast Hwy. #114
Laguna Beach, CA 92651
<http://www.mangomoonyarns.com>
Recycled Silk

South West Trading Company

1920 E. 3rd St.
Tempe, AZ 85281
<http://soysilk.com/>
Karaoke

Tahki • Stacy Charles Inc.

70-30 80th St. Building 36
Ridgewood, NY 11385
<http://www.tahkistacycharles.com>
Pop

Tools and Notions

Ashford Fibers

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8040 NE Day Rd. West, Ste. 4F
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<http://www.ashford.co.nz>
<http://www.foxglovefiber.com>
Needle-felting tools

FeltCrafts

492 South Main St.
Geneva, NY 14456
<http://feltcrafts.com/>
*Tools and kits for needle felting and
wet felting*

Lehman's

289 Kurzen Rd. North
Dalton, OH 44618
<http://www.lehmans.com>
Washboards
(Lehman's is a treasure trove for the nonelectric household. Most of their business comes from the Amish and Mennonite communities that surround the small Ohio town where they are based, but you can order from their website.)

Further Reading

Books

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Magazines

Spin-Off

Interweave Knits

PieceWork

Websites

Anne Kyyro Quinn

<http://www.annekyyroquinn.com>
This London-based Finnish designer shapes felt into complex, yet easy to complete geometric patterns for interior design. Her pillows alone will give you dozens of ideas to apply to not only felty home decor, but also garments and accessories.

Wild Turkey Felt Makers, Polly Stirling

[http://www.wildturkeyfeltmakers.com/
PollyStirling.html](http://www.wildturkeyfeltmakers.com/PollyStirling.html)
Polly Stirling invented the process for making lightweight nuno felt. The website includes items for sale as well as workshop schedules and other felting information.

Atelier Zia/Zia Gipson

<http://www.atelierzia.com>
This site features a great photo tutorial on nuno felting and lots of inspirational photos.



Index

- abbreviations 120
- allergies, wool 100
- basics**, felting 8
 - batt 12
 - batts, creating 13
 - beads in felt 61
 - bibliography 127
 - bind-offs 121
 - block, foam 11
 - blocking 22, 27
- cast-ons** 121–122
 - crimp, wool 8, 11
 - crochet stitches 122–123
 - crochet felting 21–22
 - cuticle, wool 8, 9
 - cutting tools 9
- decreases** 123
- embellishments** 61, 74, 95, 101
- fiber blanket** 12
- fiber preparation** 12
- fibers** 8, 11, 13, 100
- finishing** 22
- fleece** 12
- fulling** 23
- gauge** 20–21
- glossary** 121–125
 - grafting 123
 - grommets 61
 - grooming felt 23
- hat form**, making 94
- I-cord** 124
- increases** 124
- Kitchener stitch** 123
- knit-and-shrink felting** 16, 18–23
- knits**, cutting apart 103
- knits**, recycled 102–108
- lanolin** 8
- layering** 76
- needle felting** 16, 17, 78–101
- needles** 9, 10, 79
- nonwool felting** 100
- Nuno felt** 73–74
- overdyeing felt** 77
- patterns**, iron-on 101
- pick up and knit** 124
- quilting felt** 119
- recycled felting** 17, 102–118
- resources** 126–127
- rolags** 13
- roving** 12
- seams** 124–125
- shapes**, needle-felting 101
- shibori** 119
- shocking cuticle** 9
- short-rows** 47, 125
- sliver** 12
- Spin to Knit* 12
- staple length** 11
- stitches**, crochet 122–123; knit 123–125
- superwash wool** 61
- surfaces**, felting 10, 11
- surrounding with felt** 77
- swatchbars** 13–15
- thread** 10
- tools** 9, 63
- top** 12
- washing fleece** 12
- washing machine** 10; felting 19–20, 22
- wet felting** 16, 62–77
- wool**, superwash 61
- World Shibori Network** 119
- yarn** 12, 13

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