

# Fabric Facts

What you need to know about the material world

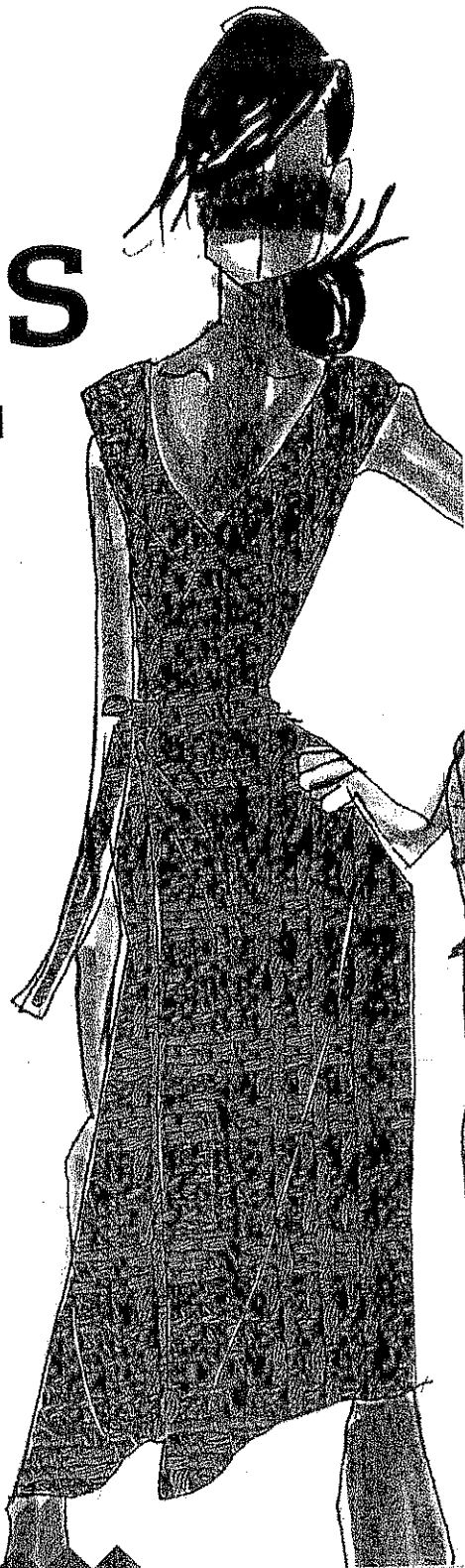
**C**risp, dry linen. Rich, buttery four-ply silk. Toothy, complex wool tweed. The fresh bouquet of a floral-print cotton lawn. What do they have in common? Not a lot—except each one is delicious, and fabric connoisseurs love them all. So, how do sewers choose the right fabrics for particular projects? In part, by using a fabric's makeup as a guide.

One way that you can best match a fabric to a project is by assessing its qualities. Luckily, the analysis of textiles doesn't have to be altogether technical. Handle the fabric, compare it to others you like or dislike, and consider its color, texture, and weight. Find

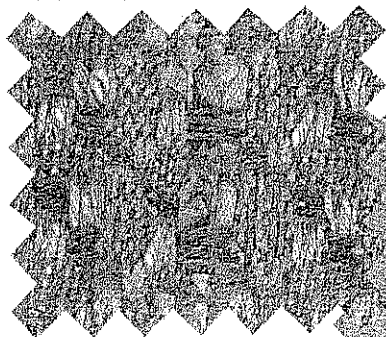
out what it's made of, and how it's made. And remember that no matter how much you love a certain fabric, it's important to be realistic about whether it's appropriate for the garment you plan to make.

However, if you encounter a truly irresistible fabric that doesn't fit your immediate needs, buy a little anyway. Let it age a while as you challenge yourself to come up with the perfect design for your precious find. There's room for all sorts of fabrics in every wardrobe—if you know how to use them.

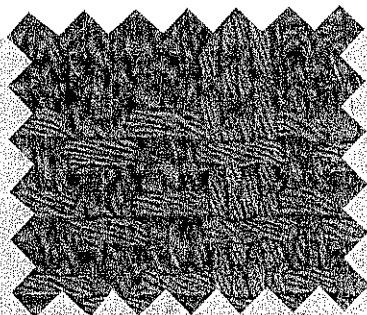
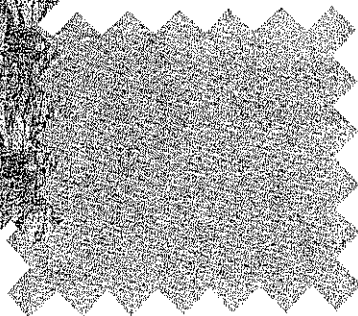
*Adapted from* Threads article "What Makes a Fabric" by Carol Fresia (no. 138).



Tweed with metallic thread

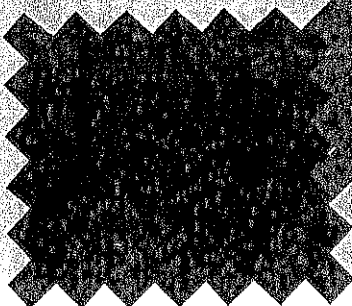


Cotton sateen

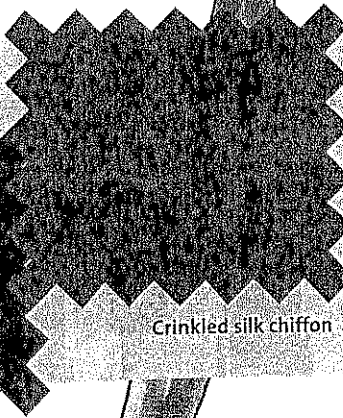


Textured cotton

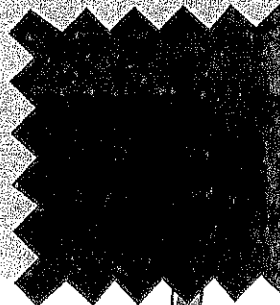
Polyester satin



Crinkled silk chiffon



Cotton twill



# The Truth About Textiles

You may be unwaveringly loyal to natural-fiber fabrics—and with good reason. They're comfortable, easy to sew, and produce reliably attractive garments. Although these fabrics have been around for millennia, they always have an of-the-moment look.

## Plant-Based Fibers

These include cotton, linen, hemp, and ramie. They are strong, whether wet or dry, take dye well, and press nicely; however, they also soil and wrinkle easily. Insects won't gnaw at them, but they are susceptible to mildew. They're dense fibers (try lifting a bin of quilting cotton), and while they're absorbent, they don't wick moisture or dry all that quickly—which is why cotton feels damp when you engage in strenuous activity.

## Animal-Based Fibers

These include silk, wool, and hair fibers such as angora, mohair, rabbit hair, cashmere, and alpaca. They tend to be light in weight, insulating, and able to absorb moisture without feeling soggy. They are elastic, resist wrinkling, and take dye well; however, certain insects love them. Chlorine bleach, strong detergents, hot water, and agitation can damage these fibers; dry-cleaning is often recommended, but sometimes hand washing is better.

## The Skinny on Synthetics

Synthetic fabrics have come a long way over the years. Thanks to new fiber structures, fabric coatings, and more, man-made textiles are easy to care for and comfortable to wear. Their benefits include extreme elasticity and recovery, soil and water resistance, moisture wicking, durability, colorfastness, and excellent insulating properties.

## Take It or Weave It

Different weaves behave differently. When choosing a weave to sew with, note that plain, twill, and satin weaves all have pros and cons. Plain weaves in which the lengthwise and crosswise threads are woven in a simple over-under pattern (muslin is a good example) are

smooth and often finely woven, but they tear easily along the grain, and are prone to wrinkling. Twill weaves, such as denim, gabardine, and some tweeds, have a diagonal rib on the surface. They're strong, but they fray badly and can be bulky at intersecting seams.

Satin weaves (which can be made of fibers other than silk, including cotton, wool, and synthetics) look glossy and smooth, but the long surface threads are susceptible to snags. Pay attention to the weave of a fabric so your garments wear long and well.

*Wool is wonderful! It's relatively light, insulates well, sheds wrinkles, and can be woven or knitted into myriad fabrics.*

Crepe

Double knit

Plain weave

# Weaves and Knits Unraveled

While the fiber content of a fabric determines its overall feel, its weave structure contributes to its hand, drape, and stretch.

## Wovens

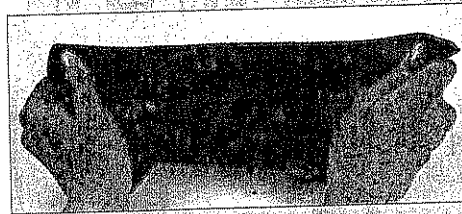
Woven fabrics are stable with some give on the bias. Generally, they press and take creases cleanly. Because they don't offer much mechanical ease (stretch that's built into the weave itself), woven garments offer support, and when properly fitted, conceal bulges. If you treat a woven garment well, you can count on it to hold its shape over time and many wearings.

## Knits

Because they're made of interlocking loops of yarn, knits stretch and drape better than wovens, and mold closely to the body—thus they're forgiving of a less-than-perfect fit. They may not wrinkle badly (compared to wovens with a similar fiber content) but are difficult to shape into crisp lines. Especially when fabricated from natural fibers, these fabrics can sag and bag and never quite recover their original size and shape. They also shrink more than wovens. Today's knits frequently include at least a small percentage of spandex fiber, which vastly improves their strength, stretch, and recovery.

## Nonwovens

These include leather, suede, fur, some synthetic suedes, felt, nonwoven interfacing, and paperlike specialty fabrics such as Tyvek. Each has its own characteristics and sewing requirements, so plan on experimenting if you use these. Lace, crochet, macramé, and novelty fabrics similarly call for special handling.



*For ease and give, nothing beats a knit. Add a touch of Lycra, and you'll get super recovery and lots of support. This type of power knit, shown at left, is characterized by the way it springs back into shape after stretching, making it ideal for activewear.*

Mesh knit

Sweater knit

Slinky knit

Textured knit

Power kn

# Mindful Fabric Selection

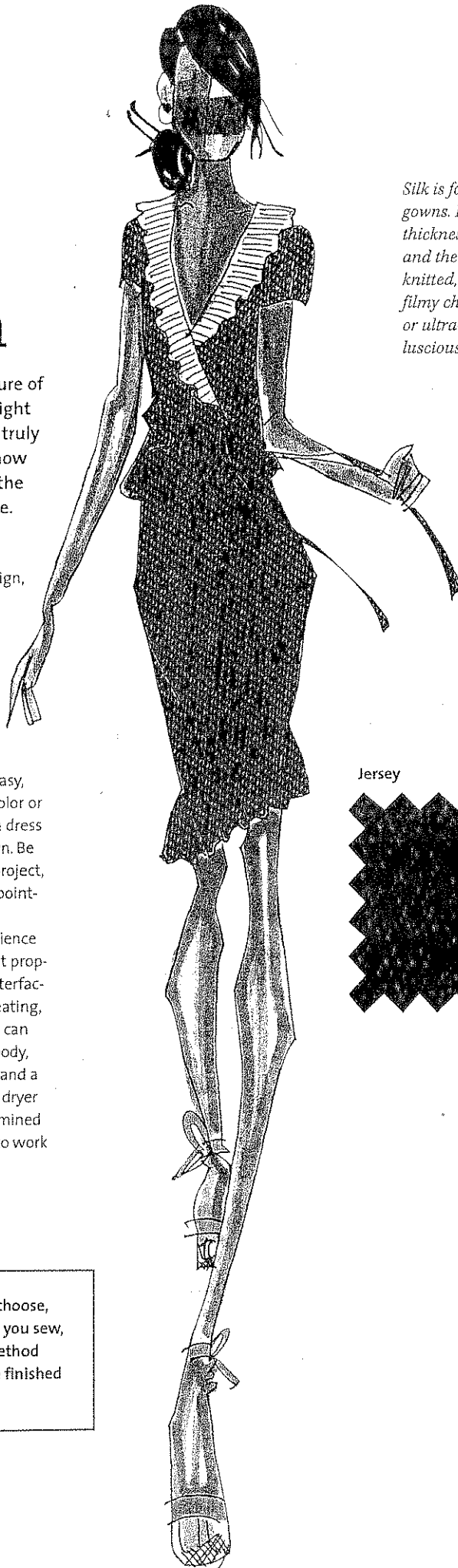
You can study the fiber and structure of fabric to get an idea of how it might behave now and over time, but to truly understand it, you need to know how these elements interact to create the particular qualities of your yardage.

For a successful pairing of fabric to design, consider characteristics such as stability versus stretch; weight and density; absorbency; opacity versus sheerness; drape; hand; surface texture; and color, pattern, or print.

Even the rankiest amateur knows that denim doesn't make a good shirt and that cotton jersey won't perform well as a pair of trousers. It's easy, though, to be seduced by a gorgeous color or pattern and end up with a see-through dress or a blouse that can stand up on its own. Be realistic when you choose fabric for a project, and you're much less likely to be disappointed by the resulting garment.

A resourceful sewer with some experience under her belt realizes that the inherent properties of some fabrics can be altered: Interfacing, lining and underlining, quilting, pleating, and even more complex manipulations can transform a fabric. It's possible to add body, weight, and stability to flimsy yardage, and a run through the washing machine and dryer can soften stiff material. If you're determined and creative, you can persuade fabrics to work in unexpected and wonderful ways.

**hot tip** Whatever fabric you choose, always treat it before you sew, using the cleaning method that you'll use for the finished garment.

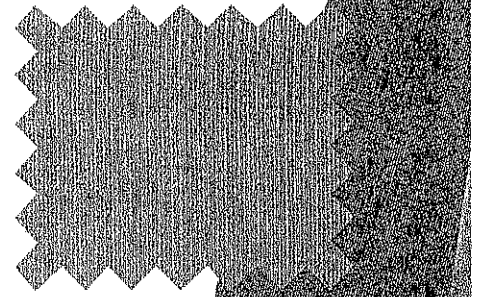


*Silk is for more than just fancy gowns. Depending on the thickness of the yarns used and the way they're woven or knitted, you'll get shantung, filmy chiffon, raw silk, crisp or ultra-drapey silk jersey, or luscious four-ply crepe.*

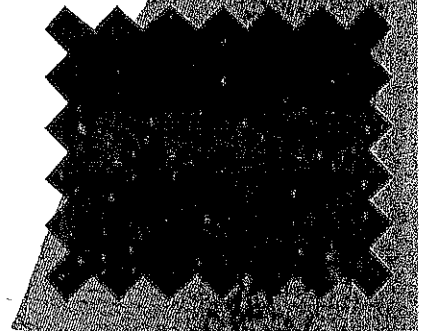
Shantung



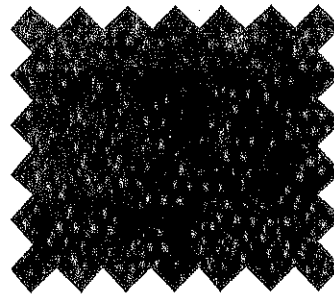
Chiffon



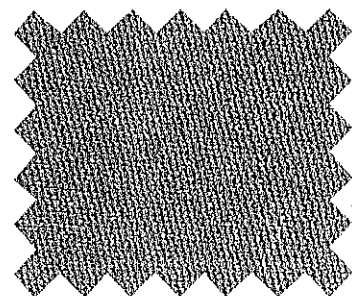
Raw silk



Jersey



Four-ply crepe



Name: \_\_\_\_\_

Fashion

Answer the following questions based on the *Fabric Facts* article.

1. Why is it important to pick the right fabric for particular sewing projects?
2. How do you know if the fabric is appropriate for the garment you wish to make?
3. What are the benefits to natural fabrics? List three examples of a plant based fiber.
4. What is an animal based fabric? List three examples.
5. What are synthetic fabrics? List three examples.
6. What is the difference between the fiber content of a fabric and the fabrics weave and structure? Why is this important?
7. Compare and contrast wovens, knits, and nonwoven fabrics?
8. Whatever fabric you choose you must always \_\_\_\_\_ before you sew. Use the same cleaning method that you will use for the garment after it is completed.