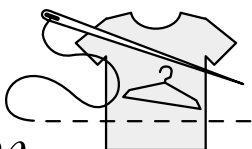


BASIC

Apparel Management





Wardrobe Action Plan

How Much is Enough? – A Guide for Planning Apparel Needs For the Family.

- Having a plan helps families spend time and monetary resources wisely. The step-by-step worksheet simplifies the process.

Objectives:

- How an evaluation of their current wardrobe will guide the wardrobe plan.
- How to make a wardrobe plan for each member of the family.
- Decide which items are needed by family members for coming seasons or activities.
- How planned purchases can fit within the family budget when time and money are scarce.
- Learn about the differences between needs and wants in planning expenditures.
- How to set goals and reach them.

Make copies of the following handouts and activity sheets for participants.

1. Wardrobe Planning
2. What Worked – What Didn't?
3. Quality Details in Apparel
4. What Do Those Foldlines Mean? Tips For Fitting.
5. Creating a Seasonless Wardrobe
6. Wardrobe Inventory Guide
7. Basic Styles For Everyone
8. Measuring the Body
9. Growing Kids – What Are the Options?

Process for wardrobe planning: Doing an inventory will help participants understand their current needs and maximize their budget by making sound purchase decisions. Remind them that planned purchases can be spread out over a long period of time to better fit their budget. The following information refers to the *Wardrobe Planning* handout.

Teaching Tips

1. Evaluate your present wardrobe.

Explain how to go through a family's wardrobe looking for items that are worn out, need repairs, or fit improperly. Refer to the handout *What Do Those Fold Lines Mean?* and *Tips For Fitting* to help participants with decisions.



2. Get organized. Discuss ways to organize a closet.
3. Decide on a basic color plan for each family member.
Building around neutrals as a family will permit clothing to be passed to other members. Bring paint chips from a paint store to help members visualize these colors.
4. Plan for variety.
Show examples of basic apparel styles, such as T-shirts, slacks, and sweaters. Discuss options they could use to vary these pieces for working in an office, going to a sporting activity, or cooking at home.
5. Plan for flexibility.
Have members refer to *What Worked? What Didn't?* handout. They will be looking at the hours spent in various activities and rank them based on the interests of their household.
6. Buy basic styles — they last longer.
Refer participants to the handout *Basic Styles for Everyone*. As they think about their lifestyle and the wardrobe plan, they will be determining how much of their wardrobe should be divided into work, school or lifestyle apparel.
7. Find good quality — it pays.
The handout *Quality Details in Apparel* will help participants recognize what details to look for when evaluating apparel construction. Discuss what on-grain and off-grain mean, and what effect it will have on apparel (garments twist around body).
8. A well-planned wardrobe doesn't have to cost a fortune.
Ask participants about their shopping strategies for apparel.
9. Take care of the clothes you have.
Read and follow care labels. Refer to *Spot Attack* for help in stain removal tips, *Wash Wonders 101* for washing and label information, and *Drying Details* for drying tips.

Distribute the handout *Measuring the Body* and discuss how to get family members measurements. Recommend carrying a tape measure at all times. Having this information with a tape measure makes shopping easier. Apparel can be laid flat and quickly measured across the garment at fit points to check if sized to fit.

Discussion Questions:

- Q. Begin with describing some terms: style, basic styles, and fit points. You may have others after discussion.
- A. Style refers to the cut of the structural lines within a garment, such as a double-breasted blazer, an A-line skirt, and straight leg pants.



Basic or classic styles are no-nonsense pieces that endure over the years with clean simple lines. Cardigan sweaters, straight skirts, and button-down shirts are examples.

Fit points are locations where measurements are generally located on the body, chest/bust, waist, chest, hip, and pant length.

Q. Why is the wardrobe plan a useful practice?

A. Planning allows time to consider budget and clothing needs. Using time and budget resources wisely lessens the chances of making spur-of-the-moment decisions which may not consider current resources.

Q. What items would have priority after a wardrobe analysis is done?

A. These will vary among participants but may include undergarments, coats, or gloves.

Q. Why is one basic neutral color recommended?

A. From this one color you can add coordinating garments to allow your wardrobe to be better utilized with few items.

Q. How can you tell if a garment fits well?

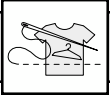
A. When worn the garment is without pulls, gaps, or folds (pulls and gaps result from areas that are too small. Folds develop in areas too large from any side.

Further discussion and activities:

- Discuss how families might develop a clothing budget, and whether the amount varies seasonally. Have them begin recording clothing expenses for their family if they have not done so before.
- How do participants define wants and needs? Discuss ways to help family members realize the difference between wants and needs.
- Give participants a variety of garments of different colors, then see how many combinations they can put together.
- At the next meeting, participants could bring unneeded items from their sorting process to share with other participants.

Growing Kids – What Are the Options?

Planning a child's wardrobe can be a daunting task. Growing children need clothing that is easy to care for, durable, comfortable, and practical. Because they grow so quickly, the clothing may not even have a chance to wear out. Having a plan is essential. Buying only what is needed will be based on the number of outfits a child typically goes through in a day, plus the frequency of launderings for the family. If participants wash once a week, and a child goes through two outfits a day, that child will need 14 outfits/week. The number will vary based on the age of the child. Babies may need three to four outfits/day, children ages 7 to 10 may need only one.



Sizes for children's clothing varies from brand to brand. Sizing is also categorized by age, but is not a realistic measure for most of the population. Recommend carrying a measuring tape to check clothing measurements against the child's measurements they have recorded. Refer to *Measuring the Body* for how to measure children and record the information on the chart given on the activity sheet, *Growing Kids - What Are the Options?*

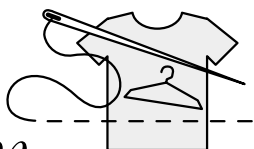
Sizing Charts:

- Infant and toddler sizes are sized to fit over diapers. Ex: 3 months, 24 months, 2 T (toddler)
- Young children's sizes are based on body measurements, height, weight, NOT age and range from 2 to 6X. Ex: 2, 4, 6, 6X.
- Older children's sizes are based on body measurements, and range from 8 to 18. Generally, after size 14, most children fit into adult sizes.

Discussion Questions

1. Discuss with the group what options they have used for "passing along" children's clothing. Perhaps they can swap clothing with friends who have a similar need.
2. Discuss what the typical needs are of their family to arrive at the number of clothing items they need.
3. Have measuring tapes available for participants to check out if they do not have one.
4. Demonstrate how to measure ready-made clothes. Spread garment out on flat surface. Measure across fit areas (bust, chest, neck, waist, hip, arm length). For areas where garment is front and back, take the measurement and double it. This measurement should be 2" to 3" larger for bust, chest, and hip areas. Most people refer 1/2 to 1 inch of additional length at the waist.

Before administering the lesson, ask participants to fill out the self-evaluation sheet. Following the lesson, ask them to fill out *My Plan for Improving My Skills*.



Wardrobe Planning

1. Evaluate your present wardrobe.

The first step is to look at what each family member currently has. Begin with one family member and have them try on everything, checking for fit and condition, then sort their clothing into three stacks. One for currently wearable items, one for clothes that are okay but need repairs, and one for clothes that are disliked, worn out or do not fit. Only put back into the closet clothing that can and will be worn.

Look at the stack of clothes that are not wearable. Ask if any of these items can be passed on to another family member, mended or repaired so they are wearable, or sold at a family garage sale. If the garments were disliked, was it due to poor design, the wrong color, poor workmanship, or too small/large? Have family member's look at the *What Worked? What Didn't?* activity sheet to understand why some garments are favorites and others are not. Completing the activity will simplify decisions about future purchases. Clothing identified for repairs should be boxed or stacked in another location. Set a reasonable time frame for repairing. Any items remaining after that date should be removed to alleviate clutter.

2. Get organized.

Organize your closet. With today's hectic schedules and lifestyles, finding time to organize closets can be difficult. After the initial sorting process outlined above, make time once a month, to straighten closets and drawers, it will save time in the long run and look less cluttered.

3. Decide on a basic color plan for each family member.

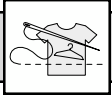
Neutral colors permit individual clothing pieces to be interchanged and worn differently. Selecting a neutral color as the core of each individuals wardrobe creates a seasonless plan with numerous variations. Add colors that are lighter, blend or contrast to coordinate with the neutrals. When the budget does not allow for separate wardrobes for summer and winter, purchases can be planned so clothing can be worn all year. Let sweaters, shirts, and undergarments help family members adjust to seasonal weather changes.

Basic Neutrals

White * Tan * Black * Camel * Ivory * Beige * Navy * Brown * Gray * Taupe.
Look at the items remaining in each members' wardrobe. Is there a particular color that is repeated often? Core colors are neutral colors that frequently occur. These core colors are then building blocks to begin the process.

4. Plan for variety.

Extending a wardrobe begins with mixing and matching garments in a variety of ways. Begin with the core neutral garments and add other classic colors, prints, and fabrics



to add interest or variety. Other color choices that are considered classics include olive, teal, royal, burgundy, forest and plum. Prints choices include plaids, paislies, and small prints. Fabrics with texture add interest and variety.

5. Plan for flexibility.

Flexibility can mean several things. Weight loss or gain, growth, even the activities the family participates in will impact the wardrobe plan. Selecting garments that permit each member to shift gears requires flexible go-anywhere clothes. At the bottom of the *What Worked? What Didn't?* activity sheet, list the hours of each activity each family member does each week. What activity does the family participate in? Are special garments required for these activities? The more hours spent in specific activities will determine the number of garments needed. Some clothing may share similar needs, while others have more specific requirements.

6. Buy basic styles — they last longer.

Simple styles remain fashionable and define what classic styles are all about. Frilly designs go out of style quickly. When adding “trendy” styles to your wardrobe, be sure the fit of the garment is correct and coordinates with numerous pieces in your wardrobe.

7. Find good quality — it pays.

Quality and high prices are not always equal partners or guaranteed. Quality can be found at every price level, and will vary within a single store. Quality clothing will perform better and last longer than clothes of poor quality. Refer to the handout on *Quality Details in Apparel* to help you recognize what to look for.

8. A well-planned wardrobe doesn't have to cost a fortune.

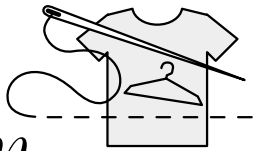
No matter where you shop, or how much you spend, there are ways to manage purchases. Take advantage of clearance or end of season sales to purchase seasonless basic apparel items. Shopping at outlet stores, resale shops, Goodwill stores, and garage sales will help maximize your clothing purchase to fit within your budget and wardrobe plan. ***Just be sure to check all apparel purchases for damage and defects before purchase.*** Insure that zippers work, all buttons are sewn securely, seams are together, and there are no holes or snags.

9. Take care of the clothes you have.

Read and follow care labels. Dry-cleaning costs substantially more than laundering. Some clothes require special handling, such as hand washing. If you are not willing to spend the extra time required, find a different garment. Refer to *Spot Attack* for help in stain removal tips, *Wash Wonders 101* for washing information, and *Drying Do's* for drying tips.

10. Determine the clothing budget for the family.

Developing a master clothing budget for the family provides a framework for each person to work within and benefit from. Individual clothing needs should also fit into the master plan for family harmony. Dividing the budget by the number of family members, will determine how much each person is afforded. Keep in mind that some family members may require more and some less. Sports activities or growth spurts in children may cause spending needs to shift. As youth become more responsible, allowing them the flexibility to set the priorities for their clothing purchases can be a goal.



What Worked – What Didn't?

After completing a closet inventory, you separated the clothing into three categories – garments you do wear, garments that need repairs, and garments you do not wear.

Examine the clothing you do not wear and ask why:

- Are there certain fabrics you like the looks of, but don't enjoy wearing?
- Do you consistently buy a size too small or too large for yourself? For your children?
- Do you buy colors you like but find them impossible to coordinate with the rest of your wardrobe?
- Can you identify brands or types of construction that lose their shape or are poorly constructed?
- Are some fabrics too light or heavy for the season?
- Do you buy fads that quickly go out of style?

Examine the clothing you do wear for similarities in the style, color or fabric. What made them attractive or important to keep in your wardrobe? Analyzing the likes and dislikes will give clues to what really works for each individual.

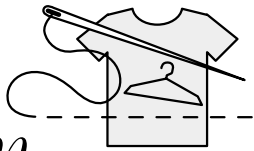
The following questions will help you decide what to look for when shopping for clothing to add to your wardrobe:

I like this outfit is because:

- ☐ color is a favorite
- ☐ style is pleasing and matches at least two other garments in the closet
- ☐ fit is comfortable
- ☐ style can be worn for work
- ☐ style can be worn for at home or for activities
- ☐ clothing was from someone special
- ☐ fabric is very easy to care for

As you restock your wardrobe, keep the written inventory list with you for items you need for the coming season. Be sure the list is in writing, and with you when shopping. The written list will help you resist buying what you and your family don't need. Consider this a general "most wanted" list for the upcoming season.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



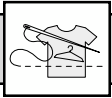
Quality Details in Apparel

The truth is in the details. Perhaps you have heard this phrase before, but when thinking about apparel, it does not usually come to mind. Truth is it does apply, and this handout will help you begin to see whether quality exists in the apparel you consider for purchase. Quality does not always mean spending a lot of money. Many manufacturers and retailers add these “quality details” in apparel at numerous price levels. These details may typically have been used only on expensive items, but they are appearing more frequently at lower prices to entice buyers.

Often the relationship of price to quality is labeled value. Consumers decide an item is of fair value when the quality delivered is comparable to the price they paid. Therefore, overpriced apparel has few quality features, and a bargain offers more quality features in terms of the price. Always remember quality can be found at any price level.

So what quality details should you look for? The list can be lengthy but begin with these simple steps:

1. Fabric is the basic foundation of apparel. Fabric is woven by yarns which run up-and-down or across. When apparel is cut from the fabric, it too should run up-and-down and across. Sometimes apparel is not cut correctly, and actually causes clothing to twist around the body. This is called off-grain, and cannot be corrected. Off-grain apparel is a result of poor quality control during the manufacturing process (photo example on Handout D).
2. Manufacturers sometimes use bias cut sections to cut costs. Bias cut apparel is exceptionally difficult to sew, tends to stretch out of shape, hang unevenly at the hem, or sag, compromising quality.
3. Patterned fabrics should match along seamlines in both directions, across and up-and-down. Matching indicates quality because of the additional fabric and labor involved in cutting and sewing.
4. Colors should match between pieces and is an indicator of quality. Fabric, thread, buttons, zippers, even elastic, should match, function and be durable. Manufacturers know the performance characteristics of each fabric and should base decisions on how well these pieces perform in accordance with the fabric.
5. Seams within a garment should be securely sewn. Check to make sure threads have not popped or ruptured along all seams. Seams with serging are more secure and of higher quality as long as the correct tension was used when sewn. Just be sure to tug along a seam to see if it has enough tension to resist popping (photo example on Handout D).



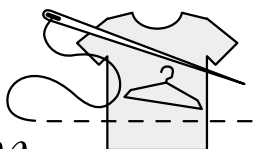
6. Design features within apparel can also help you judge quality.
- Collars** should be smooth as they lay against the body. Corners should not roll or pucker, and each end of the collar the same length and shape.
 - Sleeves** need to be of sufficient width so the arm can comfortably move, and long enough to cover the wrist when bent. Look at how the sleeve hangs on the body to see whether it twists or not. Apparel that twists around the body indicates off-grain cuts and lesser quality.
 - Waistlines or waistbands** should appear smooth and even around the body. Foldlines along the waistband indicate the band is too small for the wearer. Ideally, waistbands should be 1 inch more than the actual waist measurement. This inch waistband provides for ease, should the wearer want to tuck in a shirt or prefers a looser fit when sitting.
 - Hems** should appear without puckers along the garment, of even width around the garment, and be inconspicuous from the front side. Hems in permanent press fabrics cannot be let out if needed.
 - Closures** such as buttons, zippers, and hook-and-loop tape should function and be durable. Closures should not “gap” when worn. Gaps indicate the garment is too small or that the closures are incorrectly placed for the wearer.

In addition, closures should function as follows:

- Buttons should pass through the buttonhole, and be securely sewn to the fabric.
 - Zippers should be as inconspicuous as possible, unless designed as a decorative feature. Before purchase, be sure zippers are operating and securely sewn to the fabric. Sale items often have broken zippers or popped stitching.
 - Hook and loop tape should be securely sewn. The coarser the hooks and loops are, the better the holding power of the tape. Be sure to lock the tape together before laundering to prevent damage to other apparel in the wash load. Do not iron.
 - Cords or ties should not be used on apparel for active children. The cords can become entangled and possibly harm the child.
7. Fit of the garment to the wearer is the final indicator of a quality decision. Alterations if needed, can be an additional expense. Be sure to check the fit by sitting, walking and bending with the garment on the body. If you have to pull or tug at any area of a garment after moving, sitting or bending, the garment is improperly sized for the wearer. Check the mirror, looking at the front, side, and back for horizontal wrinkles in the garments. There are no standard sizes in apparel, sizes vary by style. **Garments that fit poorly will generally make the wearer appear larger, so use the mirror as your guide instead of the size on the label.**

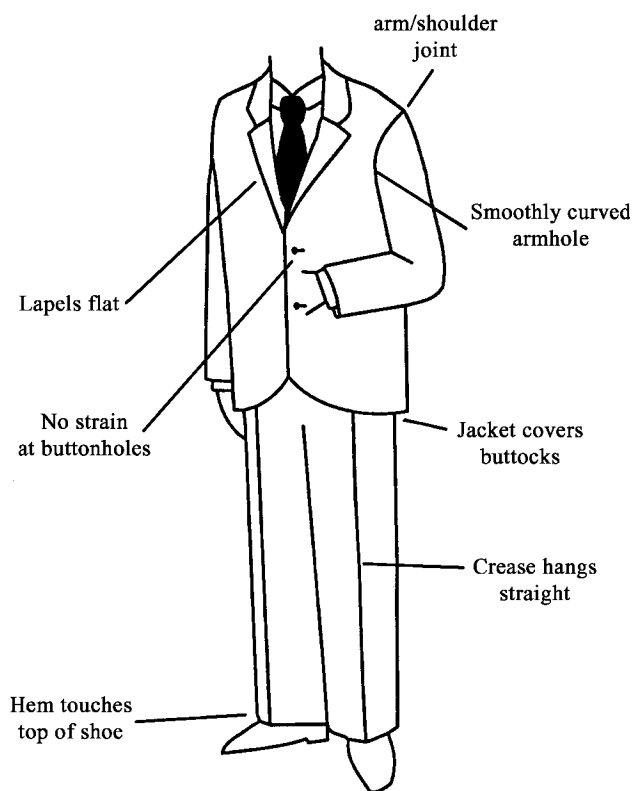
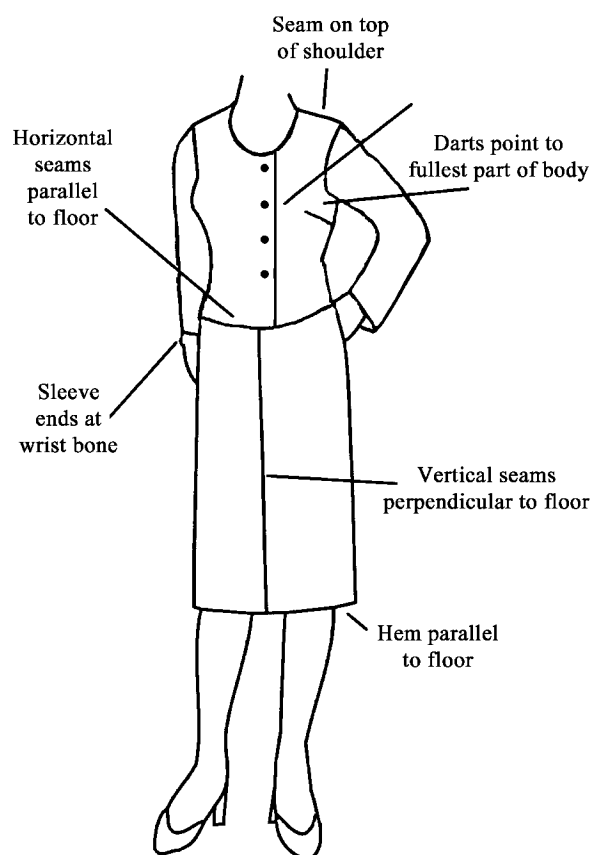
Prepared by:

*Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension*



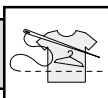
Tips for Fitting — What Do Those Fold Lines Mean?

Good fit is crucial for satisfaction with a wardrobe. Finding the colors, styles and prices your needing is often easier than finding apparel to fit your shape. It is important to remember to use the size label sewn into the garment as a starting point when fitting clothes. Let the mirror guide your decision for evaluating the fit, and then be sure to check for comfort while sitting, walking, bending, and reaching in the apparel before purchasing.



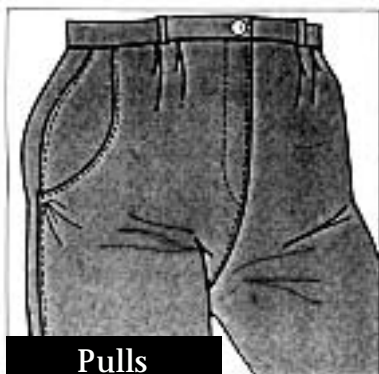
*Adapted from: Patty Brown, Janet Rice, Ready-to-Wear Apparel Analysis, 2nd Ed., 1998
Prentice Hall*

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Tips for Fitting

Handout D



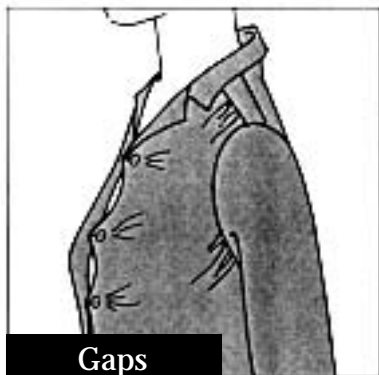
Pulls

Horizontal wrinkles under tension indicate apparel is smaller than the body just above or below the wrinkles. Switching to a larger size or cut will alleviate this problem.

Loose, vertical wrinkles indicate apparel is too large. Switching to a smaller size or category solves this problem.

Vertical wrinkles under tension form when the garment is too short or small in an area.

Loose, horizontal folds indicate a garment is too long at that location for the wearer.



Gaps

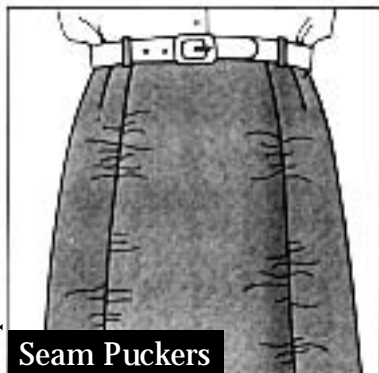
Combination Fitting Solutions

After checking fit for tops and bottoms, the wearer may be a combination of categories. By choosing from different categories, solving the fitting problems is easier and affords more options. Knowing what to look for to diagnose fit problems leads to better satisfaction when shopping. Due to an increased awareness about fit problems, size and classifications, participants can manipulate these variables to better fit their families.

An example: A women trying on a blouse, vest and pant. The sleeves of the blouse are too long and fall onto her wrist, and there are loose, horizontal folds along the waist. The pants have horizontal wrinkles under tension at the hip and tense, vertical wrinkles in the crotch. To correct the fit of both the blouse and vest, she should try a petite in the same size. To solve the pant dilemma, a women's size to fit a fuller figure and that has a longer crotch length.

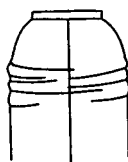


Off Grain



Seam Puckers

Tense, horizontal wrinkles = too tight



Skirt too tight through hips

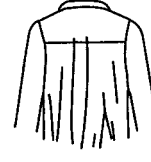


Jacket too tight through shoulders

Loose, vertical folds = too loose

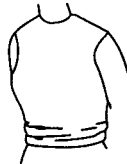


Sleeve too loose



Shirt too loose through torso

Loose, horizontal folds = too long



Bodice too long at waist

Tense, vertical wrinkles = too short



Pants too short in crotch

Diagonal wrinkles point to body bulges

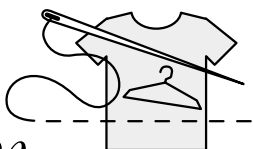


Bodice too tight across bust



Pants too tight across abdomen

Adapted from: Patty Brown, Janet Rice, Ready-to-Wear Apparel Analysis, 2nd Ed., 1998 Prentice Hall



Creating a Seasonless Wardrobe

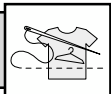
Selecting apparel to create a wide variety of options or “looks” relies on the mixing and matching of key pieces within the wardrobe. Apparel becomes a wardrobe when you can match the parts in color and style to fit all your ordinary clothing needs. When looking to add other pieces, always ask yourself “what can be worn with this piece?” Are other accessories already in your wardrobe able to coordinate with it as well?

Using your written inventory list of needs when shopping helps curb impulse purchases. Shop for value – but where do you find value in clothing? Try discount stores, off-prices stores, manufacturer outlets, used clothing merchants, and garage sales. Discount stores sell basic clothing at low prices, but may use inexpensive fabric or production shortcuts to cut corners. Use the handout *Quality Details in Apparel* to help you learn what type of quality features to look for when shopping. Off-price stores sell designer lines at reduced prices, sometime slightly behind the season. Manufacturer outlets sell irregulars, damaged goods, last year’s styles and lines they were unable to sell to other clothing stores. Used clothing stores and garage sales can be a very good source for high quality, and by mixing contemporary with older styles makes a personal statement about the wearer’s creativity.

When shopping, just remember to ignore sales that promise you “savings.” Banks are for saving, stores are for spending. Stores often inflate normal retail prices as a springboard for increasing sales volume. The statement “40% off” commonly translates to – our normal selling price. By being a regular customer you will recognize when a sale is to your benefit. Usually when the garments have been in the store for a while, sales prices will reflect a drop in price. New merchandise brought in for special sales offering a percentage off, will generally rely on inflated pricing to entice shoppers.

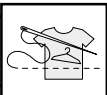
Why all the effort spent doing this wardrobe planning stuff? Mainly because a well-coordinated and matching wardrobe will make it seem like you have more clothes AND you have spent less than you did previously. Why? Because you are planning purchases that fit within your budget, into your wardrobe, and buying at places that afford you more value for your money. An added bonus – is that you will have less stuff cluttering up your closet!

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Wardrobe Planning – Inventory Guide Handout F

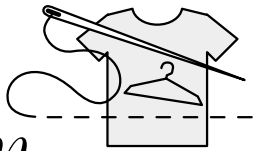
	Clothes I have & color	Clothes I need & color	Estimated Cost & Approx. date of purchase
Children			
T-Shirts/Tops			
Pants/J Jeans			
Shorts			
Dresses			
Skirts			
Shoes Play/Dress			
Coats			
Hat/Cap/Gloves			
Outdoor Jackets			
Sport Apparel & Equipment			
Teens			
Tops/T-Shirts			
short sleeve			
Tops/T-Shirts			
long sleeve			
Shirts/Blouse			
Slacks/Jeans			
Sweaters			
Sweatshirts/			
sweatpants			
Skirts			
Shorts			
Blazers/Sport Coat			
Suits			
Coat			
Outdoor Jacket			
Hat/Cap/Gloves			
Swimsuit			
Sport Clothes/			
Equipment			
Women			
Tops/T-Shirts/			
Blouses			
Shorts			
Sweaters			
Dresses			
Skirts			
Slacks/Jeans			
Blazers/Suits			
Jacket/Coat			
Sweatshirts/			
Sweatpants			
Swimsuit			



Wardrobe Planning – Inventory Guide Handout F

	Clothes I have & color	Clothes I need & color	Estimated Cost & Approx. date of purchase
Men			
T-shirts/Shirts			
Short sleeve			
T-shirts/Shirts			
Long sleeve			
Dress shirts			
Short sleeve			
Dress shirts			
Long sleeve			
Sport shirts			
Slacks/pants			
Jeans			
Sport Jacket			
Suits			
Outdoor Jacket			
Coat			
Hat/Cap/Gloves			
Swimsuit			
Everyone			
Pajamas/Gown			
Underwear			
(Bra/Slip)			
Underwear			
(Brief/Panty)			
Socks/hose			
Shoes			
(Dress/Casual)			
Boots			
Uniforms/			
Work Clothes			

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Basic Styles for Everyone

Basic apparel styles are capable of adapting to multiple uses, style survives the test of time by featuring minimal details, “middle of the road” styling, neutral fabrics and colors, and sturdy construction. These basic styles last so long because they are immune to fashion swings or job changes. Wasting wardrobe dollars for items not in your wardrobe plan clutters the closet and wastes resources.

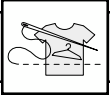
Building a wardrobe on a cost-effective basis revolves around the needs identified in the wardrobe inventory and by your work profession. Begin with two basic colors of basic styles and choose seasonless fabrics that work with other basics. Having just five basic pieces provides at least twelve different combinations.

Depending on whether you need apparel for work, school, or play, apparel that is able to crossover is key. Whatever you choose, do realize that appearance counts and transmits messages about you wherever you go. Condition is always one of the basic criteria to use when considering items to wear to work and varies by job or profession. If there is no written company policy on dress or your transition to another profession, observe the type of dress worn by other associates in similar environments.

T-shirts, jeans, cardigan sweaters and jackets, blazers, and slacks are all items worn by multiple age groups and environments. Basic styles usually vary only slightly over time by changing the width of the leg or lapel.

Office/Business for Women

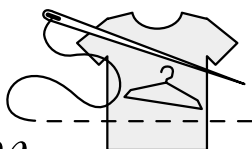
- **Basic three-piece suit** (jacket, skirt, pant) in a dark neutral. Medium-width collars and lapels or cardigan style jackets. Jacket hemline ends slightly below widest part of hip for taller figures, and slightly above for shorter figures.
- **Tops** to wear with the suit can be more colorful as long as their condition is good. Begin with a few basic colors and styles to work with your suit color. Set-in sleeves of medium fullness ending at wrist bone.
- **Cardigan sweater twin-sets** provide many options. They are easy to dress up as needed with a scarf or pin, can be worn with or without the cardigan, and mixed or matched with other pieces. These twin-sets are also versatile for business or casual wear.
- **Pants** that are straight-legged without a cuff. Pleated pants should lie flat across the front without gaps at pocket. Pant hems should be at top of the shoe heel.
- **Skirt** basic styles are straight, A-line, or slightly gathered, have narrow waistbands with side or back closure.
- **Shoes** keep it simple – select black.



Office/Business for Men

- **Basic suit**, (blazer, slacks) in a dark neutral
- **Shirts**, basics to begin - white, blue
- **Tie** (solids, small print, paisley or stripe) medium width
- **Slack**, select either from pleated or flat front styles
- **Socks** to match shoe or slack
- **Shoes**, basic black – Loafers for casual or dress-down days

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Measuring the Body

Having your current measurements with you while shopping makes decisions easier about clothing. By comparing your measurements to those of clothing you consider purchasing, you will provide a general idea whether garments will fit.

Sizes are classified according to sex, age, and body type of consumers. This classification system is generally accepted by apparel manufacturers, and vary by the market each apparel line targets.

Womenswear Sizes

Correlate size with bust, waist, and hip measurements and categorizes into *Misses*, *Women's*, and *Junior's*. Misses are for adult women of average height and proportions. Women's are for shorter women with full mature figures. Junior sizes fit short, slender, and youthful body types. *Petites* are sized for shorter overall proportions and length, while *Tall* sizes have longer proportions and additional length.

Menswear Sizes

Jacket sizing correlates with the chest measurement and height. *Pants* are sized to waist and inseam measurements. Inseams are most easily measured by measuring a pair of pants that are the desired length. Place the tape at the intersection of the inside crotch and then out to the end of the leg. Dress slacks offer regular and long rise styles (which lengthen the crotch). *Shirts* are sized based on the neck and sleeve-length measurements. Younger men's shirts have a smaller neck and trimmer cut through the torso. Sleeve length is measured from the center back of the neck, across the shoulder then out to the elbow and down to the wrist bone. (See illustration).

Girls Sizes

Sized according to height, weight, waist, and hip measurements. Generally, sized for girls 7 to 11 years of age, with an undefined bust and slightly defined waist. *Slim*, *regular*, and *plus-sized* categories often are designated. May also have categories of *preteen*, *teen*, and *junior*.

Boys Sizes

Sizes based on height, weight, chest, and waist measurements. Generally, sized for boys 7 to 17 years of age and based on developing shoulders and a defined waist. Other categories based on body build are slim, regular, and husky.



Infant, Toddlers' and Childrens' Sizes

Sizes are based on height and weight. Age is often listed as a size (ex. 3 months, 2T), but is not a reliable indicator for fit. Place the measuring tape at the various locations shown below. Careful not to stretch or pull the tape too tightly. Bust or chest, and hip measurements are located at the fullest part of the body.

For Every Member of the Family

Taking your own measurements can be difficult, so ask a friend or other family member to help. For the best results, wear the undergarments needed for the garment style your considering. Locating the natural waistline can be tricky, use a string long enough to tie around your middle; move or twist; and the string will roll into the natural waist.

Record and date the information, then store for future reference.

Make one for each family member, and note any specific needs identified in the wardrobe inventory.

Name:

Date:

Bust/Chest:

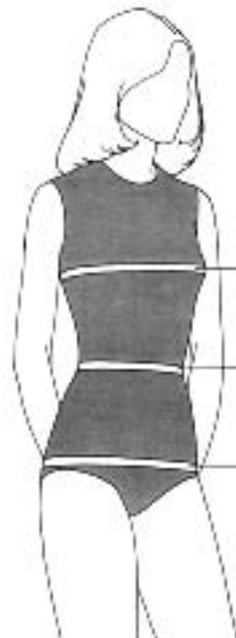
Waist:

Hip:

Sleeve Length:

Inseam Length:

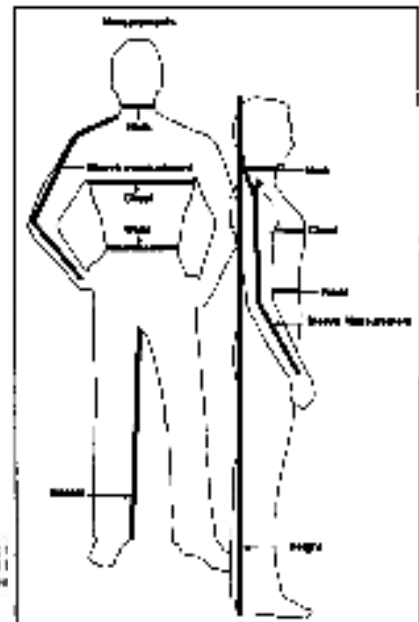
Neck:

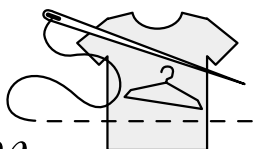


Measure full bust by bringing measuring tape around widest part of upper arms, across full bustline.

Measure waistline at the natural waistline (place string around middle to locate it, as indicated above).

Measure hips across the fullest part, usually 7 to 9 inches (18 to 23 cm) below the waist. Measure around the fullest part.





Growing Kids – What Are the Options?

Kids like clothes that feel comfortable, fit properly, and allow free movement. Color is second to fit in children's clothing preferences. Younger children like bright and primary colors. Pale colors and simple designs are preferred by older children. Clothes that are easy to put on and take off help children become independent. Be sure to discuss each child's preferences.

Children's clothing needs can strain a family budget due to their growth patterns so planning is essential. There are selections available when shopping for apparel that will maximize the purchases for as long as possible.

Growth features to look for:

- undefined waistline or partial elastic waistbands
- armholes that are larger
- raglan style sleeves
- two-piece garments
- deep hems or cuffs
- long tails (the length of a shirt below the waist) on shirts and blouses
- no tight cuffs or bands
- stretch or knit fabrics
- adjustable shoulder straps

There are some safety concerns you should be aware of when shopping for children's apparel. Clothing should not be big or so loose that it could become caught during play. Avoid big sleeves and pockets, or loosely attached belts/sashes; drawstrings located anywhere; skirts or pants so long they create tripping problems and caps or hoods that obscure vision.



Growing Kids – What Are the Options? Handout I

Child's Name: _____

Date Measurements were taken: _____

Height: _____

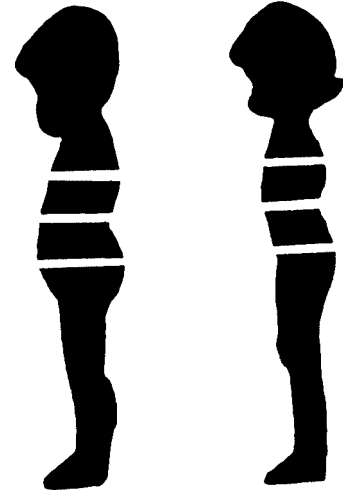
Weight: _____

Chest: _____

Waist: _____

Shoe Size: _____

Sock Size: _____



Wardrobe Planning

Needed Items

_____	_____
_____	_____
_____	_____
_____	_____

Colors needed

_____	_____
_____	_____
_____	_____
_____	_____

Back of card

For Kids and Adults

Fitting ease is extra room built into a garment when designed. The ease is there to allow movement (bending or reaching), comfort, and size fluctuations. Some people prefer a tighter fit, while others prefer garments to hang from their body.

Fitting Ease – Indicated on Figures

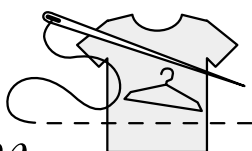
Bust or Chest(M/F)	2" - 3"
Waist (M/F)	1"
Hips (M/F)	2" - 3"

Prepared by:

Marla Day, Extension Associate

Apparel, Textiles, and Interior Design

Kansas State Research and Extension



Spot Attack

Handouts for the lesson *Spot Attack*:

- Putting Together a Stain Kit
- Blot it Out! Stain Removal
- Special Laundry Aids or Just the Basics

Your sorting the laundry, only to discover mustard on a new white T-shirt, grass stains on a favorite pair of jeans, and the load of white's washed last week are now pink. What do you do now? Having a few simple tools at your disposal will help during these anxious moments.

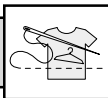
Time is the greatest obstacle to overcome against permanent stains. Quick, knowledgeable action keeps clothing in wearable condition and ultimately, reduce replacement expenses. Begin by assembling your arsenal to tackle these problem stains. Having them together, in one location of the home, with the stain guide, *Blot it Out* as a reference, maximizes your efforts and improves results.

Stain removal involves several steps, so bring along your patience. A product's ability to remove stains depends on how quickly you take action, the type of stain, fabric, and whether the stain has been "set" with heat.

Tips:

- When working with the stain removal products, always work on a non-porous surface like a counter-top.
- When in doubt of what a stain is, rinse or soak in cold water first.
- Check color fastness of a garment to stain removal product.
- When using a bleaching product, treat the entire item. This avoids uneven changes in color, should they occur. Always launder garments after applying a stain removal product.

Caution: Be sure participants understand that some stain removal products are flammable. Stress to them that some products need to be used in a ventilated area to avoid a possibility of fire.



Activity

Demonstrate stain removal products and methods.

Point out that the absorbent materials should be changed or rotated as stain transfers to them.

Methods:

- **Sponging** – Placing the stained area, face side down, over a pad of absorbent material. Use a cloth to lightly sponge the stain removal product onto the center of the stain. Work from the outer edges of stain toward the center. Working from the edge of the stain prevents the stain from forming ring.
- **Flushing** – Used to remove the released stain and removal chemicals from the fabric. Emphasize using small amounts of liquid so the stain does not spread.
- **Tamping** – Use a brush to assist with removing stains. Use an up and down motion, not back and forth which would damage the surface.

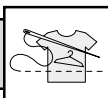
Discussion points

Stress Safety.

- Store all chemicals out of reach of children.
- Store away from food products. Do not reuse empty containers.
- Reclose containers after each use to conserve the product and prevent spills.
- Store in original containers in case of accidents.
- Encourage them to read product labels and warnings.
- Never combine stain removal products – toxic fumes result when bleach and ammonia are mixed.
- Only use solvents in well ventilated rooms, and explain what ventilated means. Diesel fuel and/or gasoline stains create flammable hazards.
- Never use flammable products near open flame or pilot lights.
- Garments with fuel stains should be aired outside until no fumes are present, before placing in a washer or dryer.

Demonstrate or discuss how to test stain removers in an inconspicuous location of a garment. What should be observed? Color change – should treatment lighten the dyes or damage the fabric, rinse immediately. Try a different stain remover on the stain.

Discuss the benefits of soaking, *prewashing* and *pretreating* stains. Soaking loosens heavy soils, especially protein-based stains. *Prewashing* provides an agitated wash cycle in the washing machine. *Pretreating* involves individual treatment of spots and stains. What are the benefits of these extra treatments?– easier removal of existing stains.



Special laundry aids or just the basics? This handout emphasizes comparison costs between laundry aids. Do the costs of these special-use products show better results than cheaper alternatives? According to a consumer testing agency, no commercial or homemade product would consistently remove every stain from every fabric. Often you only need the basics to remove stains to avoid stressing the family budget. The *Stain Kit*, Handout A, includes all the ingredients needed to remove most any stain. Remind them about the time factor when dealing with stains, and that some stains may be impossible to remove.

Activity

Go to the local grocery or discount store and write down all the new laundry products. Read the label for the ingredients, usage recommendations, and record the price and weight. Compare the costs of the basic home remedies given in the handout to the expense of the laundry products.

One example, a new bleach is now offered in a gel solution with a higher concentration of chlorine. Even using less of the higher concentration level bleach per load, the overall cost per load increased. Is the convenience of a gel worth the added expense?

Discussion point

Recently, laundry disks were introduced to consumers claiming cleaning power without the use of detergents, bleach, or other laundry aids. These products have been proven to be ineffective by industry and university researchers. Discuss other products or gimmicks they may have bought or seen recently to aid in the laundering process. How would they evaluate a products' performance? Example: Dye magnets

Other Resources

4-H Clothing and Textiles Curriculum, Level II, *Care and Maintenance – Mystery Stain Removal*

Soap and Detergent Association Web site: <http://www.sdahq.org/>
<http://www.sdahq.org/>

International Fabricare Institute Web site: <http://www.ifi.org/> <http://www.ifi.org/>

Before administering the lesson, ask participants to fill out the self-evaluation sheet. Following the lesson, ask them to fill out *My Plan for Improving My Skills*.

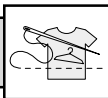
Putting Together A Stain Kit

Assembly Required

Time is the greatest obstacle to overcome against permanent stains. Begin by assembling your tools to tackle these problem stains so you can act quickly. Having them together in one location of the home, with the stain guide *Blot it Out* as a reference, maximizes your efforts.

Stain Removal Kit

Product Type	Form	Use	Best at... or Special Cautions
Detergents	Powder	removing soil	removing clay and ground in dirt
	Liquid	removing soil and oily stains	removing food, greasy or oily type stains
Soap	Bar *no added fragrances	removes crayon when combined with washing soda ingredients	buildup of fabric softener, perspiration and tobacco stains
Detergent Boosters	Powders or liquids	increases effectiveness of detergents	useful with hard water
Bleaches	Chlorine Liquid or Gel	stain removal, whitens and brightens, repeated use weakens fabrics 5.25 % or 6% solutions sold	disinfectant, whiten
	Hydrogen Peroxide	Stain removal, whitens, weaker solution 3% bleach	milder solution able to whiten fabrics
	Oxygen	stain removal; slower than chlorine type	safe for most colored fabrics
	Color removers	reduce or completely remove colored dyes from apparel	removing rust or dye stains from white apparel
Enzyme Presoaks	Powder	removing protein type stains	
Prewash Stain Removers	Aerosol and liquid	work best when stain is fresh, pretreat then wash immediately	protein or oil-based stains in polyester fabrics
	Stick	work on dry fabric	can be left for 3 to 4 days before laundering
	Gel	apply ASAP to stain, can be left for up to one week before laundering	<i>bright or fluorescent colors should be washed immediately</i>



Putting Together a Stain Kit

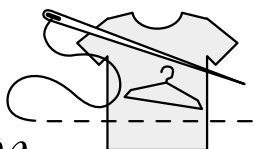
Handout A

Type	Form	Use	Best at ... or Special Cautions
Dry-cleaning solvent	Liquid	extremely flammable – removes oily or greasy stains	repeated light applications more effective – always rinse before washing in machine
Acetone	Liquid some glues	removes ballpoint ink and	ventilation required – flammable and not for use on acetate fabrics
Ammonia	Liquid *No added color or fragrances	good grease cutting agent	Helps to keep anti-perspirant stains from developing. Never mix with bleach or use on silk or wool fabric.
Alcohol	Liquid 70%-90% concentration	dissolves and removes color in some stains	dilute with water – flammable and poisonous
Rust removers	Powder	removes rust, carefully follow manufacturer's directions	safe for white fabrics only
Waterless hand cleaners	Paste or lotion	removes stubborn, greasy dirt	contains petroleum distillates
Vinegar (white)	Liquid	combined with other products to remove general stains	removes yellowed anti-perspirant stains
Borax	Powder	useful for removing tannin based stains	softens hard water

Absorbents - A supply of clean, white materials is used to absorb stains during the removal process. White is recommended, in order to observe the transfer of the stain from the clothing to the towel. Have these on hand:

- Paper Towels
- Towels
- Cloths
- White facial tissue
- Cotton-tipped swab

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Blot It Out! Stain Removal

Stain Types

There are four different types of stain categories – protein based, tannin based, oil based, or dye based.

- **Protein-based** stains usually result from foods and require an enzyme to remove them.
- **Oil-based** stains need either enzymes or a solvent-based product to remove them.
- **Dye or Tannin based** stains call for a bleaching action to lighten them.
- Some stains may be a **Combination**, treating the oil based portion of the stain first, then the dye portion of the stain. More specific methods are outlined below. For **unknown stains**, never use hot water, and treat as a combination type stain.

Always check clothing as your sorting for evidence of stains. Early treatment improves results. Following washing, check for successful stain removal before putting in the dryer. Heat from the dryer, iron, or press permanently sets stains – so checking is a necessity.

Check the recommendation on the stain removal product and the clothing care label for correct water temperature.

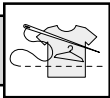
Hot 120 to 140°F Warm 85 to 105°F Cold 65 to 75°F
Water below 60°F is too cold for detergents to work.

Mystery ID

Identifying the mystery stain starts with the stain's location. Food stains are typically located along the front of the garment and would be a protein-based stain. Using the color of the stain as a guide can be confusing. Rust-colored stains appear similar to tea or coffee but become permanently set if inappropriately treated. Some cosmetics cause color loss on fabrics due to the benzoyl peroxide in them. Residue that is waxy or greasy may appear along the hem or garments, and be an oil-based stain.

Colorfastness to bleach test

Check fabrics for colorfastness to chlorine bleach before using as a stain treatment. Mix 1 tablespoon bleach with 1/4 cup of water. Use a cotton tipped swab and dip into the solution and then dab onto an inconspicuous location of the garment. Wait 2 minutes and then blot dry. Look for color loss, if none occurs the fabric is safe to bleach.



Blot It Out! Stain Removal

Handout B

Protein Stains

For new stains, presoak in cold water to dislodge, scrape away excess and then launder in warm water using a heavy-duty detergent. If stain remains after initial wash, follow with an additional 30 minutes soak and rewash. Old stains should be soaked in cold water and a liquid detergent.

Baby food
Baby formula
Blood
Cheese
Cream

Egg
Feces
Gelatin
Ice Cream
Milk

Mucus
Mud
Pudding
Vomit
White glue
Urine

Oil-based Stains

Pretreat with stick or gel for fresh stains, a solvent on dry or heat-set stains. Heavy-duty liquid or powdered detergents may be substituted for stain sticks or gels. Add a little water to a powdered detergent to make a paste, then work into the stain. Let soak for 30 minutes prior to washing. Wash oil-based stains with heavy-duty detergent in water as hot as possible or recommended by the care label. Use the normal amount of detergent for the laundry load. Be sure to inspect stain treatments before drying. Repeat the treatment if stain is still evident.

Automotive Oil
Bacon
Butter/Margarine
Car door grease
Collar/cuff soil

Cooking oil
Diesel fuel*
Face cream
Gasoline*
Hair Oil

Hand lotion
Lard
Mayonnaise
Salad dressing

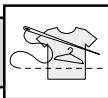
*Diesel fuel or gasoline stains must be aired thoroughly before laundering. For these stains use a heavy-duty detergent liquid or create a paste of granular detergent and rub into stains. Never place garments with fuel smell into the clothes dryer.

Tannin Stains

Wash with detergent in as hot of water as recommended safe by the care label. Never use a soap-based product to remove tannin stains, doing so sets the stain. Older, tannin stains will usually need to be treated with a diluted bleach solution to remove them.

Alcoholic beverages
Beer
Berries (cranberries, raspberries, strawberries)
Coffee
Cologne

Watercolor or washable ink pens
Fruit Juice
Soft Drinks
Tea
Tomato Juice



Blot It Out! Stain Removal

Handout B

Dye Stains

Wash in hot water with heavy-duty detergent and bleach (check care label if safe for fabric). Dye stains are troublesome to remove due to the number of steps in the removal process. First, pretreat with a heavy-duty liquid detergent, followed by a thorough rinse. If stain is still present, soak in a diluted solution of all-fabric bleach and rinse. Examine the stained area, and if stain still appears, check colorfastness of fabric to a diluted solution of chlorine bleach and water. Use with caution, colorloss from the bleaching action is irreversible. Bleach the whole garment instead of just the stained area will avoid bleached spots. Refer to previous page for directions to test colorfastness. If the stain remains after 15 minutes, it is not able to be removed.

Cherry, blueberry
Color bleeding from other garments
Felt tip pen (permanent ink may not come out)
Grass
India Ink

Kool-Aid
Mercurochrome, Iodine,
Merthiolate
Mustard
Tempera Paint

Combination Stains

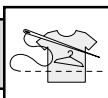
A two-step process, removing the oily portion of the stain first, followed with the dye portion of the stain. Check below for which group the stain is categorized in, and follow the directions that are given.

Group A Oil Based	Group B Dye/Tannin
Spray or sponge with a dry-cleaning solvent or treat with a stain stick. Then rub with heavy-duty liquid detergent and scrub in hot water or refer to care label in garments for water temperature.	Rub heavy-duty liquid detergent into stain and wash.
Ball point ink Candle wax Carbon paper Crayon Eye makeup Tar	Floor wax Furniture polish Lipstick Pine resin Shoe polish Printer ink
	Barbecue sauce Calamine lotion Catsup or tomato sauce Cocoa or chocolate Cosmetics Hair spray Gravy

Extra Tough Stains

Gum. Use ice to harden gum, then gently scrape or peel off excess. Pretreat with stain stick or gel. Rub with liquid detergent, rinse with hot water and launder. Repeat as needed.

Deodorant or Perspiration. Apply liquid detergent, sponge with ammonia, then wash in hottest water safe for fabric. Vinegar may lighten old stains.



Blot It Out! Stain Removal

Handout B

Nail Polish. Spot treatments with acetone or polish remover are safe for most fabrics. Exceptions are acetate, triacetate, or modacrylic which dissolve the fabric.

Mildew. Shake or brush affected areas away from the inside of the home. Pretreat darkest areas of the stain with heavy-duty liquid detergent, launder in hot water, bleach only if safe for fabric.

Paint. Latex paint should be treated quickly while stain is still wet. Soak in cold water, followed by a cold water wash. Oil-based paints need paint thinner to remove them. Treat while wet, and allow fumes to air thoroughly before laundering with heavy-duty detergent.

Pesticides. Discard clothing if full strength liquid pesticide concentrate is spilled onto them. Laundering will not remove the concentrate to a safe level for clothing, and also contaminates the laundry equipment. Otherwise, launder pesticide stains separately from other laundry. Wash in hot water using a heavy-duty detergent, a full water level, then line dry. If pesticide remains after the initial wash, repeat process. Run an empty wash cycle through washing machine. After laundering pesticide contaminated clothing.

Rust. Never bleach rust stains. Bleach sets them permanently. Commercial rust removers, available at grocery and discount stores, effectively removes and brightens white fabrics. Cautious use of these products is needed due to the toxicity of the acids present. Carefully follow manufacturer's directions.

Scorch. Caused by excess heat, permanent damage may result. Immediately rub liquid detergent into scorch mark and launder. All-fabric bleach may improve results. Melted or shiny areas cannot be restored.

Skunk. Time, air, detergent, ammonia, white vinegar, dry-cleaning solvent, and lots of water will improve the odor, but these products should never be combined. Use these products in separate steps. Kitty litter or burying clothes hit with a direct spray is recommended, especially for non-washable items like boots.

Smoke. Remove any soot outdoors. Launder using heavy-duty liquid or powdered detergent, with 1 cup all fabric bleach and 1 cup water conditioner per load. Refer to care label for recommended water temperature. Air dry. Repeat as necessary.

Urine. Prewash in cold water, then launder as usual. The process for treating mattress stains is: (1) sponged with a clean cloth and detergent (2) rinse cloth and sponge mattress with vinegar (3) let air dry (4) sprinkle with washing soda, let set for 24 hrs. then vacuum.

*Adapted from: Quick'n Easy Stain Removal, PM-858, Revised July 1997,
Iowa State University Extension, Ames, Iowa*

*Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension*

Special Laundry Aids or Just the Basics?

On a recent shopping trip to grocery and discount stores, these products prices were recorded to make a cost comparison between pre-formulated stain removal products and home-based formulas. No one product or treatment method is capable of removing every stain. Refer to the stain guide *Blot it Out!* to assist in which solution to use for which type of stain. Each stain situation has subtle differences depending on time, fabric, and the type of stain (some are harder than others to get out).

Amounts are based on store- brand products available at grocery or discount stores. Brand names are given for specific products when no substitute is available. Many of the products used in the formulas are already in the home, but used for other purposes. Developing your own stain removal products will save money and take little time and effort to make.

Label all storage bottles with the solution and date. Always keep cleaning products stored away from the reach of young children.

The Basics

Cost in ¢ to make stain removal solution.

- 8 ¢ Vinegar solution (1 part vinegar to 2 parts water)
- 4 ¢ Ammonia solution (1 part ammonia to 8 parts water)
- 3 ¢ Dishwashing liquid solution (1 teaspoon clear liquid to 1 cup water)
- 4 ¢ Enzyme Detergent solution (1 teaspoon of bleach alternative detergent to 1 cup water)
- 3 ¢ 3% Hydrogen peroxide (1 part hydrogen peroxide and 3 parts water)
- 3 ¢ Bleach (1 part chlorine bleach and 3 parts water)
- 36¢ Fels Naptha® soap (made into a paste, 1 part grated soap to 10 parts water)
- 61¢ Sub Total**

*\$2.00 7 squeeze bottle containers with caps for solutions listed above *one time expense

2.25 Solvent (cleaning fluid)

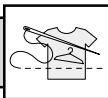
1.67 Waterless Hand Cleaner (as is)

.87 Acetone based nail-polish remover (without added color or fragrance)

\$5.40 Total

Special Laundry Aids

Stick Pretreatment	\$2.20
Gel Pretreatment	\$1.72
Powder Oxygen Bleach	\$3.25 - \$7.86
Chlorine Bleach/Liquid or Gel	.96 - \$1.68
Specialty Products	<u>\$1.95 - \$2.97</u>
Total	\$10.08 - \$16.43



Special Laundry Aids or Just the Basics? Handout C

Try first solution given to remove stain. If stain still evident, try next basic solution on list.

Stain Type	Solutions to remove stains
Protein	enzyme detergent, hydrogen peroxide, waterless hand cleaner
Oil based	solvent, Fels Naptha®, waterless hand cleaner, enzyme detergent
Tannin	dishwashing liquid, vinegar, enzyme detergent, 3% hydrogen peroxide, borax
Combination	Fels Naptha®, ammonia solution, vinegar solution

Stain-Removal Products

Stick, gel or sprays are priced *per ounce* and ranged from 20 to 49¢, and often need additional treatments or products to remove a stain.

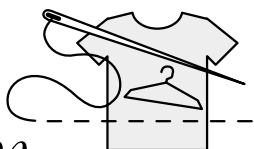
Just the basics are effective at removing many stains. The difference in price between these and higher priced pre-formulated products can be significant.

Consumer Caution: Often a company offers new or slightly reformulated products or size to attract consumers' interest and stimulate sales. This tactic leaves consumers with fewer choices and a more expensive product, often considerably more.

The Goal:

1. Limit the damage! Blot up excess spills to limit the size of the resulting stain.
2. Read the care label! Consider the recommended water temperature and whether to bleach or not as fact.
3. If in doubt, send it out! Good advice, but beware of the cost of dry cleaning versus replacing the garment.
4. Use the stain guide! Keep it handy by posting it in your laundry area.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Wash Wonders 101

Although laundering is often perceived to be simple, there are some “tricks of the trade” sure to improve results and add wear-life to any wardrobe. These tricks are worth learning, both from an economic and an esthetic standpoint.

Objectives:

- To operate laundry equipment.
- To learn how to use the many types of laundry products.
- To understand the information and symbols provided on garment care labels.
- To encourage all family members to participate in and share responsibility with the laundry.

Laundry Product Know-How – Handout

This material describes the type of products on the market today, their uses, and how to determine what's in laundry detergent to improve laundering results. Explain the three types of energy balance needed. Explain that lowering water temperature requires added agitation or additional detergent to stay in energy balance. When one goes up or down, the others need to respond.

Labels – What Do They Tell You? – Handout

Have examples of garment care labels for participants to refer to during presentation. Discuss what options they have for garments that have been damaged following care label instructions. For label information see the Soap and Detergent Association's Web site at: www.cleaning101.com Have examples of the care symbols on hand.

Decoding Your Washing Machine – Handout

Presents the “mechanics” of using the washing machine and variables that affect its performance. Also outlined are basic washing procedures for participants.

Road Map for Results – Handout

Provides tips and time savers for laundering.

Conserving Energy Use in the Laundry – Handout

Conservation tips for consumers.

Kids Can Too! Working Together – Handout

The motivation for sharing household tasks is to have more time together or to pursue other interests. Beginning with some basic laundry tasks, parents and children working together create a positive learning environment, and a way to share more than just a task together, but common goals.

Having children help with family chores may seem to some parents or caregivers as an impossible if not exhaustive delusion. But it doesn't have to be. Children learn life skills when they share in the responsibilities of the household – the challenge may be in



motivating them to accept this obligation. In the publication, *Managing Time, Work, and Family – Getting Children to Help, MF-2256*, nine steps are given to help develop a shared home-management system tailored to the needs of your family.

Explain to participants there are some basic steps. Ask them to help determine what these are; sorting, stain treatment, choosing which laundry products for specific loads of laundry, washing, drying, hanging and/or folding.

Basic Steps

1. Sort into Washer Loads:

- First sort by color (white, light, colorfast, medium, brights, darks).
- Sort by fabric type (loosely knitted or woven, sheers, delicate fabric or trims, towels, flannel, fuzzy).
- Sort by the amount and kind of soil (greasy or heavily soiled).
- Sort by size (mix large and small items). A regular capacity washer would be able to wash one to two twin or full-size sheets and pillowcases, with several smaller items.

2. Preparing the Clothes:

- Take time to inspect garments for stains, and pretreat them. Refer to *Spot Attack*.
- Close zippers and other closures.
- Empty pockets.
- Do mending as needed.

3. Select Laundry Products:

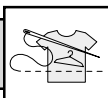
Explain the type of energy needed to insure good cleaning results. Refer to *Laundry Product Know How* for understanding the contribution these products have on results. Have examples for participants to look at.

4. Loading the Washer:

Measure and add detergent as washer is filling, then add the clothes. Remind everyone that bulk counts more than weight when determining the size of a wash load. Fill the tub loosely so clothing can move around freely in the water. Larger items should not be wound around the agitator, but placed on one side, balancing the load with other items or towels.

5. Setting the Controls:

Choice of water level, wash cycle, wash and rinse temperatures, agitation, and time, are all selected based on the type of clothing washed for each load. Refer participants to *Decoding Your Washing Machine*.



6. Washing Underway:

Check during washing to be sure there is enough water to allow the clothes to move around freely. If not, then reset the water level control to a higher setting and increase the amount of detergent and fabric softener. Always check clothing for stain removal prior to drying.

7. Dryer Details:

Stress the importance of moving wet garments as soon as possible to the dryer or line dry.

Tip: To keep the washing machine clean smelling try these tips:

- Run a cycle of hot water with one cup of bleach once a week. You may do this with or without clothing in the cycle.
- For stubborn chemical cleaning, run a cycle of hot water with one quart of white vinegar once a month. DO NOT add clothing to this cycle.
- During hot weather and high humidity, keep the lid open when the machine is not in use.

***Leader's Note: The following information is more technical in nature.
Use at your discretion.***

Comparing Labels for Detergents

Most laundry products vary the amount or combination of the following ingredients, all of which affect a products performance.

Surfactant

Surfactant is the main cleaning ingredient in detergents. It lowers the surface tension in water, loosens and removes oil from fabrics, and suspends soil to avoid redepositing on fabric. Types include:

Anionic – are the most widely used. Lifts dirt from clothes, removes fabric softener residues.

Nonionic – are generally only used in liquid detergents. They soften hard water and clean oil stains better.

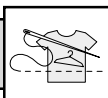
Builders

Builders perform several functions, but function to inactivate water minerals that interfere with wash results. Builders have alkalis present to improve cleaning and help suspend soil particles in the water. Types of builders are:

Sodium aluminosilicate – removes calcium minerals from hard water.

Sodium carbonate – removes calcium and magnesium from hard water.

Laurate/citrate – used in liquid detergents to isolate hardness minerals.



Other Detergent Ingredients:

Granular

- *Enzymes* are catalysts that help break down starch, fatty, oily, and protein soils.
- *Fabric whiteners* create a whitening or brightening effect when exposed to daylight.
- *Opacifiers* make product – opaque or reduce transparency.
- *Layered Aluminosilicates* provides fabric softening benefits.
- *Sodium Perborate* provides gentler bleaching action for fabrics. Activated bleach systems provide whitening at lower water temperatures.
- *Sodium Sulfate* is a processing aid used to impart physical characteristics (viscosity, solubility, stability and uniform density)
- *Stabilizing agents* are preservatives to protect product's integrity during shipping and storage.
- *Anti-redeposition agents* prevent soil from resettling during washing.
- *Corrosion inhibitors* protect the metal machine parts and finishes.
- *Suds control agents* moderates the amount of suds during cleaning.
- *Fragrances* mask base odors of the ingredients, soil, and package while providing special identity to product. Imparts pleasant odor to clothes.

Liquid

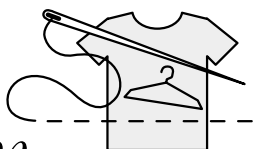
In addition to those granular ingredients listed above, liquid detergents have:

- *Buffering agents* – maintain the pH of the water during the wash process.
- *Hydrotropes and solvents* – prevent freezing, dissolves organic soils, and keeps product from separating into layers. These solvents are water soluble.
- *Quaternary compounds* – impart softness, reduce static, and kill or inhibit growth of microorganisms.

Other Resources

The K-State Research & Extension *4-H Clothing and Textiles Curriculum, Level II*, pages 127-136 includes activities and handouts to supplement this program information.

Before administering the lesson, ask participants to fill out the self-evaluation sheet. Following the lesson, ask them to fill out *My Plan for Improving My Skills*.



Laundry Product Know-How

There are three types of energy needed to insure good cleaning results:
chemical energy, provided by the detergent and other laundry aids;
thermal energy, provided by the temperature of the warm to hot water;
mechanical energy, provided by the agitation of the machine or by hand.

These factors interact with each other and need to be in proper balance, if the balance shifts – the others need to increase to insure good results.

To understand the laundry process, let's look at what factors are needed to remove an oily stain. Water alone is not sufficient to remove this stain because the oil repels the water droplets. The detergent supplies the *chemical energy* needed to break apart the oil and grease. The *thermal energy* of the water helps dissolve grease and oil inside the stain. Agitation supplies the *mechanical energy* to pull the stain away from the garment's surface. The detergent particles then hold the oil and grease suspended in water until it is carried away as the washing machine empties.

Liquid, Powders and Enzyme Detergents

Liquid detergents work at all water temperatures and are easy to use for pretreating stains. Liquids also have an ingredient that helps to soften hard water minerals.

Powder detergents work best at lifting clay and ground-in dirt in warm to hot water.

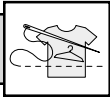
Enzyme detergents are most effective in removing protein and oil-based stains.

Presoaking stains 15 to 30 minutes in warm to hot water intensifies the cleaning action of the enzymes. Enzyme detergents must agitate 5 to 7 minutes before adding chlorine bleach to a wash load. Adding bleach too soon stops the enzyme "action" of the detergent and the effectiveness of the detergent.

Follow the directions given on the detergent package for the amount to use. Remember, that these recommendations are for an average size load, average soil level of clothes, and an average water hardness. If soil or load size increases, then add more detergent and agitation.

Bleach – Chlorine and Oxygen

Liquid chlorine bleach is usually 5.25 percent – new products now offer a 6 percent concentration. Liquid bleaches are used for whitening, deodorizing, and disinfecting for bleach-safe fabrics. Never use full strength chlorine bleach on any fabric, especially spandex, wool and silk. Overuse of chlorine bleach damages fabrics by shortening the life of the garments. Evidence of overuse includes rips, tears or even holes that appear mysteriously.



Caution: Chlorine bleach is poisonous and should never be mixed with ammonia, the fumes are toxic.

Gel chlorine bleaches offer splash-free pouring, making unintentional bleach splatters less likely. The thickened bleaches are more expensive than standard bleach – as much as 71 percent more per cup.

Concentrated chlorine bleaches offer a higher percentage of bleach than previous products. Theoretically, you do use less bleach per load, but you may pay more for the concentrated bleach you do use – as much as 96 percent more. These comparisons are made only with branded products, so comparisons would be more significant if compared to generic labels.

Oxygen bleaches are gentler and safer to use on all fabrics, come in both powder and liquid form, and work well as a presoak for stains. Look for the words “perborate” or “all fabric” on the label. Perborate-based products need extremely hot water for effective bleaching, and some fabrics should not be subjected to severe temperatures. Monopersulfate-based products can be effective at colder temperatures. Oxygen bleaches have a slower reaction time than chlorine bleach, so the warmer the water temperature, the better the product works.

Tip: In hard water, all bleach reacts to rust by turning white garments pink. To test, add 1 tbsp. chlorine bleach to 1 C. hot water. If the water turns red or brown (indicating excessive iron) use only oxygen bleaches in the laundry.

Pretreatment/Prewash Products

For use before laundering, prewash products are convenient, effective and very good at removing set-in, oily-type stains. Available in stick, gels, pumps, and aerosol sprays for pretreating stains.

Check aerosol spray labels for solvents – these products are flammable and require ventilation. Keep away from heat or ignition sources.

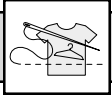
Odor Reducers

Baking Soda, calcium carbonate, and activated charcoal all effectively reduce odors. These products help reduce skunks, pet urine, cigarettes and smoke damage odors.

Disinfectants

Chlorine bleach is an effective disinfectant, but not all fabrics are safe. Refer to above information.

Quaternary compounds, also a disinfectant, are safe for fabrics, check for colorfastness prior to using on colors. Available at janitorial suppliers or some drug stores. Refer to *Reducing Bacteria in Clothing and Textiles, MF-1130*.



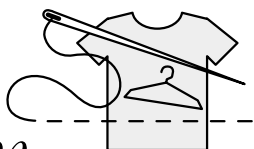
Fabric Softeners

For use in either the washer or dryer, fabric softeners:

- Reduce static cling, wrinkles, softens, and may slightly reduce soiling.
- Reduce drying time, makes fabrics softer and fluffier, and makes ironing easier.
- Reduce the absorbency of towels and diapers if excessive amounts are used.
- Fabric softeners may reduce the effectiveness of flame retardancy on children's sleepwear.
- Liquid fabric softeners are better at softening and should be diluted prior to adding to the final rinse. Never pour directly onto fabrics.
- Dryer sheets are better at treating static cling, and are added at the beginning of the drying cycle.

Dryer sheets may cause mysterious stains to appear on certain fabrics. To avoid this problem, (1) use a liquid fabric softener, (2) do not reuse fabric dryer sheets, (3) do not place in the dryer before clothes are added. If oily appearing splotches do appear, pretreat stain and rewash.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Kids Can Too! Working Together

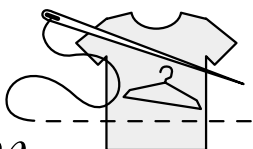
Having children help in laundry responsibilities can begin as soon as they can dress or undress themselves. Children enjoy learning about colors and textures, and a great tool for learning about color and texture of their clothing.

Tips for sharing laundry responsibilities among family members:

- Have several smaller laundry baskets labeled with pictures and words: whites, darks, brights, fuzzy lint-makers, permanent press, hot water, or special care.
- Each day as members change their clothes, empty pockets and close zippers then drop their laundry into the appropriate basket each day.
- Older children can pretreat stains – keeping a stain stick or gel nearby encourages them to use it.
- An added benefit to pretreating is that stains come out easier. This saves time and money that would have been spent for replacements and conserves resources.
- Folding and placing clothing in the laundry basket reduces the severity of wrinkles them after laundering and saves on ironing.
- Never place a wet garment in a laundry basket. Pretreat for any stains, then allow to air dry before placing in basket.
- Then when laundry needs to be done, the clothes are all ready to go, making the task much easier to complete.

Each day as clothing is removed, a decision about how to care for the garment is made. Whether it is thrown into the corner, the laundry basket, or into the washer, the care and maintenance a garment receives is visible in our everyday appearance. Daily care means clothing lasts longer looks new. Encourage everyone to participate in the daily routine of pretreating, sorting, and folding clothes into laundry baskets.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Labels — What Do They Tell You?

Everyone finds tags uncomfortable, scratchy, and generally just wants them removed. What is it about that little tag sewn into your clothes that makes you want to grab a pair of scissors? Before you grab the scissors, there is some important information on that very tag that could make your life easier!

The care label found in every garment is put there for a reason. It tells you some valuable information, but it doesn't come with a translation or reference guide. This handout will help you understand and use the information provided on the care label.

Each care label **must** have:

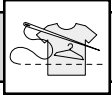
- One acceptable way to care for the product given, written or using symbols.
- Any necessary warnings about the cleaning method given— such as bleaching — that could harm the garment or other items cleaned with it.
- Generic fiber name (ex: cotton, spandex).
- The percentage of fiber by weight (95% cotton, 5% spandex).
- Identifies the manufacturer; name and RN or WPL number (RN 99999).
- Identifies the country of origin where processed or manufactured (Made in USA).
- If fur; whether it is dyed, colored or bleached, and the animal species.
- If wool; whether recycled or not (wool, recycled wool, virgin wool).
- Be easy to find, readable for the useful life of the product, and must be firmly attached on all garments sold in the United States.

Other information often included on the care label, but not required:

- size
- finishes applied (permanent press, stain repellent, anti-bacterial, etc.)
- color or lot number
- special features, design, or brand information

How will knowing the fiber content help to care for the garment?

Knowing what fiber(s) were used is your first clue for caring for the garment or how durable garments will be. Some fibers are more prone to shrinkage, and others require special care or handling. Knowing a fiber's characteristic protects your clothing investment and enables you to adjust the laundering process accordingly.



What do all those pictures with x's, dots and lines mean on the care label?

It's really simple and applies to washing, drying, and ironing clothing.

More dots = more heat, more lines = more care needed, X = do not use that procedure.

What if I followed the directions on the label and the product is damaged?

Contact the retailer where you purchased the garment to resolve the problem. If they are uncooperative, you can contact the manufacturer directly using the RN number.

What can I do with the RN number?

Find out the manufacturer of the garment should you need to return a garment to the manufacturer because of product defects. To find out the manufacturer from the RN number, contact your K-State Research and Extension specialist or agent.

If you want to contact the FTC (Federal Trade Commission) about the problem, refer to the sample complaint letter that follows. The FTC can't resolve the dispute, but they do track violations of the law and report frequent violators to the commission.

Does label information apply to just the trim used on apparel or to the whole garment?

Care instructions are required to provide instructions for the entire, complete and finished garment, as well as the component parts.

Is it safe to wash a garment labeled "dry clean only"?

A manufacturer is only required to provide one recommended cleaning process. Some manufacturers choose to use dry cleaning as the only method for cleaning. Consumers that choose to risk laundering instead of dry cleaning a "dry-clean only" labeled garment cannot hold the manufacturer liable if the garment is damaged or ruined. Consumers must follow care instructions to be able to resolve problems with manufacturers.

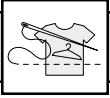
Can I cut out the care label?

Removing the care label limits any recourse consumers have in substantiating a complaint with a manufacturer. Garments taken to a dry cleaner or laundry service without a care label, place the burden of recourse on the consumer.

How do I check to see if a new garment is colorfast?

Wash it separately the first time it's laundered. The second time it's laundered, try the following either of these two methods to determine whether it's safe to wash with other garments.

Locate a small piece of white fabric, and cut it into two pieces. During the rinse cycle, check the rinse water for dye by dropping in *one* of the white swatches with the new garment. After the final rinse, check the fabric swatch you tossed into the rinse for whiteness compared with the other sample. If there is no difference in color, wash as usual. Or, apply a little water or detergent along an inside seam and blot with a white paper towel. If color transfers to the paper towel wash the garment separately.



Sample Complaint Letter

Your name, address, city, state and zip code

Date

Retailer or manufacturer's name, company contact, address, city, state and zip code

Dear _____ :

On (date), I purchased (describe the garment) from (retailer's name and address). The care label indicated that (list information from the labels and tags). Unfortunately, my garment has been damaged because (explain the problem).

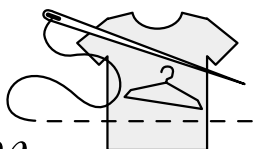
Therefore, to resolve the problem, I would like you to (state the specific action you want). Enclosed are copies (copies, NOT originals) of my records (receipts, canceled checks, and other documents).

I look forward to your reply and a resolution to my problem within (set a time limit). Please contact me at the above address or by phone (home or office numbers with area codes).

Sincerely,
(your name)

Courtesy of the FTC Web site, found at: www.ftc.gov

*Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension*



Decoding Your Washing Machine

As you learned in *Laundry Product Know-How*, three types of energy are necessary to produce good cleaning results.

- Thermal energy is supplied by the water temperature of the wash water.
Hot-water wash (120–140°F)
Warm-water wash (85–105°F)
Cold-water wash (65–75°F)
- Chemical energy can be boosted by adding additional products. Bleach (chlorine or oxygen), pretreating stains, presoaking, even using more detergent or an enzyme-based product improves cleaning results. These products can compensate for lower water temperature or less mechanical action.
- Mechanical energy is supplied by the agitation of the washing machine. Increasing the amount of time a load is agitated compensates for cooler water temperatures.

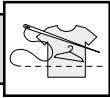
Water Temperature

Cold water is often recommended as a wash temperature for very lightly soiled or brightly colored garments. Using cold water saves energy, but reduces the cleaning effect of detergents. To keep a cold water wash in energy balance, additional steps are needed:

- use a liquid detergent
- use an oxygen or chlorine bleach as recommended by the care label
- presoak heavily stained or soiled garments
- pretreat all stains and spots
- increase the duration of the wash cycle

Warm water is most often recommended for cleaning. Using warm water saves energy (instead of using hot water), increases the cleaning effect of the detergent, and minimizes abrasion to the fabric (for normal loads, no additional bleach, detergent, or agitation is needed). Safe for synthetic fabrics, knits, and wrinkle-free or permanent-press finishes.

Hot water is recommended to disinfect bacteria from garments and to remove some stains, or increases the strength of bleach. Safe for white cottons, underclothes, and pesticide-soiled garments.



Decoding Your Washing Machine

Handout D

** Remember to keep each laundry load in energy balance – if changing one of the energy components, you need to increase the action of the other two.*

Water Heater Check

Check the hot, warm and cold water temperature coming into your washing machine. Use a thermometer to determine whether adjustment is needed to the water heater. Hold the thermometer in the flow of water coming into the machine. Refer to the temperature chart on page one of this handout. Seasonal adjustments may be needed during cold weather.

Caution: Setting the water heater at 110–120°, you will need to use the hot water setting on the washing machine just to get the temperature within the warm wash temperature range.

Oh No! Overload!

The washer should be loosely loaded with dry unfolded garments. This is NOT the time to pack them in! Clothes must circulate freely to get clean. Vary the size of the items being washed; for example, wash two or three sheets with several smaller items to complete the load.

A good rule of thumb for judging the size for top-loading machines – loosely load to the top row of holes in a perforated wash basket or weigh each load using a laundry basket and a set of bathroom scales. Check the user's manual for weight load and water level recommendations.

Cycles, Levels, Rinses and Such

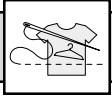
Cycles for Permanent Press, Delicates, and Normal

Some washers have additional cycles for specific types of finishes applied to garments. These special finishes make them easier to care for, (i.e., permanent press, water resistant, wrinkle free), and these special wash cycles help preserve the finishes for permanent-press or wrinkle-free garments. A cool down rinse minimizes wrinkling during the spin cycle.

Delicate cycles are needed for sheer fabrics, loosely knit garments, washable woolens and anything labeled hand wash. The gentler wash procedures of the delicate cycle reduce the abrasion these items receive from rubbing each other.

Tip: Use a medium water level setting for the wash and rinse, even for small or very small loads.

Doing so minimizes the wrinkling and pulling on seams for items with delicate construction, washable woolens, permanent press or loosely-knitted garments.



Water Level

Varying the water level according to the wash load conserves water, detergent, and energy. Judge the water level for each load by placing the unfolded garments in the washer basket and add water to the first level. To insure good cleaning results, remember clothes need to circulate freely. Adjust the water level to the next level as needed, then let the machine fill. Keep increasing the water level to allow clothes to circulate. Remember to adjust the amount of detergent, fabric softener, and wash time based on the adjusted level. Using too little water results in poor washing action and causes garments to show extra wear.

Rinses

Cold water rinses save energy and are just as effective as warm water rinses, and can be used for every load.

Wash Duration

Wash time varies by the type of fabrics being washed and how heavily soiled they are. Longer agitation is needed for heavily-soiled fabrics and should be determined by the “dirtiest” garment(s) in each load. Be sure to increase the amount of detergent for heavily-soiled loads.



Four Basic Washing Procedures:

Regular

Sturdy cotton/linens, no permanent press, delicates or woolens

Wash Setting: Regular cycle

Water Temp: Whites or heavy soil – Hot
Normal soiled colored garments – Warm
Bright or dark colors/light soil – Cold

Permanent Press and No-Iron Items

Oily stains need immediate attention to prevent permanent damage.

Wash Setting: Use permanent press cycle.

Water level: Medium or higher to avoid wrinkling.

Water Temp: Whites or heavy soil – Hot
Normal soiled colored garments – Warm
Cold water rinses for all loads

Delicates

Lingerie, washable silks, loosely knit, sheer fabrics, lace trimmed, embroidered, and foundation garments. Never use chlorine bleach on garments with spandex. Use a mesh bag for small items or hosiery.

Wash Setting: Use delicate cycle

Water level: Medium or higher to avoid excessive abrasion to delicates

Water Temp: Use warm or cold to avoid fading bright colors

Wool

Only wools labeled machine-washable or hand-washable on care label. Never use chlorine bleach. Do not place in clothes dryer unless recommended by care label.

Wash Setting: Use delicate cycle

Water level: Medium or higher to minimize shrinking and pilling

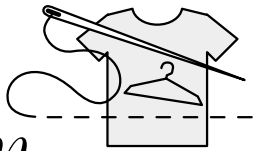
Water Temp: Cold water wash and rinse

Prepared by:

Marla Day, Extension Associate

Apparel, Textiles, and Interior Design

Kansas State Research and Extension



Road Map For Results

Sorting Secrets

Color – Separate whites from colors and darks from brights. Using different wash temperatures for these color loads, reduces the chance of color loss or transfer to a lighter color fabric.

Fabric – Sort according to fabric type and texture.

Surface – Separate lint givers from lint takers.

Construction – Loosely knit or woven fabrics, lace trim or delicates need special care cycles.

Dirt – Separate according to the amount of soil, light soil vs. heavily soiled.

Pesticides – Never wash pesticide-soiled garments with the regular wash.

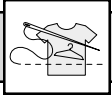
Prep Time

Insure good laundry results by:

1. Closing zippers, hooks and eyes, and hook-and-loop tape to prevent snagging. Dangling drawstrings and ribbons should be loosely tied to avoid entangling with other garments.
2. Empty the pockets and brush away lint or dirt. Melted gum, candy or crayon creates extra work!
3. Remove unwashable items, such as belts, trim, and jewelry.
4. Repair prior to laundering. Rips and tears tend to grow if left untreated during laundering.
5. Treating spots, stains, and heavily-soiled areas with pretreatment stain products.
6. Turning permanent-press garments inside out helps prevent pilling, a common problem for permanent-press garments.
7. Place hosiery, delicate, or small items in a mesh laundry bag.

Ring around the collar!

Rub heavily-soiled collars and cuffs with a liquid detergent or pretreatment product before laundering. Other stains need special care too, just watch out – if you use a product that happens to soften your nail polish (petroleum distillates) you may end up with polish on the clothing you are treating.



Check the water.

Hard water is present if you notice these effects in your home:

- A ring around the bathtub.
- It is difficult to get shampoo or soaps to lather easily.
- A white residue forms around faucets and drains.
- Fabrics feel stiff, not fluffy.

If you think you have hard-water problems, add more detergent or use a water softener in the wash water.

Choose the right wash temperature.

Sort laundry by color and water temperature. Washing garments in water too hot or cold produces wrinkles, dye loss, shrinkage, even dye transfer.

Don't overfill the washing machine.

Detergents remove dirt and the minerals in hard water by (1) holding them in suspension, (2) preventing them from being redeposited on the fabric; and (3) carrying them away in the water. When the washer is overfilled, this process is hindered and results in clothes that are not clean and overly wrinkled.

Reduce bacteria in the laundry.

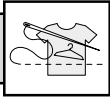
- Separate laundry items that may have more bacteria on them such as dishrags, kitchen towels, or underwear.
- Wash hands after placing dirty laundry in the washing machine and when moving the wet laundry to the dryer.
- Wash and dry garments in the hottest temperature safe for the fabrics.
- Use a disinfectant such as chlorine bleach or quaternary compounds.
- At public laundry facilities, when laundering infants' clothing, or following any contagious illness in the family.

The 3 P's of Stain Removal

- Promptness
- Patience
- Perseverance

Avoid extra work!

Remove the clothes from the washing machine as soon as the wash cycle is complete – you avoid extra wrinkles. Should you discover wrinkles later – rewashing them solves the wrinkle problem, but causes an extra expense. Discovering them days after – they may have mildewed, causing you to purchase new garments, and the wash basket will likely rust!



What's Average?

Laundry products always give a recommended amount to use based on an average load, but how does this translate to your family? Refer to the instructions on the product label.

Average conditions list these criteria:

- A 5 to 7 pound load of clothes
 - ✓ Determine the weight of the load by using a bathroom scale. Weigh an empty laundry basket, then place a load of clothes in the basket and re-weigh. The difference between the two is the weight of the load. Doing this activity will determine what is average for your washing machine.
- Moderate Soil
 - ✓ Soil level is determined by how soiled the dirtiest garment is for each load.
- Moderately hard water
 - ✓ Refer to page 2 of this handout for indicators of water hardness.
- Average water volume
 - ✓ 17 gallons for top loading washers, or four to eight gallons in front loading washers.

Adjust the amount of laundry product for:

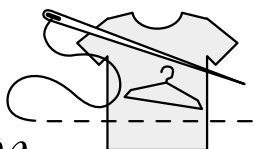
- Larger loads, heavier soil, hard water, and large capacity washers. Use *slightly less* for soft water or lightly-soiled loads.

Prepared by:

Marla Day, Extension Associate

Apparel, Textiles, and Interior Design

Kansas State Research and Extension



Conserving Energy Use In The Laundry

Clothes washer

In most American homes, a considerable amount of hot water is used for washing clothes. Consider a machine that has the ability to control water level and an automatic cold-rinse cycle when purchasing a washing machine.

When you use your washer, follow these suggestions to save energy:

- Pre-soak heavily-soiled clothes.
- Fill the washer according to the load level, such as low, normal, high, or extra high.
- Follow the manufacturer's instructions for adding detergent.
- Use as low a water temperature for the washing cycle as will give satisfactory cleaning.
- Remember that cold and medium water temperatures may vary with the season.
- Always use a cold rinse cycle.
- Use your washer during "off-peak" hours or on weekends.
- Follow maintenance instructions found in the owner's manual.

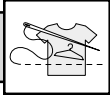
Clothes dryer

A dryer evaporates water from clothes and minimizes wrinkling by tumbling the clothes. Water evaporation requires heat – large amounts of it. Heating costs money, but there are ways to use the dryer to make it more economical to operate.

Using a dryer with a variety of cycle settings allows you to set a temperature suitable for the fabrics being dried.

Follow these economy suggestions:

- Extract as much water as possible from clothes before putting them in the dryer.
- Sort dryer loads and set temperature by fabric type.
- Do not overload the dryer.
- When possible, run consecutive loads to take advantage of dryer warmth.
- Try reducing drying cycle time, hanging garments while still slightly damp.
- Clean the lint filter after each load.
- Check and clean the outside vent monthly.
- Dry clothes outside on a clothesline when possible.

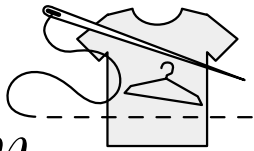


Conserving Energy Use in the Laundry Handout F

Vacuum the lint from the motor housing three or four times a year. Follow the manufacturer's maintenance instructions listed in the owner's manual.

Permanent-press fabrics absorb less water than conventional fabrics and therefore require less drying time. By using permanent-press clothing and bed linens, you will reduce drying and ironing time while saving energy too.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Drying Details

Objectives:

- To operate laundry equipment efficiently.
- To learn about and use products designed for use in the clothes dryer.
- To understand the information and symbols provided on garment care labels that relate to drying clothes.

Handouts For the Drying Details Lesson:

- Hang-ups and Other Options
- Sizing Up the Cycle Code

Discussion Points

A clothes dryer is the second largest consumer of energy in the home; therefore it is extremely important to economize. Ideas, tips and alternatives are suggested in the handouts to guide participants in their effort to save resources.

Electricity Versus Gas

Fuel costs are a significant factor when determining a dryer's energy costs. Comparing utility rates for the two fuels, gas is generally cheaper than electricity. With the recent fuel crisis, the outcome for consumers will find them paying more for both. That is why everyone should use these resources wisely, saving money and conserving fossil fuels.

Tips For Better Efficiency:

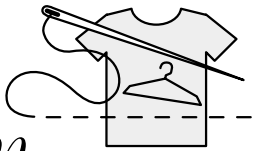
- Run only full loads, as small loads are less economical. However, don't overfill the dryer either, air needs to circulate around the clothes.
- Dry heavy clothes separately from lighter- weight items. If combining them, remove light weight items as they dry.
- Dry two or more loads in a row, making use of heat already in the dryer (residual heat).
- Don't overdry clothes. If your machine has a moisture sensor, use it. If it has a timer, consider shortening the drying time.
- Use the cool-down cycle if you have one, to allow clothes to finish drying with the residual heat.
- Clean the filter before and for really fluffy stuff, during every load.



- When dryer is not running, check the outside dryer vent to make sure it closes tightly.
- Locate your dryer in a heated area of the home. Putting it in a cold or damp basement causes the dryer to work harder.

Drying clothes is a process of evaporation – a clothes dryer speeds up the process by controlling three variables; the input of heat, the flow of air, and a control system. Control systems can be as simple as a timer (where the user estimates the time to dry a given load), a temperature sensor (which estimates dryness), or a moisture sensor (these directly measure dryness). A moisture sensor reduces energy use by about 15 percent (worth about \$12/yr). Temperature sensors average a 10 percent savings over timers. Future dryers will use microwave technology to increase efficiency. A prototype under development will use about 12 percent less energy than present systems.

Before administering the lesson, ask participants to fill out the self-evaluation sheet. Following the lesson, ask them to fill out *My Plan for Improving My Skills*.



Hang Ups And Other Options

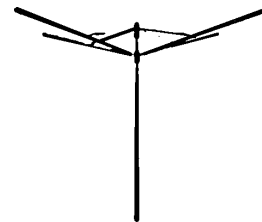
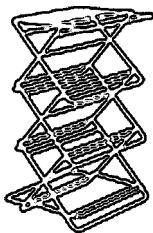
A clothes dryer is the second largest energy consuming device in most homes. To conserve energy, try these alternatives:

Line Drying

Drying is simply a naturally occurring evaporative process. Line drying your laundry conserves energy, utilizing heat from the sun and wind. Weather conditions affect how fast or slow clothes hung on the line will dry. On a warm, dry day, clothes dry faster than the same clothes hung out on a damp, hot day. The process is faster on windy days as the air moves over and through the fabric.

Leaving clothes on the line after they are dry, increases the chance colors will fade and cause some whites to yellow. Yellowing is due to the fluorescent brighteners in detergent or fabric finishes. Fading is due to the sun's intensity. Minimize fading and yellowing by placing the clothesline in a shady location.

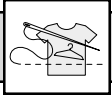
There are new products available to make line drying even easier and use little space. No longer is there only the standard clothesline, new products roll, fold-up, or store conveniently away. What options are available if you could choose to dry your clothes another way? **The pictures below are just a sample of what is available.**



Best of both worlds

How can you get the benefit of using the clothes dryer and line drying and still save money? Try this energy saving tip:

- To begin, remove clothes from the washer as soon as possible to reduce wrinkling.
- Shake them out and then place in the dryer for just a few minutes, usually 5 to 7 minutes.
- Then hang them up, buttoning collars or other closures.
- Let hang dry, and you will have little, if any ironing to do.



Both you and your laundry will have the benefit of both worlds, the softness that machine drying offers, the clean, fresh smell that line drying provides, and some extra money in your pocket from using less electricity or gas.

Hanger Helpers and Space Savers

Hangers

Plastic hangers are recommended over metal hangers when hanging damp laundry. Metal hangers may leave rust spots on the clothing.

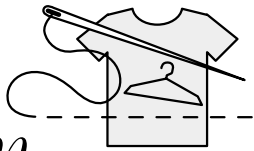
Rolling Racks

Increase the amount of hanging space for hanging damp laundry by adding an inexpensive rolling rack. Racks are convenient for hanging damp laundry that can then be tucked away.

Over-The-Door Hooks

If you are short on hanging space in the laundry room, consider adding a few over the door hooks. These hooks are inexpensive and useful when drying garments on hangers.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Sizing Up The Cycle Code

Garments that are washed together are generally safe to dry together. Read and follow care labels for correct drying temperatures. For more information about care labels, refer to the handout *Labels – What Do They Tell You?*

Overdrying wastes energy and money. Drying time is based on the size of the load, the type of fabrics, and how damp clothes are. Clothes will feel stiff and appear more wrinkled when dried to a “bone-dry” state – remove while still slightly damp.

Overloading the dryer causes lengthy and uneven drying and encourages extra wrinkles. Usually, one washer load is one dryer load.

Time Control

Time is controlled by either setting the minutes or using “automatic dry” cycle. Monitor the drying process, being careful not to overdry clothing. Overdrying encourages shrinkage, pilling, and wrinkling. Thick and bulky items take longer to dry than thinner items – so dry heavier items separately. Check all loads frequently and remove garments as they dry.

Heat Setting

Always refer to the care label sewn into the garment for correct drying temperatures. The amount of heat or temperature will be stated as no heat, low, medium, high, or any heat. If the care label uses symbols, the more dots = more heat.

Dryer Cycles

Most dryers have regular/normal, delicate/gentle and permanent-press cycles. Select the cycle based on care label information. For loads washed using a permanent-press cycle, choose a permanent-press cycle for the dryer.

Permanent-press cycles use a specific amount of heat followed by a cooling down cycle to relax wrinkles. Some models continue to tumble permanent-press clothes, without heat, to minimize wrinkles. For dryers without a permanent-press cycle, lowering or shutting off the heat manually for the last 10 minutes of drying time produces similar results. Items with a permanent-press finish may include work or dress shirts, blouses, slacks, and some jeans. Look at the care label for directions or symbols, and use the handout *Labels – What Do They Tell You?* as a guide.



Regular cycles – This cycle is for most everything machine dryable, except permanent press. These are items such as sheets, towels, underwear, T-shirts and jeans.

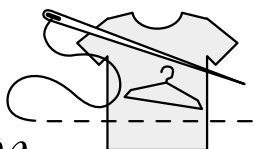
Delicate/Gentle cycles – Tumble items with little or no heat and can be used for garment care, to fluff pillows, napped fabrics (like corduroy), and any heat sensitive fabric.

Synthetic and blended fabrics perform better when washed and dried in slightly *smaller* loads. These fabrics need to tumble freely in the machines to smooth wrinkles. Remove as soon as the dryer cycle is completed.

Tips:

- Be sure to check any garments you treated for stains before placing them in the dryer. If stains are still present, they must be retreated now. Heat from the dryer will permanently set them or make stains very difficult to remove.
- Before placing damp items in the dryer, shake to keep them from clumping. Shaking reduces wrinkles and helps the garments dry faster.
- Clean the lint filter before and after drying each load of clothes. A dirty filter slows the laundry process, increases drying time, and wastes electricity or gas.
- Remember to dry “lint-givers” in separate loads from “lint receivers.”
- Never dry items containing foam rubber on a heat setting, fire may result. These items will be better off drying on the clothesline.
- Never place any item in the washer or dryer that has *any trace* of a flammable liquid or solid still present. Cleaning products used in stain removal, or products such as gasoline, kerosene, turpentine, or wax removers remaining on garments, should never be laundered until vapors or traces of the flammable material have dissipated.
- Young children should never operate or play inside, with or around laundry equipment and products. Always supervise children when they help with laundry responsibilities.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Storage Solutions

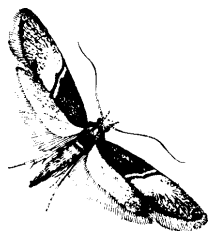
Storage in the home is an important component in the management of apparel. It is however, often overlooked until you are faced with a crisis.

Handouts for the Storage Lesson are:

- Beetles, Moths, and Silverfish, OH MY!
- Controlling Apparel Storage

The most common fabric pest is the clothes moth, but insects can damage apparel. The following descriptions explain the behavioral characteristics, their color, and reproduction capabilities.

Clothes Moths

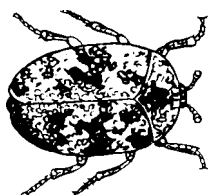


Two species: Webbing Clothes Moth and the Casement Clothes Moth look alike. Adult moths are yellowish or buff, with a wing span of about a half inch. Fully grown larvae are white and have tiny brownish-black heads, and are about a half inch long.

Female moths lay soft white eggs in concealed places such as, clothing, household furniture, and cracks in the floor – 100 to 300 eggs are laid that hatch in four to eight days in the summer months. Hatching takes longer in cool weather. Moths produce four generations per year.

As soon as eggs hatch, they begin feeding on protein fibers like; wool, mohair, hair, bristles, fur, feathers, and down. They enjoy protein fibers, but will feed on anything – even curtains or mattresses. Moths are usually found on their food source (stains on garments). They can live behind baseboards, moldings, cracks in the floor or corners, or in air ducts. Closets, shelves, and dresser drawers are also feeding grounds. Adult moths prefer darkness and do not flit around light sources. When disturbed, they run or fly to hide themselves.

Carpet Beetles



Four species: Black Carpet beetle, Carpet beetle, Furniture Carpet beetle, and the Varied Carpet beetle.

Black Carpet beetles have solid black bodies, brownish legs, and are 3/36" to 1/8" long. The larvae are yellowish, golden, or dark brown and the bodies are tapered from the head to the posterior.



The other three species have molted colorings of white, brown, yellow, or black, are 1/8" long. The larvae are elongated and oval; with brownish or black bristles, and grow to 1/4" long.

Female Carpet beetles lay eggs similar to those laid by clothes moths. Laying only 100 eggs that hatch in eight to 15 days in summer, longer in winter. Only one generation is produced per year.

Adult Carpet beetles fly readily, are attracted to sunlight, and may be found on window sills.

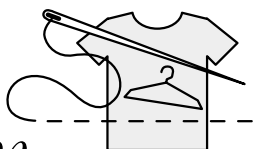
Both moths and beetles may be carried into the home on clothing, furniture, under canned food labels, or other materials.

Other pests such as silverfish, crickets, beetles, and roaches eat fabrics because of the food source provided by food-based stains or protein fibers.

Pest Damage Can Be Avoided By:

- cleaning storage areas
- vacuuming baseboards, cracks and flooring each season
- using pesticides responsibly (follow label directions)

Before administering the lesson, ask participants to fill out the self-evaluation sheet. Following the lesson, ask them to fill out *My Plan for Improving My Skills*.



Beetles, Moths, and Silverfish, OH MY!

Prevention, detection and elimination! No we are not talking about the latest Terminator movie, but about a common problem every household encounters, BUGS! In particular, bugs that like to eat clothing.

Common insect pests are the clothes moth, carpet beetle, silverfish, cockroach, even crickets. These insects don't really want to eat the fabric, they are eating where "food" has been left from spills, stains, perspiration, or starched fabrics. The fabric is damaged because the food is attached to it. The damage is done as the insects cut or eat away at the food source, leaving small holes in the clothing. These holes may not be noticeable until clothes are washed, making the damage evident.

How to Avoid a Pest-y Situation

So how do you avoid damage to your clothing? Make sure that everything you put away has been washed or dry cleaned and any stains removed.

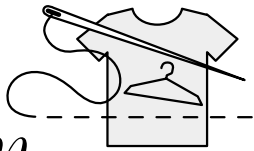
What do you do if you find the pests listed above in your home? Wherever the location of the infestation, begin emptying that area and launder all apparel items. It is necessary to clean every crack and corner of the area. Use a vacuum cleaner to clean baseboards, ceilings, and shelving. Discard the vacuum cleaner bag to prevent re-infestation. Spray the area with an appropriate insecticide available at the local market. Follow instructions carefully. Washing shelves with detergent, bleach, ammonia, or disinfectants will not have any effect on insect pests. Closely monitor other areas of the home for evidence of pests.

Are mothballs a good way to deter moths? They are an effective but smelly method and require an airtight environment. Most closets and cedar chests cannot provide airtight storage space. Moth balls are toxic, and should never be handled by or located within the reach of children and pets. Mothballs should never touch the fabrics directly, but suspended above in a mesh bag. The scent from moth balls will not kill insects, but they do find it offensive and usually stay away. Unfortunately the scent is offensive to us as well, and is very difficult, if not impossible to remove the smell from clothing.

What is the best way to store apparel in the home and away from pests? Make sure the apparel is clean, the closet or storage area is clean and well-ventilated, and checked frequently pests.

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension

For additional information on household pests, please see K-State Research and Extension publication, MF-1096, Household Insect Control



Controlling Apparel Storage

Closet Bulge Blues

If bulging at the seams describes your current closet situation, then this information is for you. Apparel is made from fabric that needs special care and attention to keep it looking its best.

Before stress becomes distress, let's analyze the care process from a different point of view. The conditions our apparel are subjected to begins in the closet. Left to hang on thin, pointy wires, we force them to endure more stress and strain when worn. Passing through the laundering process they are crammed, dunked, agitated, spun, immersed, spun again and then heated and tossed before hopefully arriving back to the closet, again strung by thin pointy wires. Surviving in cramped quarters, our clothes are jammed together. Gravity then places clothing under more stress, pulling and tugging on the hanger. Subjected to this grueling process, it is a wonder our apparel lasts as long as it does.

Rave Reviews

As the seasons change so does the selection of daily apparel. Even if you're crazy about the wool sweater – you just might fry during the long hot summer. And you may not need those shorts in January, so what's a person to do?

Begin by sorting out those seasonal items to store away, then sort again. Look for any items that have stains, need mending or don't fit anymore, and those that must be replaced. Then try to rewash the stained apparel, set a realistic time schedule for completing the mending (and try to meet that deadline), sell or give away those items that don't fit, and update your wardrobe plan with the replacement items ready the next time you shop.

Out-of Sight, Out-of-mind?

Apparel storage falls within three categories: short term (day to day), seasonal, and long term. Each with differing needs to provide a safe environment for apparel. How you go about storing the seasonal wardrobe is based on the amount of space you have available. Closet storage is primarily designed for hanging items with some shelves, and drawer space for current season needs. If floor space is available, adding rolling racks, boxes or cartons may be a solution for crowded closets and seasonal storage.

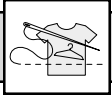


Hanging Storage	Pros	Cons
Wire hangers	easily available, affordable, lightweight	rust, snags, no support for fabrics, distort shoulders on knitted garments, tangle easily
Plastic tubular hangers	some support for lightweight garments, affordable	easily break, may still distort shoulders on knitted shirts
Padded, shaped, and Suit hangers	good support for weight of most garments, sheer fabrics, dresses, suits, tailored garments	more expensive
Skirt, pant or clip style hangers	easy to use, allow pants to hang from hem keeping crease	metal clips may rust, clips mar fabric surface, skirts develop

The Good, the Bad, and the Ugly on Storage

Short-term storage is for apparel used on a daily basis. To extend the wear of these garments, follow these tips:

- Let clothing air overnight before returning to the closet, drawer, or laundry basket. Airing permits moisture to evaporate and wear wrinkles to relax. Never store damp clothing.
- Do not store clothing near a source of heat – even lightbulbs – or in sunlight.
- Rotate wearing favorite items, especially shoes. Shoes trap moisture inside – airing helps avoid stinky feet.
- Don't store jewelry in pockets or on jacket lapels. Secure or close fasteners on tops, jackets, and bottoms.
- Check for spots and stains. Pretreat these items immediately.
- Allow room between garments that hang. Ideally garments should hang without being squashed by other garments. The spacing helps when removing the hanger from the rod, keeps closures from snagging other garments prevents wrinkles – freeing you from the iron.
- Closets and drawers should be thoroughly cleaned once a year. Refer to *Beetles, Moths and Silverfish OH MY!*



Flat Storage

Usually used for items that are delicate or knit. The amount of flat storage is usually limited. Consider adding containers to store sweaters and other seasonal items under the bed, or use trunks or suitcases that might suit the decor of the room. Suggestions for flat storage are:

- Fold garments along construction lines or wearing lines (waist, knees, elbows). Don't fold it the same way each time. Ex: when folding a sweater, fold arms to front side. Next time fold them to the back.
- Roll garments. Rolling uses less space and you can store more items with less wrinkles.
- Protect apparel from wood-lined drawers and shelves – the wood will stain fabric.
- Sachets and herbs provide a nice smell, but they do not prevent pest damage.

Seasonal Storage

After doing seasonal sorting and preparations, consider these tips to insure good care:

- Garments with starch, sizing, or fabric softeners will attract pests. Any items washed with chlorine bleach should be rewashed to insure all bleach has been removed.
- Avoid basement and attics. These areas are prone to moisture damage and extreme heat fluctuations, both conditions are potentially damaging to textiles.
- Clean storage area prior to storage. Vacuum baseboards, corners, and crevices.
- Never store damp or wet clothing.
- Avoid plastic bags and containers.
- Don't overpack or stuff apparel into containers.
- Wool, wool blends and fur apparel are susceptible to pest damage. Be sure these items are cleaned before storing.

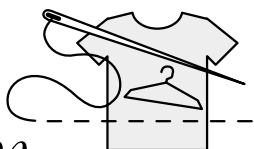
Long-Term Storage

These items may be special garments worn at certain occasions, or have sentimental value. These items need great care, refer to *Life's Tapestries: Securing the Past for the Future Lesson Series*.

Life's Tapestries: Securing the Past for the Future

To obtain a copy of this lesson series, write to: Marla Day, Extension Associate, Textiles, 236B Justin Hall, Manhattan, KS 66506

Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Make A-Mends — Minor Repairs

Objectives:

- Simple maintenance extends the life of their wardrobe purchases.
- Execute minor repair tasks.
- Repairing garments conserves resources.

Caring for apparel purchases goes beyond the laundry cycle. Everyone comes face-to-face with missing buttons at some point. Knowing what to do instills confidence when caring for purchases, applies to people of any age, and develops responsible habits for a lifetime.

Demonstrating how to sew on buttons, replace hems and popped seams provides an interactive learning model for the participants to both learn by and demonstrate their new skills. Repairs mean a better overall appearance, fewer clothing replacements and saves money for other needs.

Buttons

The best time to sew loose or missing buttons is as soon as possible. Keeping the mending done helps avoid nagging feelings about what needs to be done, and prevents loose buttons from becoming permanently lost. Refer to the handout *Sewing On a Button* for instructions and supply lists. The procedures outlined take participants through threading the needle, placing the button, and sewing on the button.

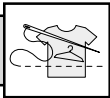
Hems

Learning a few common hand stitches provides participants with the ability to make repairs without needing to purchase a sewing machine. Common stitches they should learn are the hemming stitch and catch stitch. Refer to the handout *Hemmed In*, for illustrations and method.

Hemming stitch is typically used on hems with a seam binding.

Catch stitch provides a very secure hem for any garment.

Sagging hems are easily tackled to keep garments looking great. Shortening or lengthening a hem will extend the life of a garment by following the steps given in the handout *Hemmed In*.



Check to see if the original hem may have left a line or crease along the folded edge. If it has, try using a spot remover along the crease or sponge with a 50/50 solution of white vinegar and water and then launder. If these methods fail to remove the line, the fabric probably has a durable press finish on it. To lessen the effect of the line, try top stitching by sewing machine, or conceal the line with a row of decorative stitching, trim, ribbon, or braid.

Seams

Seams often pop apart when placed under stress or strain. Techniques are given for using hand or machine stitching. To close a popped seam, follow the guidelines given in the *Seam Pop* handout and refer to the handout *Hemmed In*, for hand-stitching techniques. Refer to the 4-H Clothing and Textile curriculum regarding sewing machine parts and identification lessons for participants with sewing machines available to them.

Discussion and Demonstration Points:

Discuss the different types of buttons and their uses. Shirt buttons are typically 4-hole, jacket buttons usually have a shank, jeans have a heavy-duty metal button and shank.

What is a shank, and why is it needed? Show examples of each type or ask participants to determine what type of button are on the garments they are wearing.

Have available sample buttons and fabric scraps to practice on and support the practical application of what they are learning. If possible, have them bring items from home needing a button replaced, have a loose hem, or a broken seam.

Material and Equipment Sources:

Contact local organizations about donating items for the sewing kit. Many items are inexpensive to purchase. Interested organizations might include local quilt and sewing guilds, fabric retailers, and service organizations at schools, churches, or men's and women's service leagues.

Personalizing a storage container is a fun way to introduce and encourage participants to begin minor sewing repairs.



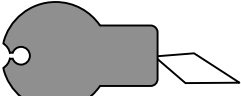
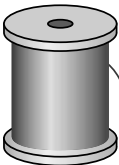

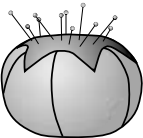

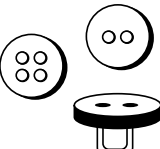


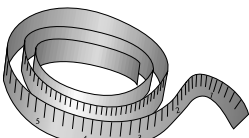

Other Resources:

4-H Clothing and Textile Curriculum, K-State Research and Extension
Meridian Education Corporation, Family and Consumer Sciences, *Basic Hand Sewing Video or Clothing Care: Laundry & Stain Removal* (18 Min) has a segment on minor repairs.
K-State Research & Extension Video Catalog, *Sewing Notions Know-How* V423

Prepared by:

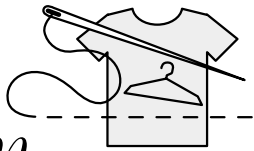
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension

Basic Sewing Kit

 Scissors	 Hand sewing needles (sharps)	 Needle threader	 Thread-general purpose-spool of black, white, khaki, navy, grey
 Straight pins	 Pin cushion or small box for storing pins	 Seam ripper	 Buttons, various sizes and types
 Small ruler or sewing gauge	 Pencil and chalk	 Tape measure	 Box for storing these items

Examples of types of boxes or storage containers:

- School box
- Old lunch box
- Shoe box
- Tool or tackle boxes
- Small drawer storage boxes



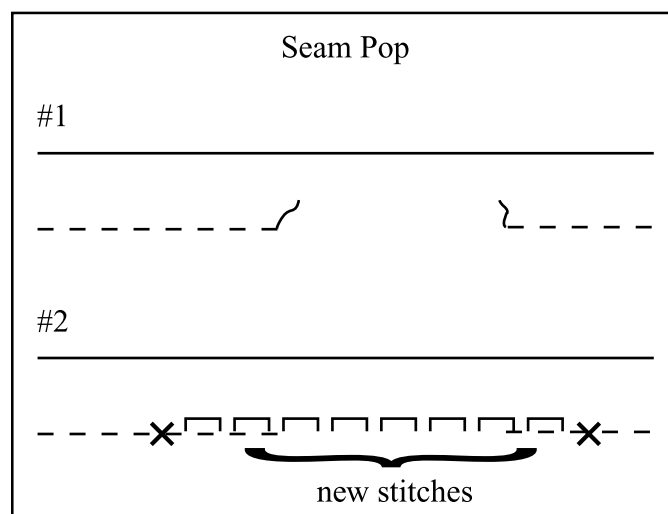
Seam Pop

Refer to:

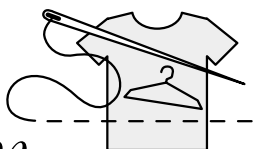
- *Hemmed In* for hand stitches
- *Sewing on a Button* for threading/knotting instructions
- Needle and thread from sewing kit

Popped seams are the result of a seam under stress. To repair these seamlines, a very strong hand stitch is recommended called the back-stitch. Back-stitch is the strongest of the hand stitches, and works well in hard to reach areas of a garment, or for popped seams in knitted fabrics. In addition to using this stitch to simulate machine-top stitching, the stitch securely holds seams in hard to reach areas of any garment or along stressed seamlines.

To resew a seam that has popped, turn the garment inside-out, and locate the seam needing repair. Thread the needle and knot the thread according to the handout *Sewing on a Button*. Begin sewing 1/2" back into the seam then across the opening and keep sewing another 1/2" onto the other side of the previous stitching. Secure and knot the end of the thread.



Prepared by:
Marla Day, Extension Associate
Apparel, Textiles, and Interior Design
Kansas State Research and Extension



Hemmed-In

Supplies Needed:

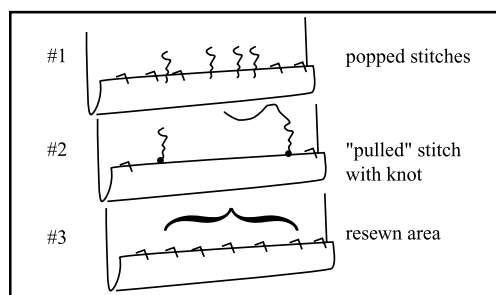
- Basic sewing kit, thread, needle, pins
- Iron and ironing board or towels
- *How To Replace a Button* handout

From the sewing kit, select thread that matches the garment fabric as closely as possible. Refer to the handout *How To Replace a Button* for how to thread the needle and knot the thread ends.

Hand or Inconspicuous Machine-Stitched Hems

Repairs can be easily made to loose or missing hand stitches by following these steps:

- First, remove only the broken or loose stitches by carefully pulling stitches out on each side of the broken section. *Figure 1*
- Secure each side by threading a needle with the "pulled" stitches and knot to keep remaining stitches from loosening. Trim away excess thread above the knot. *Figure 2*
- Re-sew missing hem stitches using either hemming stitch or catch stitch. *Figure 3*



Hemming Stitch

Stitches are made from right to left. On wrong side of fabric, secure end of thread and bring needle and thread through the hem edge. Directly behind this point, catch only one thread from garment fabric. Direct the needle to go diagonally to the left about 1/4" and pull needle and thread through hem edge. Repeat until hem repairs are complete.

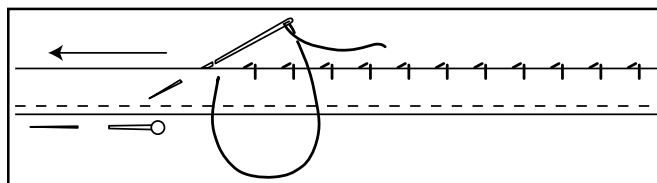
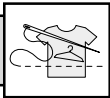


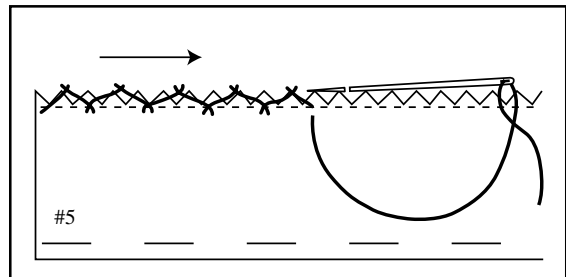
Figure 4

Prepared by:
Marla Day, Extension
Associate, Apparel, Textiles, and Interior Design,
Kansas State Research and Extension



Catch stitch

Stitches are made left to right with the needle point left. Secure end of thread in hem allowance, then bring needle and thread through hem edge and then take a very small stitch in the garment fabric about 1/4" over to the right. Bring needle and thread down to hem edge, and then take another tiny stitch. Keep zig-zagging between garment and hem edge to secure. **Figure 5**

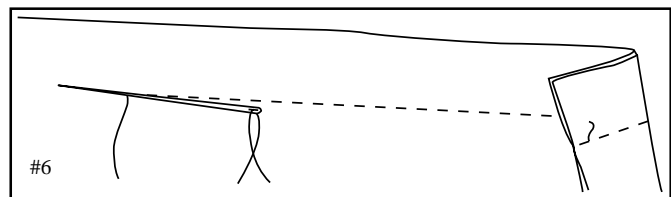


Top Stitched Hems

Hems originally sewn by machine can be replaced with either hand stitches or a sewing machine. If a sewing machine is not available, try a hand stitch method called the back stitch that simulates machine type stitches.

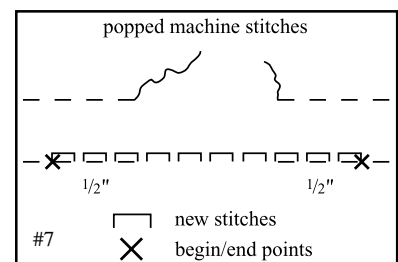
Back stitch

Bring needle and thread to right side of fabric. Insert needle back down into fabric layers about a half a stitch length behind the point where the thread emerged. Then bring needle and thread out the same distance in front of that point. Repeat stitch until stitches overlap 1/2" onto previous stitching. **Figure 6**

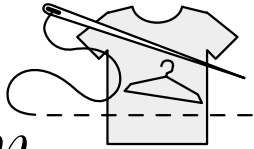


Machine Stitching

If machine sewing the hem, select a matching thread and then thread machine. Pin the hem area to be stitched and lightly press with the iron. Stitch at exactly the same distance from the hem as previous stitching. Begin sewing 1/2" back from the popped hem area (see X on diagram) and then stitch onto previous stitching for another 1/2". Backstitch 2 to 3 stitches when beginning and ending machine stitches. **Figure 7**



Lightly press hem repairs with an iron, using temperature recommended on the garment's care label. A folded towel placed on a heat resistant surface may substitute for an ironing board.



Sewing On A Button

Keeping clothing in good repair allows you to enjoy them longer and keeps the “to do” list manageable. Loose or missing buttons is a common clothing repair. But how many of us have lost buttons and then tossed the clothing into the mending pile only to never see it again? The best time to re sew a loose button is when you discover it. Following this advice will save time and money because you won’t be shopping for a replacement or searching the house for the one button that “got away.”

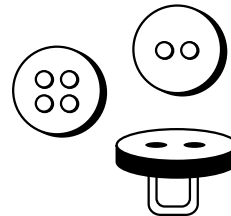
Where Do You Begin?

From your sewing kit select:

Thread to match the fabric
Button
Needle
Toothpick
Straight pins
Pencil
Ruler
Scissors

Button Types

2 or 4 hole, or shank



Threading the Needle

Wind off of the spool approximately 30" of thread, and cut at an angle across the thread with scissors. Cutting at an angle with scissors makes the thread easier to insert into the eye of the needle. Put the angle-cut end through the needle eye, and bring the two ends together and knot.

Make a Knot

Take the two ends together, and loosely wrap around the end of your finger. Tuck the ends through the loop, and pull ends to close the loop. Trim remaining tails within 1/8" of the knot. Repeat the process if the knot pulls through the fabric.

Buttons

If the button is lost, try to locate one that is similar. Check with your local fabric or discount store for buttons. A good idea for next time is to have a container to put extra buttons in as they turn up around the home.

Prepared by:

*Marla Day, Extension Associate,
Apparel, Textiles, and Interior Design,
Kansas State Research and Extension*



Sewing On A Button

Handout E

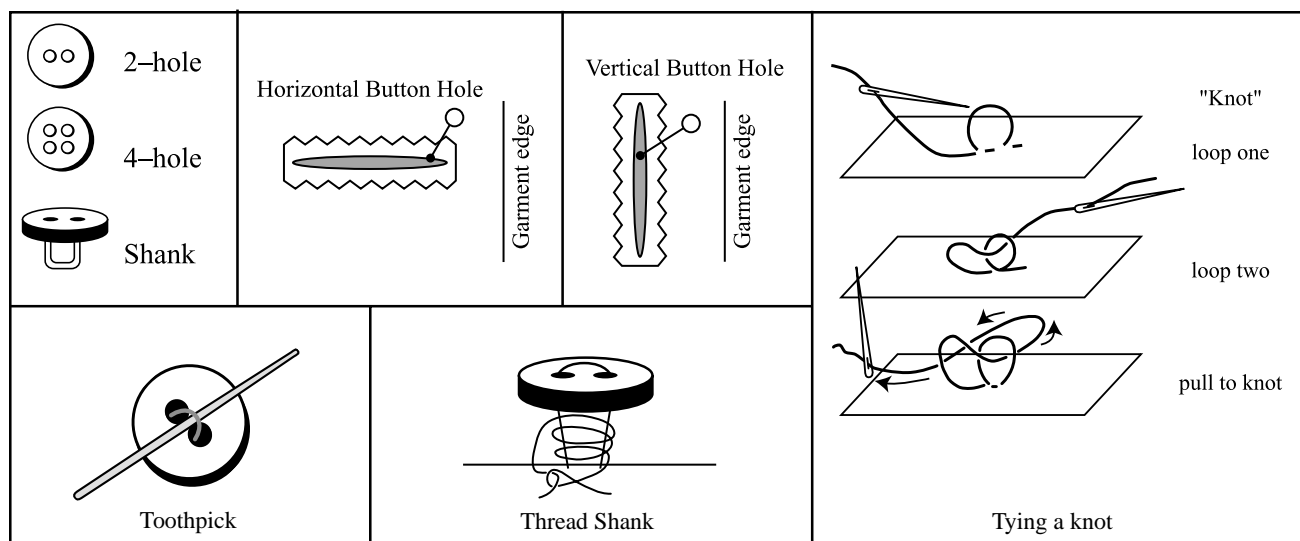
Where Do You Attach It?

To locate the placement of a missing button, look for the threads left in the garment. If these are missing, the location can be found again by:

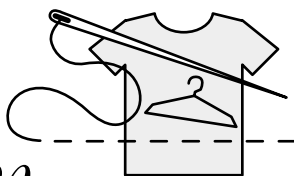
1. Close the garment so that it looks as if it is buttoned.
2. For horizontal buttonholes, place a straight pin near the end of the buttonhole.
For vertical buttonholes, pin in the center.
3. Open the garment, leaving the standing pin still in the garment.

Sewing

1. Take a small stitch on the front of the garment, where the button is to be sewn onto.
2. Bring the needle up through one hole of the button and back down the other hole.
Then put the needle through the fabric, and pull the button down to the surface.
3. Place a toothpick under the stitch just completed, so it sits on top of the button.
4. Bring the needle back up through the button, across the toothpick, then down through the hole and the back of the fabric. Repeat this up through, over down, and under process at least four times. Remove the toothpick from the top of the button. If your button already has a shank, skip using the toothpick, and proceed to the step 6.
5. The button will be loosely sewn to the garment. Pull the button up, and wind the thread around the threads holding the button. Pull tightly. This creates a thread shank.
6. Take a stitch on the surface of the fabric, next to the thread shank. Then put needle through fabric to inside of garment, and take two to three tiny stitches on top of each other.
7. In the last tiny stitch, prepare to tie a knot. Pull the thread until you form a tiny loop. Put the needle through loop one. Pull the thread a second time until loop two is formed. Put the needle through loop two and pull the thread again until a small knot is formed tight against the fabric.



BASIC *Apparel Management*



Evaluation

Basic Apparel Management

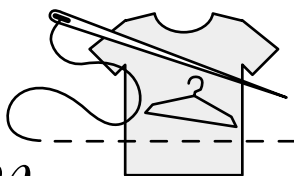
Evaluation instruments are included to measure progress toward the following objectives:

- A. Participants will become aware of their need for basic living skills related to apparel management.
- B. Participants will determine which of these basic skills they want to acquire or improve and they will develop and implement a plan to achieve these skills.
- C. Participants will increase their competencies in maintaining their apparel.
- D. Participants will report improvement in their apparel management.

Administering the self-evaluation forms to determine teaching strategies and assessing the results of the learning:

- Ask participants to fill out the self-evaluation sheets headed *Evaluation: My Need to Know More About Apparel Management and An Assessment Of How My Apparel Management Activities Affect My Family's Health and Well-Being*. These should be filled out before any lessons are implemented.
- Then ask the participants to fill out the self-evaluation sheets *My Plan For Improving My Skills* that relate to the areas they indicated they want to improve. For example, if a participant indicated on the first form that it was important for her to know more about using laundering equipment and procedures effectively, ask her to fill out the sheet called *Wash Wonders 101* and *Drying Details* to list goals and plans for achieving goals.

BASIC *Apparel Management*



Evaluation

Basic Apparel Management

- If the participants indicate that they would attend workshops, use the lesson plans that follow to give the lessons most needed. Alternatively, give the participants the fact sheets to read on their own if they indicate that they prefer to use that learning strategy. Except for Lesson 1, the lessons do not need to be given in any particular order.
- Six months after the lessons, ask the participants to again fill out form ***D. An Assessment Of How My Home Apparel Management Activities Affect My Family's Health and Well-Being.*** Compare the answers on this instrument to the answers the participants gave on this same instrument before the lessons. Report the differences in the two assessments.

Send completed forms to:

Paula Peters

Justin Hall 119

Kansas State University

Manhattan, KS 66506

- or -

Marla Day

Justin Hall 236 B

Kansas State University

Manhattan, KS 66506

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available on the World Wide Web at: <http://www.oznet.ksu.edu>

Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, credit Marla Day, Basic Apparel Management, Kansas State University, October 2001.

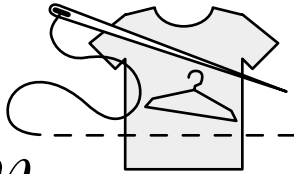
Kansas State University Agricultural Experiment Station and Cooperative Extension Service

S-134h

Oct. 2001

It is the policy of Kansas State University Agricultural Experiment Station and Cooperative Extension Service that all persons shall have equal opportunity and access to its educational programs, services, activities, and materials without regard to race, color, religion, national origin, sex, age or disability. Kansas State University is an equal opportunity organization. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Marc A. Johnson, Director.

BASIC Apparel Management



Evaluation

Basic Apparel Management

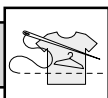
— Instrument to be administered before classes —

Please answer the following questions. Your name will not be attached to this piece of paper or to your answers. Confidentiality will be respected at all times. Please use a ✓ or X or fill in the best answer for each line.

Measurable Objective A:

“Evaluating My Need to Know More About Apparel Management”

	1	2	3	4	5
<i>How important is it for me to know more about ...</i>	Not Important At All	Not Important	Maybe	Important	Very Important
Planned Purchases?					
Assessing Current Wardrobe?					
Keeping Wardrobe purchases within budget?					
Caring for your family's apparel is manageable?					
Knowing what treatments to use for stain removal?					
Using laundering equipment and procedures effectively?					
Storing seasonal apparel?					
Doing minor repairs?					

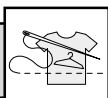


– Instrument to be administered after classes –

Measurable Objective B:

“My Plan for Improving My Skills”

1. During the next six months, I would like to improve my skills in wardrobe management for my family.
☐ Yes ☐ No
2. My goals for improvement in the areas of wardrobe management: *(please check all that apply)*
 - ☐ Undergo a clothing inventory and needs assessment of each family member's wardrobe
 - ☐ Discuss why family members liked to wear certain favored garments over others
 - ☐ Other *(please write in)* _____
3. Date I plan to achieve these goals: _____
(date)
4. My plan for achieving these goals includes:
 - ☐ Attending classes or workshops
 - ☐ Reading publications
 - ☐ Other *(please write in)* _____
5. My plan for implementing my goals for wardrobe management includes:
 - ☐ Remove unneeded apparel items from the home by giving them away, selling or recycling them
 - ☐ Use the fitting tips when shopping for apparel
 - ☐ Select apparel made from seasonless fabrics and basic styles to expand mine and my family's wardrobe
 - ☐ Keep measurements for family members current, giving basic styles and colors needed, with me when shopping
 - ☐ Select apparel with growth features for my children as needed
 - ☐ Teach children how to put away their clothes
 - ☐ Other *(please write in)* _____

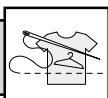


— Instrument to be administered before classes —

Measurable Objective B:

“My Plan for Improving My Skills”

1. During the next six months, I would like to improve my skills at keeping my family's apparel stain-free.
☐ Yes ☐ No
2. My goals for improvement in the treatment of stains are:
(*please check all that apply*)
 - ☐ Learning how to treat stains based on their type
 - ☐ Learning how stain treatments vary by fabric
 - ☐ Learn how to make a schedule for laundering
 - ☐ Other (*please write in*) _____
3. Date I plan to achieve these goals: _____
(date)
4. My plan for achieving these goals includes:
 - ☐ Attending classes or workshops
 - ☐ Reading publications
 - ☐ Other (*please write in*) _____
5. My plan for implementing my goals for improving:
 - ☐ Making a laundering schedule or action plan
 - ☐ Buying or making stain removal products
 - ☐ Setting aside time each day for pretreating stains
 - ☐ Other (*please write in*) _____

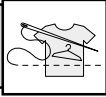


— Instrument to be administered before classes —

Measurable Objective B:

"My Plan for Improving My Skills"

1. During the next six months, I would like to improve my skills when using the washing machine to keep my family's clothing appearance appealing.
☐ Yes ☐ No
2. My goals for improvement in the washing process of laundering apparel are: *(please check all that apply)*
 - ☐ Learn how to use the washing machine's cycles and temperatures to full potential
 - ☐ Help family members develop responsible habits in caring for stains
 - ☐ Learn about the information on clothing care labels
 - ☐ Learn how to diagnose laundering problems
 - ☐ Learn methods to conserve energy use in washing apparel
 - ☐ Other *(please write in)* _____
3. Date I plan to achieve these goals: _____
(date)
4. My plan for achieving these goals includes:
 - ☐ Attending classes or workshops
 - ☐ Reading publications
 - ☐ Other *(please write in)* _____
5. My plan for implementing my goals for improving:
 - ☐ Read owner's manual for laundering equipment
 - ☐ Teach family members to pretreat stains
 - ☐ Apply the information on clothing care labels when laundering
 - ☐ Use skills in diagnosing laundering problems
 - ☐ Use resources wisely when laundering, conserving water, electricity, gas and laundering products
 - ☐ Other *(please write in)* _____

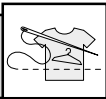


— Instrument to be administered before classes —

Measurable Objective B:

“My Plan for Improving My Skills”

1. During the next six months, I would like to improve my skills when using the clothes dryer to keep my family's clothing appearance appealing.
☐ Yes ☐ No
2. My goals for improvement in the drying process of laundering appear are:
(please check all that apply)
☐ Learn how to operate the clothes dryer
☐ Learn about other methods for drying
☐ Other (please write in) _____
3. Date I plan to achieve these goals: _____
(date)
4. My plan for achieving these goals includes:
☐ Attending classes or workshops
☐ Reading publications
☐ Other (please write in) _____
5. My plan for implementing my goals for improving:
☐ Read the owner's manual for the clothes dryer if available
☐ Use other means to dry apparel to conserve resources
☐ Other (please write in) _____



— Instrument to be administered before classes —

Measurable Objective B:

“My Plan for Improving My Skills”

1. During the next six months, I would like to improve my skills at keeping my family's apparel pest and stain-free after storing.

☐ Yes

☐ No

2. My goals for improvement in the storage of apparel are:
(*please check all that apply*)

☐ Learn methods to prevent pest damage

☐ Learn treatments to control pest infestation in the home

☐ Learn safe methods for storing seasonal apparel

☐ Other (*please write in*) _____

3. Date I plan to achieve these goals: _____
(*date*)

4. My plan for achieving these goals includes:

☐ Attending classes and workshops

☐ Reading publications

☐ Other (*please write in*) _____

5. My plan for implementing these goals for improving:

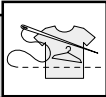
☐ Implement preventive pest control schedule in the home

☐ Monitor home environment regularly for evidence of pests

☐ Buy storage containers for storing seasonal apparel

☐ Make a schedule for cleaning closet surfaces, walls, baseboards and shelving

☐ Other (*please write in*) _____

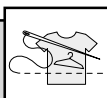


— *Instrument to be administered before classes* —

Measurable Objective B:

"My Plan for Improving My Skills"

1. During the next six months, I would like to improve my skills at keeping my family's apparel mended and in good repair.
☐ Yes ☐ No
2. My goals for improvement in the repairing apparel are:
(*please check all that apply*)
 - ☐ Learn how to make a timely schedule for mending and repairs
 - ☐ Learn which sewing techniques to use for minor repairs
 - ☐ Learn what equipment is needed to do minor repairs
 - ☐ Learn how to teach family members about helping with minor repairs
 - ☐ Other (*please write in*) _____
3. Date I plan to achieve these goals: _____
(*date*)
4. My plan for achieving these goals includes:
 - ☐ Attending classes or workshops
 - ☐ Reading publications
 - ☐ Other (*please write in*) _____
5. My plan for implementing my goals for improving:
 - ☐ Make a schedule for doing mending
 - ☐ Practice sewing techniques regularly
 - ☐ Purchase needed equipment
 - ☐ Set aside time regularly to do mending and repairs with family
 - ☐ Other (*please write in*) _____



Basic Apparel Management

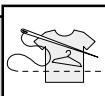
Evaluation

– Instrument to be administered following classes –

Measurable Objectives C:

‘Evaluating My Progress Toward Meeting My Goals’

	1	2	3	4	5
<i>Progress I have made toward accomplishing my goals in these areas ...</i>	I Do Not Plan to Improve	I Plan to Improve	I Am Improving Somewhat	I Am Improving Well	I Have Improved
My family has completed an inventory of their wardrobe					
We are reviewing budget, needs and wants for apparel purchases individually					
Established a regular schedule for laundering apparel					
Helping family members establish good habits for pretreating stains					
Read the owner’s manuals for laundering equipment if available					
Use energy saving measures when laundering					



Basic Apparel Management

Evaluation

— Instrument to be administered before classes, following classes
and at 6- and 12-month follow-ups —
Measurable Objective D:

“An Assessment of How My Apparel Management Activities Affect My
Family’s Well-Being and Resources”

	1	2	3	4	5
<i>How often does the following occur?</i>	Never	Sometimes	About 1/2 of the Time	Often	Always
Our apparel is stain-free and in good repair					
Each member wears or uses each garment in their wardrobe					
Determine good value when shopping for new apparel items					
Recognize actual fit of apparel on the body					
Uses basic styles for wardrobe planning					
Record measurements of family members to use when shopping					
Have a stain kit accessible to family members					
Treat stains as soon as possible					
Use laundry products effectively					
Recognize and use garment labels in determining laundry treatments					
Use laundering equipment’s cycles, levels and temps. to their full potential					
Have a pest prevention plan in place					
Storage needs for seasonal apparel are in place					
Created a system for completing minor clothing repairs					

Return to Paula Peters or Marla Day

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended,
nor is criticism implied of similar products not mentioned.

Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, credit Marilyn
Bode, Extension Housing Specialist, Basic Home Maintenance, Kansas State University July, 2000.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

S-134h

JULY 2000

It is the policy of Kansas State University Agricultural Experiment Station and Cooperative Extension Service that all persons shall have equal opportunity and access to its educational programs, services, activities, and materials without regard to race, color, religion, national origin, sex, age or disability. Kansas State University is an equal opportunity organization. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Marc A. Johnson, Director.