

# Essential

LIVING SKILLS

## APPAREL MANAGEMENT



**K-STATE**  
Research and Extension

# Acknowledgments

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# Contents

## ESSENTIAL LIVING SKILLS — APPAREL MANAGEMENT

### 4 Evaluation

#### 14 Wardrobe Action Plan

15 Leader's Guide

#### 16 Wardrobe Action Plan

19 Handout A — Wardrobe Planning

21 Handout B — What Worked, What Didn't?

22 Handout C — Quality Details in Apparel

24 Handout D — Tips for Fitting: What Do Those Fold Lines Mean?

26 Handout E — Creating a Seasonless Wardrobe

27 Handout F — Wardrobe Planning: Inventory Guide

29 Handout G — Basic Styles for Professional Work

31 Handout H — Measuring the Body

33 Handout I — Growing Kids: What Are the Options?

### 35 Spot Attack

36 Leader's Guide

#### 37 Spot Attack

39 Handout A — Putting Together a Stain Kit

41 Handout B — Blot it Out! Stain Removal

45 Handout C — Special Laundry Aids or Just the Basics?

### 47 Wash Wonders 101

48 Leader's Guide

#### 49 Wash Wonders 101

53 Handout A — Laundry Product Know-How

56 Handout B — Kids Can Too! Working Together

57 Handout C — Labels: What Do They Tell You?

60 Handout D — Decoding Your Washing Machine

64 Handout E — Road Map for Results

67 Handout F — Doing Laundry at a Public Laundromat

69 Handout G — Conserving Energy in the Laundry

### 71 Drying Details

72 Leader's Guide

#### 73 Drying Details

74 Handout A — Hang Ups and Other Options

76 Handout B — Sizing Up the Cycle Code

### 78 Storage Solutions

79 Leader's Guide

#### 80 Storage Solutions

82 Handout A — Beetles, Moths, and Silverfish, Oh My!

83 Handout B — Controlling Apparel Storage

### 86 Make A-Mends: Minor Repairs

87 Leader's Guide

#### 88 Make A-Mends: Minor Repairs

90 Handout A — Basic Sewing Kit

91 Handout B — Seam Pop

92 Handout C — Hemmed In

94 Handout D — Sewing on a Button

# EVALUATION

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## **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.
- 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.

Participants should return their completed evaluations to their local extension agent or program facilitator.

# 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. The information you share with us will help us evaluate, develop, and deliver K-State Research and Extension Family and Consumer Sciences programs more effectively.

## Measurable Objective A: “Evaluating My Need to Know More About Apparel Management”

Please use a ✓ or ✗ or fill in the best answer for each line.

	1	2	3	4	5
How important is it for me to know more about ...	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?					

# EVALUATION: WARDROBE ACTION PLAN

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— 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 in wardrobe management for my family.  
 Yes       No
2. My goals for improvement in the area 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: \_\_\_\_\_
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 current measurements for family members, 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)* \_\_\_\_\_

# EVALUATION: SPOT ATTACK

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— 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: \_\_\_\_\_

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)* \_\_\_\_\_

# EVALUATION: WASH WONDERS 101

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— 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: \_\_\_\_\_

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) \_\_\_\_\_



# EVALUATION: DRYING DETAILS

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— *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 apparel 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: \_\_\_\_\_

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)* \_\_\_\_\_

# EVALUATION: STORAGE

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— 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: \_\_\_\_\_

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:

- 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)* \_\_\_\_\_

# EVALUATION: MAKE A-MENDS: MINOR REPAIRS

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— *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 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: \_\_\_\_\_

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:

- Make a schedule for doing mending.  
 Practice sewing techniques regularly.  
 Purchase needed equipment.  
 Set aside time to regularly do mending and repairs with family.  
 Other *(please write in)* \_\_\_\_\_

# APPAREL MANAGEMENT – EVALUATION

— 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.

## Measurable Objectives C: ‘Evaluating My Progress Toward Meeting My Goals’

Please use a ✓ or ✗ or fill in the best answer for each line.

	1	2	3	4	5
Progress I have made toward accomplishing my goals in these areas ...	I Do Not Plan to Improve	I Plan to Improve	I Am Improving Somewhat	I Am Improving Well	I Am Meeting My Goals
My family has completed an inventory of their wardrobes.					
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.					

# APPAREL MANAGEMENT – EVALUATION

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

## Measurable Objective D: Follow-up

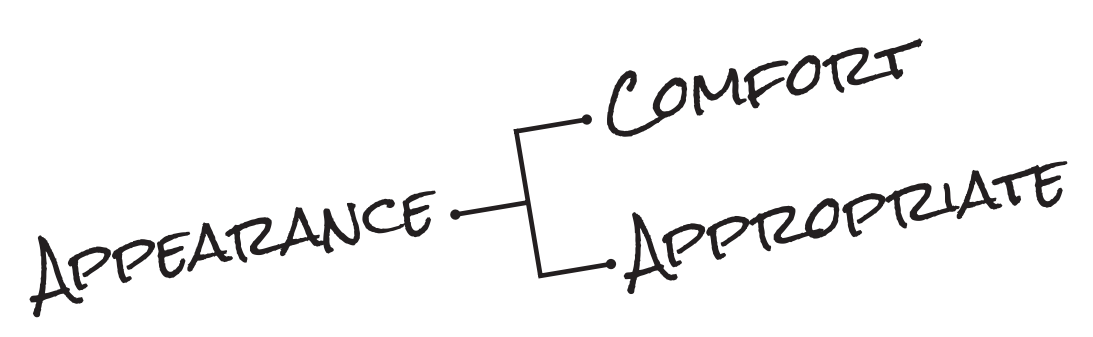
### “An Assessment of How My Apparel Management Activities Affect My Family’s Well-Being and Resources”

Please use a ✓ or ✗ or fill in the best answer for each line.

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

# Section 1

## WARDROBE ACTION PLAN



# LEADER'S GUIDE

## PROGRAM DESCRIPTION

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.

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## 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.

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## RELATED CONCEPTS

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.

## Comments/Notes

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 ACTION PLAN

Comments/Notes

## 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 take current resources into account.

**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, 2T (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 inches larger for bust, chest, and hip areas. Most people prefer  $\frac{1}{2}$  to 1 inch of additional length at the waist.

## HANDOUT A — WARDROBE PLANNING

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### 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 described 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 individual's 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

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White	Tan	Black	Camel	Ivory	Beige	Navy	Brown	Gray	Taupe
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Look at the items remaining in each member's wardrobe. Is a particular color 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 considered classics include olive, teal, royal blue, burgundy, forest green, and plum. Print choices include plaids, paisleys, 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 affect 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 time 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. When adding “trendy” styles to your wardrobe, be sure the fit of the garment is correct and coordinates with multiple 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. Ensure 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 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.

## HANDOUT B — WHAT WORKED, WHAT DIDN'T?

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After completing a closet inventory, you separated the clothing into three categories — garments you 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.

## HANDOUT C — QUALITY DETAILS IN APPAREL

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Quality does not always mean spending a lot of money. Many manufacturers and retailers add these “quality details” in apparel at many 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:

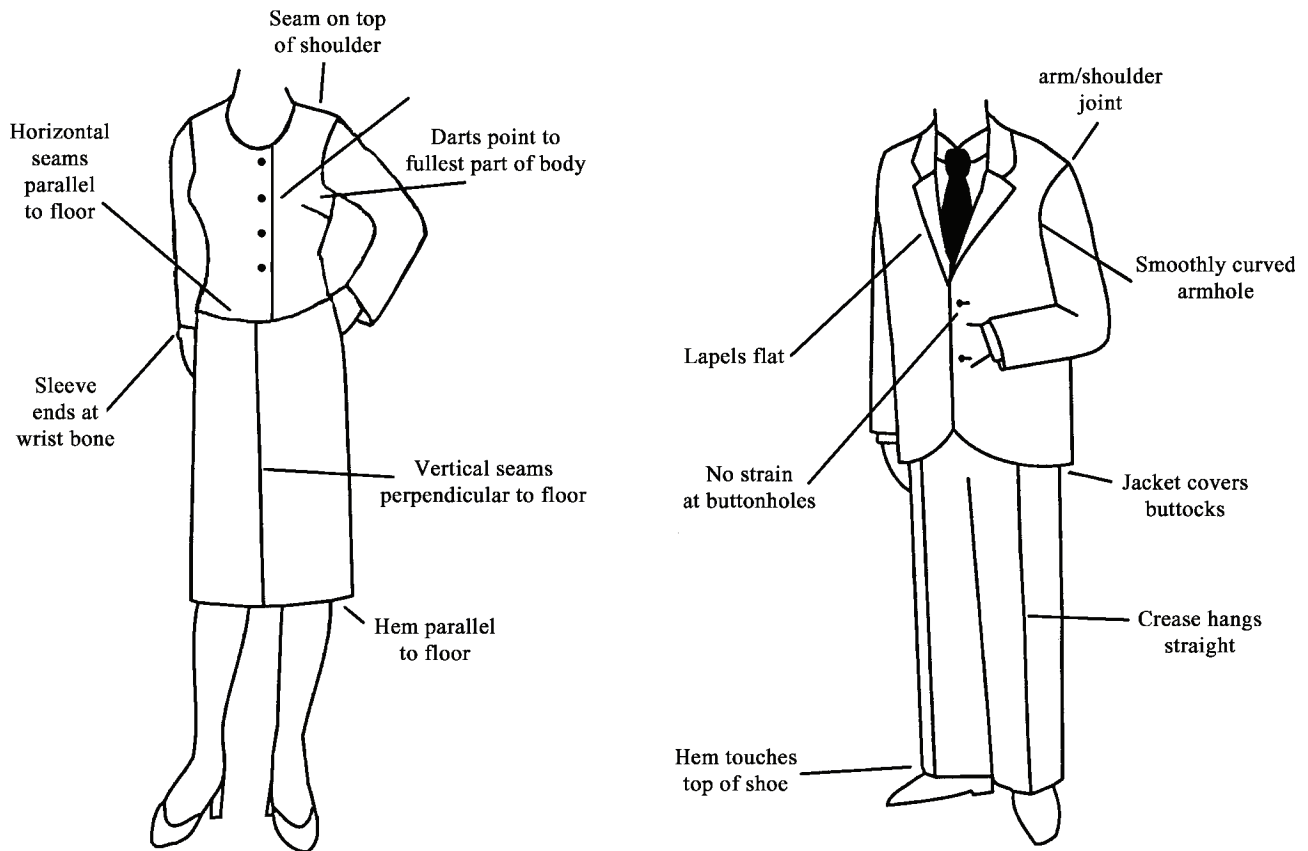
**Fabric** is the basic foundation of apparel. Fabric is woven of yarns that run up-and-down or across. When apparel is cut from the fabric, it too should run up-and-down and across. Sometimes apparel is not cut correctly, and actually causes clothing to twist around the body. This is called off-grain, and cannot be corrected. Off-grain apparel is a result of poor quality control during the manufacturing process.

1. 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.
2. 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.
3. 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.
4. Seams within a garment should be securely sewn. Check to make sure threads have not popped or ruptured along all seams. Seams with serging (overcast stitching to prevent fraying) are more secure and of higher quality as long as the correct tension was used when sewn. Tug along a seam to see if it has enough tension to resist popping.
5. Design features within apparel can also help you judge quality.
  - a. Collars should lie smooth against the body. Corners should not roll or pucker, and each end of the collar should be the same length and shape.
  - b. 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.

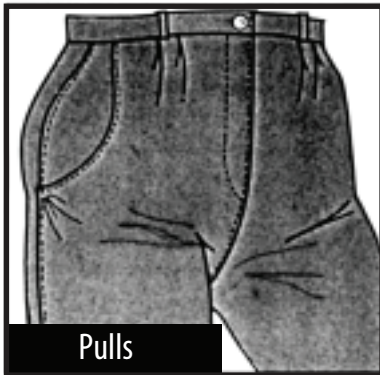


## HANDOUT D — TIPS FOR FITTING: WHAT DO THOSE FOLD LINES MEAN?

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.

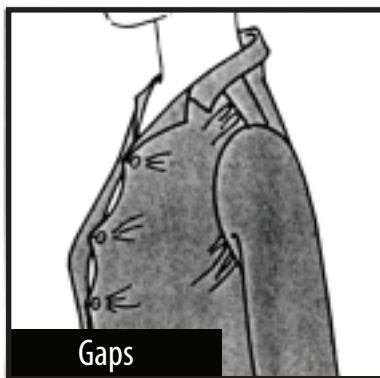






**Pulls**

**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.



**Gaps**

**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.

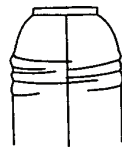
### Combination Fitting Solutions

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.



**Off Grain**

Tense, horizontal wrinkles = too tight



Skirt too tight through hips

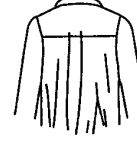


Jacket too tight through shoulders

Loose, vertical folds = too loose

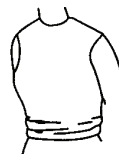


Sleeve too loose



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

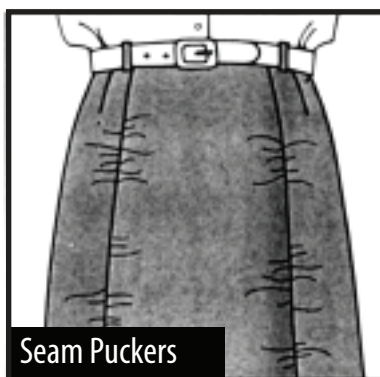
Diagonal wrinkles point to body bulges



Bodice too tight across bust



Pants too tight across abdomen



**Seam Puckers**

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, try a women's size to fit a fuller figure and has a longer crotch length.

## HANDOUT E — CREATING A SEASONLESS WARDROBE

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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 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 you will have less stuff cluttering up your closet!

## HANDOUT F — WARDROBE PLANNING: INVENTORY GUIDE

	Clothes I have and colors	Clothes I need and color	Estimated cost and approximate date of purchase
<b>Children</b>			
T-Shirt/Tops			
Pants/Jeans			
Shorts			
Dresses			
Skirts			
Shoes Play/Dress			
Coats			
Hat/Cap/Gloves			
Outdoor Jackets			
Sports Apparel & Equipment			
<b>Teens</b>			
T-Shirts/Tops, short sleeve			
T-Shirts/Tops, long sleeve			
Shirts/Blouse			
Slacks/Jeans			
Sweaters			
Sweatshirts/sweatpants			
Skirts			
Shorts			
Blazers/Sport Coat			
Suits			
Coat			
Outdoor Jacket			
Hat/Cap/Gloves			
Sport Clothes/Equipment			
<b>Women</b>			
Tops/T-Shirts/Blouses			
Shorts			
Sweaters			
Dresses			
Skirts			
Slacks/Jeans			
Blazers/Suits			
Jacket/Coat			
Sweatshirts/Sweatpants			
Swimsuit			

Wardrobe

## HANDOUT F — WARDROBE PLANNING: INVENTORY GUIDE

	Clothes I have and colors	Clothes I need and color	Estimated cost and approximate date of purchase
<b>Men</b>			
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			
Suit			
Outdoor Jacket			
Coat			
Hat/Cap/Gloves			
Swimsuit			
Sweatshirts/Sweatpants			
<b>Everyone</b>			
Pajamas/Gown			
Underwear (Bra/Slip)			
Underwear (Brief/Panty)			
Socks/hose			
Shoes (Dress/Casual)			
Boots			
Uniforms/Work Clothes			

## HANDOUT G — BASIC STYLES FOR PROFESSIONAL WORK

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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.

Whether you need apparel for work, school, or play, apparel that is able to cross over 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. Look for 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. Twin-sets are versatile for business or casual wear.
- Pants should have straight legs and 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 in basic styles such as straight, A-line, or slightly gathered, and have narrow waistbands with side or back closure.
- Shoes should be kept 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
- Slacks, select either from pleated or flat front styles
- Socks to match shoe or slacks
- Shoes, basic black — loafers for casual or dress-down days

## HANDOUT H — MEASURING THE BODY

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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 have a general idea of 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). Slim fit in both pants and shirts are made to fit closer to the body, providing a more defined fit.

### 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 12 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 CHILDREN'S 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 in the illustration. Take care 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 you're 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:

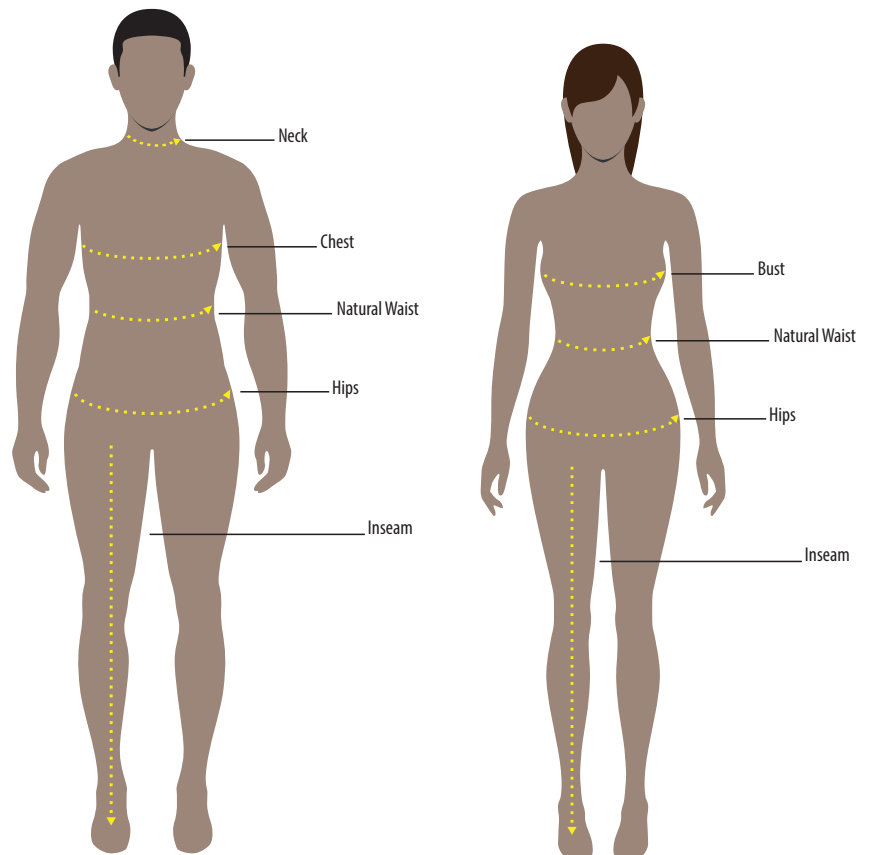
Waist:

Hip:

Sleeve Length:

Inseam Length:

Neck:



Wardrobe Handout H continued



## HANDOUT I — 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 (top and bottom)
- deep hems or cuffs that can be let down
- 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

Be aware of safety concerns 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.

### Child’s Name:

Date Measurements were taken:

Height:

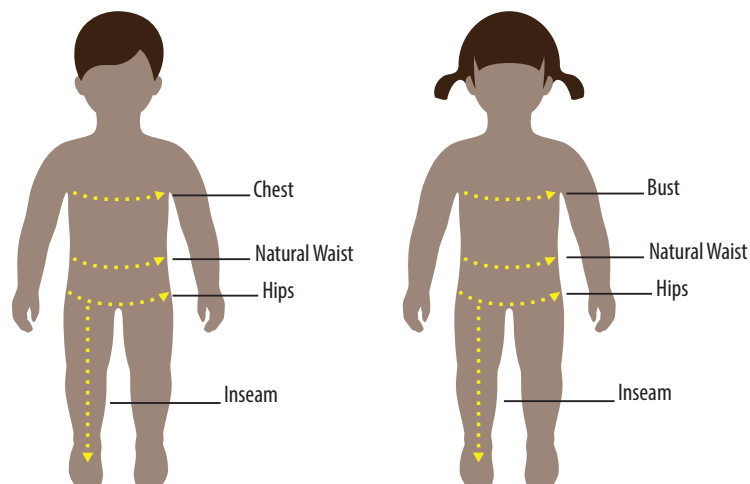
Weight:

Chest:

Waist:

Shoe Size:

Sock Size:



### Wardrobe Planning

Needed Items

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Colors Needed

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### 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

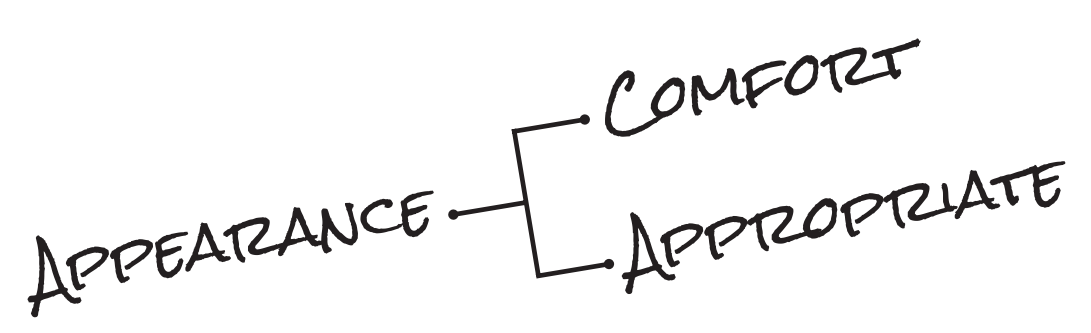
Bust or Chest (M/F) 2 to 3 inches

Waist (M/F) 1 inch

Hips (M/F) 2 to 3 inches

# Section 2

SPOT ATTACK



# LEADER'S GUIDE

## PROGRAM DESCRIPTION

You're 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 whites 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, reduces 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.

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## RELATED CONCEPTS

Handouts for the lesson Spot Attack:

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

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## OBJECTIVES

- When working with the stain removal products, always work on a non-porous surface such as 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.

## Comments/Notes

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.

# SPOT ATTACK

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## 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 a 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.
- Close 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 on an inconspicuous part 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. These extra treatments result in 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 almost any stain. Remind participants 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.

For 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?

### Other Resources

4-H Clothing and Textiles Curriculum, Level II, Care and Maintenance — Mystery Stain Removal  
American Cleaning Institute website: <http://www.cleaninginstitute.org/>

## HANDOUT A — 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, whitens
	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 colorfast fabrics
	Color removers	Reduce or completely remove colored dyes from apparel	Removing rust or dye stain 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 fabrics	Can be left for three or four days before laundering
	Gel	Apply ASAP to stain, can be left up to one week before laundering	Bright or fluorescent colors should be washed immediately

## STAIN REMOVAL KIT

PRODUCT 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	Remove ballpoint ink	Ventilation required, flammable and not for use on acetate fabrics
Ammonia	Liquid (no added color or fragrances)	Good grease-cutting agent	Helps keep antiperspirant stain from developing. Never mix with bleach or use on silk or wool fabrics
Alcohol	Liquid, 70% to 90% concentration	Dissolves and removes color in some stains	Diluted 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	Removed yellowed antiperspirant 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



## HANDOUT B — BLOT IT OUT! STAIN REMOVAL

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### 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 you're 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

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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 contain benzoyl peroxide and may cause color loss on fabrics. Waxy or greasy residue may appear along the hem of 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 ¼ cup of water. Use a cotton-tipped swab and dip into the solution, 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.

## 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	Egg	Mucus
Baby formula	Feces	Mud
Blood	Gelatin	Pudding
Cheese	Ice Cream	Vomit
Cream	Milk	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 as 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	Cooking oil	Hand lotion
Bacon	Diesel fuel*	Lard
Butter/Margarine	Face cream	Mayonnaise
Car door grease	Gasoline*	Salad dressing
Collar/cuff soil	Hair oil	

\*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 the hottest 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	Watercolor or washable ink pens
Beer	Fruit juice
Berries (cranberries, raspberries, strawberries)	Soft drinks
Coffee	Tea
Cologne	Tomato juice

Spot Attack: Handout B continued

## 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 because of 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 — color loss from the bleaching action is irreversible.

Bleaching 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	Kool-Aid
Color bleeding from other garments	Mercurochrome, iodine, merthiolate
Felt tip pen (permanent ink may not come out )	
Grass	Mustard
India ink	Tempera paint

## COMBINATION STAINS

Use a two-step process, removing the oily portion of the stain first, followed by the dye portion of the stain. Check below for which group the stain is categorized in, and follow the directions given.

### GROUP A: OIL BASED

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.

Ball point ink	Floor wax
Candle wax	Furniture polish
Carbon paper	Lipstick
Crayon	Pine resin
Eye makeup	Shoe polish
Tar	Printer ink

### GROUP B: DYE/TANNIN

Rub heavy-duty liquid detergent into stain and wash.

Barbecue sauce	Calamine lotion	Cosmetics
Ketchup or tomato sauce	Cocoa or chocolate	
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.

**Nail Polish.** Spot treatments with acetone or polish remover are safe for most fabrics. Exceptions are acetate, triacetate, or modacrylic, which are dissolved by nail polish.

**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.

**Smoke.** Remove any soot outdoors. Launder using heavy-duty liquid or powdered detergent, with 1 cup all fabric bleach and 1 cup water softener 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. sponge with a clean cloth and detergent,
2. rinse cloth and sponge mattress with vinegar,
3. let air dry, and
4. sprinkle with washing soda, let set for 24 hours, then vacuum.

## HANDOUT C — SPECIAL LAUNDRY AIDS OR JUST THE BASICS?

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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 help you decide 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 to get out than others).

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 out of 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)

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#### 61¢ Sub Total

\$2.00*	7 squeeze bottle containers with caps for solutions listed above <i>*one time expense</i>
\$2.25	Solvent (cleaning fluid)
\$1.67	Waterless hand cleaner (as is)
.87¢	Acetone based nail-polish remover (without added color or fragrance)

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#### \$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	\$1.95 - \$2.97
<b>Total</b>	<b>\$10.08 - \$16.43</b>

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.

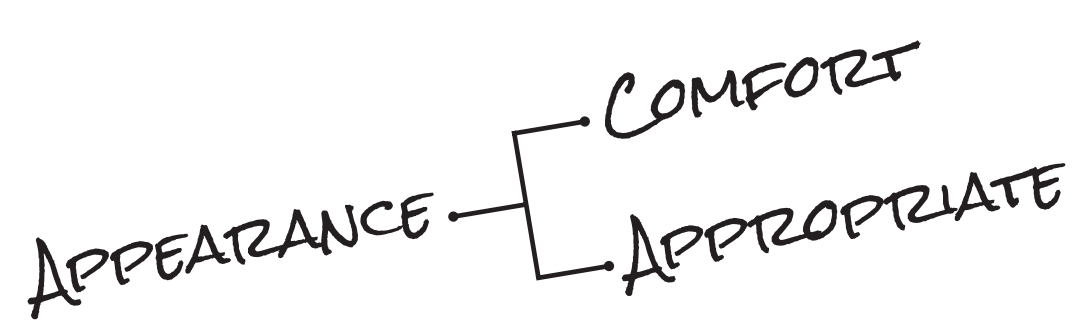
Consumer Caution: Often a company offers new or slightly reformulated products or size to attract consumers' interest and stimulate sales. This tactic leaves consumers with fewer choices and a more expensive product, often considerably more.

### 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.

# Section 3

WASH WONDERS 101



# LEADER'S GUIDE

## PROGRAM DESCRIPTION

Although laundering is often considered 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 aesthetic 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.

## RELATED CONCEPTS

- *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](http://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*

## Comments/Notes

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.



# WASH WONDERS 101

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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 exhausting, 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.

Introduce basic steps for laundry to participants. 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 before laundering to avoid additional damage.
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.

The publication, *Managing Time, Work, and Family — Getting Children to Help*, MF2256, includes nine steps to help develop a shared home-management system tailored to the needs of your family. While this publication is archived the K-State Research and Extension historical publications, the information is still relevant: <http://www.ksre.k-state.edu/historic-publications/pubs/MF2256.pdf>

#### 4. Loading the Washer:

- Measure and add detergent as recommended on the washer. 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.

### Comparing Labels for Detergents

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

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

## 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 moderate the amount of suds during cleaning.
- Fragrances mask base odors of the ingredients, soil, and package while providing special identity to the 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.

Comments/Notes

#### Other Resources

The K-State Research & Extension 4-H Clothing and Textiles Curriculum, Level II (publication S107), pages 127 to 136 includes activities and handouts to supplement this program information.

## HANDOUT A — LAUNDRY PRODUCT KNOW-HOW

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**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 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, these recommendations are for an average size load, average soil level of clothes, and 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 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 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 tablespoon chlorine bleach to 1 cup 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 and effective 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 effectively reduce odors. These products help reduce skunk, pet urine, cigarette, 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.

## 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, make fabrics softer and fluffier, and make 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 splotches do appear, pretreat stain and rewash.

## HANDOUT B — KIDS CAN TOO! WORKING TOGETHER

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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 laundry tasks are 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.
- Have family members empty pockets and close zippers when they change clothes and 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 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 your everyday appearance. Daily care means clothing lasts and looks new longer. Encourage everyone to participate in the daily routine of pretreating, sorting, and folding clothes into laundry baskets.



## HANDOUT C — LABELS: WHAT DO THEY TELL YOU?

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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 include the following information:

- 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 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 Website, found at: [www.ftc.gov](http://www.ftc.gov)

Online complaint form: <https://www.ftccomplaintassistant.gov/#&panel=1>

Washing Wonders Handout C continued

## HANDOUT D — DECODING YOUR WASHING MACHINE

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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° to 140° F)  
Warm-water wash (85° to 105° F)  
Cold-water wash (65° to 75° F)
- **Chemical energy** can be boosted by adding additional steps or products. Adding bleach (chlorine or oxygen), pretreating stains, presoaking, even using more detergent or an enzyme-based product improves cleaning results. These products and processes 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 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). Warm water is 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 increase the strength of bleach. It is safe for white cottons, underclothes, and pesticide-soiled garments.

*\* 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 1 of this handout. Seasonal adjustments may be needed during cold weather.

**Caution:** Setting the water heater at 110° to 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, (for example, 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 ensure 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, 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 temperature:** 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 temperature:** Whites or heavy soil — Hot  
Normal soiled colored garments — Warm  
Cold water rinses for all loads

### Delicates

Lingerie, washable silks, loosely knit items, 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

## HANDOUT E — ROAD MAP FOR RESULTS

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### 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. Treat 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, and even dye transfer.

## DON'T OVERFILL THE WASHING MACHINE

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

## 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 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 solves the wrinkle problem but causes an extra expense. If you discover them days after, they may have mildewed, causing you to purchase new garments.

## 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 4 to 8 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.

## HANDOUT F — DOING LAUNDRY AT A PUBLIC LAUNDROMAT

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Doing your laundry at a public laundromat can be a time saver, but you need to be cautious in doing so. Depending on how well the facility is maintained, it could also be a disaster. A public or shared laundry facility could be in a dorm, an apartment building, or down the street. Regardless of where it is located, keep in mind that all types of laundry are put into a public washer and dryer and the residue that is left could end up in your laundry.

Before you use to a public laundromat, begin your laundry prep just as if you were washing at home. Sort your clothing and organize it into various loads. This would be either by color, degree of soil, or type of items to be washed.

Make sure that when you are transporting your laundry to the laundromat that your containers or bags will be available to bring it home in as well. If possible, use a separate container for each different load; it makes it quick and easy to get your laundry started.

Also before you leave, make sure you have adequate change and your laundry washing products. Be careful when transporting open containers of laundry products, especially those that contain bleach. Also take a spray bottle of vinegar and a couple of old rags or a roll of paper towels.

When you get to the laundromat, place your items together on a counter or in a cart (if available) as you survey the laundromat to figure out what machines to use. Read and follow any posted laundromat rules.

Determine the number of washing machines you need. If the laundromat is equipped with super-capacity washing machines, you may be able to combine some of your loads and use fewer machines. Try to find the number of machines you need and the type of machines you need located near each other.

Haul your laundry to your selected machines and open the washing machines. Spray the disinfecting cleaner (vinegar) onto the surfaces of the washing machines and wipe the surfaces clean with the paper towels. You will even want to wipe down the tub or the interior of the machines as well. Throw the dirty paper towels away.

Read the machine's directions before you begin. Select the correct options and, unless there is a place to add the laundry detergent, always add it to the water before you add your clothes. This ensures that the detergent is distributed evenly throughout the wash.

Load your dirty laundry into the washing machines by the loads that you previously separated. Close the washing machines and insert the correct amount of money for the load. Pay attention to the time that the machine will be finished if it tells you the remaining minutes so you know when the cycle will be done. If you need to leave the facility, make sure that you are back before the end of the cycle. It might be to your advantage to stay at the facility until your laundry is done. Do not leave it unattended. Find a seat and occupy yourself with a good book while you wait.

When the washers are done, promptly remove your clothing and transfer them to a dryer that will do the best job for the load size. Again, clean each dryer by running your hand inside the drum to make sure it is free of any stray items and then by spraying it with your disinfecting cleaner and wiping it down with paper towels. Throw away the paper towels. Check the lint traps as well and empty them if necessary.

Load your wet laundry into the dryers you cleaned and prepared, along with a dryer sheet if you use them. Select your drying heat level and place the necessary money into the dryer. Make sure each dryer begins to operate. Note the length of time the dryers will run. Wait for your laundry to finish in the dryer. Do not leave it unattended, even in a dorm or apartment building.

When it is time for your dryers to be finished, get up and check your clothing. Determine whether you will need to add more money for longer drying times or whether your clothes will be sufficiently dried. Add more coins if necessary. If one load is done before its time, you might be able to split a second load in half and finish it out in the remaining time on the first machine. This will speed up your drying time and might save you some money.

Promptly remove your clothing and either fold or hang. Most dryers in laundry mats do not have an air cycle to prevent wrinkles.

Carefully repack your laundry into your containers for the trip home to ensure that you do not drop any laundry and get it dirty again.

Clean up after yourself before you leave. Clean the lint traps in the dryers you used. Throw away any trash you created. Pick up all your belongings. Make sure you have everything you brought with you.

## HANDOUT G — CONSERVING ENERGY IN THE LAUNDRY

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### 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 large amounts heat. 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:**

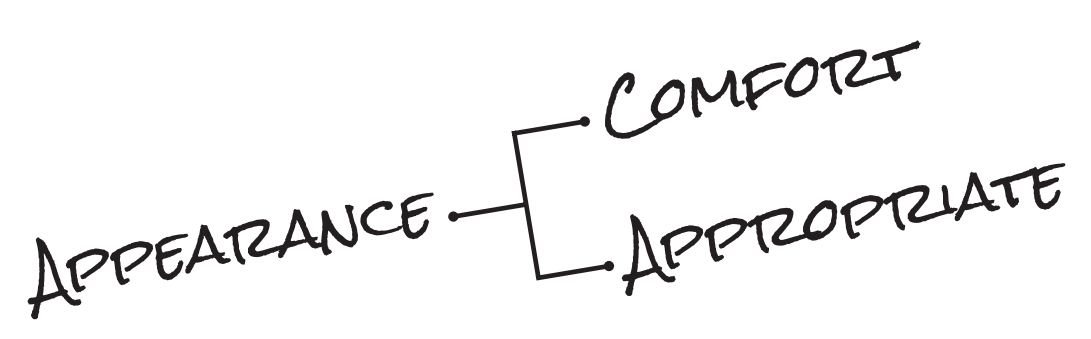
- Extract as much water as possible from clothes before putting them in the dryer. (The washer's spin cycle normally does this, but if clothes still seem unusually wet after one cycle, try running them through the spin cycle another time. You may also need to have the machine checked by a service technician.)
- 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.

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.

# Section 4

DRYING DETAILS



# LEADER'S GUIDE

## 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.
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## RELATED CONCEPTS

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

## Comments/Notes

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.



# DRYING DETAILS

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## Discussion Points

A clothes dryer is the second largest consumer of energy in the home; therefore it is essential 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. 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 lightweight 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 the 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. Temperature sensors average a 10 percent savings over timers.

## HANDOUT A — HANG UPS AND OTHER OPTIONS

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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, using 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 may 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. Consider the options available if you could choose to dry your clothes another way.

### **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 Saving 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 and 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.

## HANDOUT B — SIZING UP THE CYCLE CODE

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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 the “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 once or twice during the drying cycle 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, more dots equal 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.

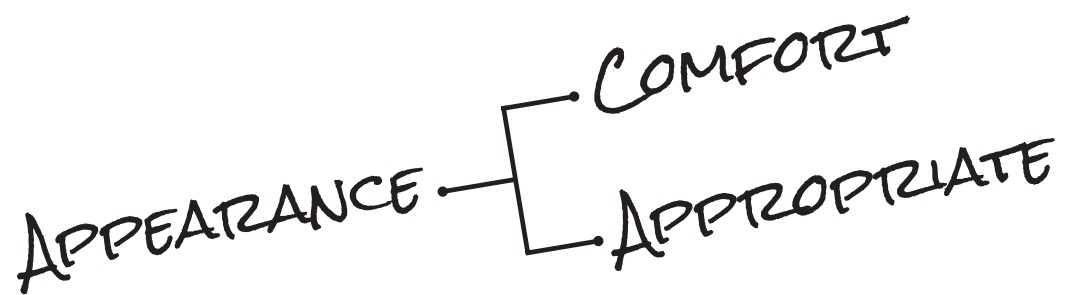
Synthetic and blended fabrics perform better when washed and dried in slightly *smaller* loads. These fabrics need to tumble freely in the machines to smooth wrinkles. Remove as soon as the dryer cycle is completed.

## 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.

# Section 5

STORAGE SOLUTIONS



# LEADER'S GUIDE

## PROGRAM DESCRIPTION

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.

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## RELATED CONCEPTS

Handouts for the Storage Lesson:

- 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.

## Comments/Notes

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.

# STORAGE SOLUTIONS

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## **Clothes Moths**

Two species: webbing clothes moth and the casement clothes moth look alike. Adult moths are yellowish or buff, with a wingspan 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 100 to 300 soft white eggs in concealed places such as clothing, household furniture, and cracks in the floor.

The eggs 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 such as 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  $\frac{3}{16}$  inch to  $\frac{1}{8}$  inch 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 mottled colorings of white, brown, yellow, or black, and are  $\frac{1}{8}$  inch long. The larvae are elongated and oval, with brownish or black bristles, and grow to  $\frac{1}{4}$  inch 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)

Comments/Notes

## HANDOUT A — BEETLES, MOTHS, AND SILVERFISH, OH MY!

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Prevention, detection and elimination! No we are not talking about the latest science fiction 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, and 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 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 reinfestation. 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 mothballs will not kill insects, but they do find it offensive and usually stay away. Unfortunately the scent is offensive to humans as well, and it 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 for pests.

## HANDOUT B — CONTROLLING APPAREL STORAGE

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### 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 apparel is 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, clothes 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 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.

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

## THE GOOD, THE BAD, AND THE UGLY ON STORAGE

Short-term storage is for apparel used daily. 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, and 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 delicate or knit items. 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:

Storage Solutions Handout B continued

- 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 fewer 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 ensure 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

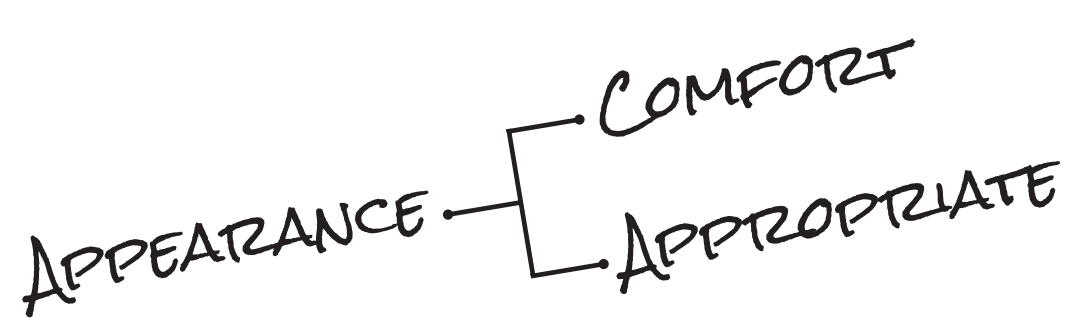
These items may be special garments worn at certain occasions, or have sentimental value. These items need great care. Refer to *Life's Tapestries: Securing the Past for the Future Lesson Series*.

*Life's Tapestries: Securing the Past for the Future*

To obtain a copy of this lesson series, write to: Marla Day, curator of the historic and costume textile museum in the College of Human Ecology, 338 Justin Hall, Manhattan, KS 66506

# Section 5

MAKE A-MENDS: MINOR REPAIRS



# LEADER'S GUIDE

## PROGRAM DESCRIPTION

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 repair popped seams provides an interactive learning model for the participants. Repairs mean a better overall appearance, fewer clothing replacements, and saves money for other needs.

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## OBJECTIVES

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

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## RELATED CONCEPTS

Handouts

- Basic Sewing Kit
- Seam Pop
- Hemmed In
- Sewing on a Button

## Comments/Notes

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.

# MAKE A-MENDS: MINOR REPAIRS

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## 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 (S107) 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 four-hole, jacket buttons usually have a shank, and 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 is on the garments they are wearing.

Have available sample buttons and fabric scraps to practice on and support the practical application of what participants are learning. If possible, have them bring items from home that need 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, (S107), 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.

## HANDOUT A — BASIC SEWING KIT



Scissors



Hand sewing needles (sharps)



Needle threader



Thread: general purpose, spools of black, white, khaki, navy, and gray



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

## HANDOUT B — SEAM POP

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Popped seams are the result of a seam under stress. To repair these seamlines, a very strong hand stitch called the back-stitch is recommended. 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.

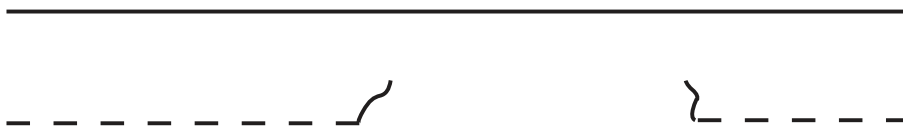
To sew a seam that has popped, turn the garment inside-out and locate the seam needing repair. Thread the needle and knot the thread according to the handout Sewing on a Button. Begin sewing ½ inch back into the seam then across the opening and keep sewing another ½ inch onto the other side of the previous stitching. Secure and knot the end of the thread.

### Refer to:

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

### Seam Pop

#1



#2



## HANDOUT C — 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 easily be 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 inch and pull needle and thread through hem edge. Repeat until hem repairs are complete. *Figure 4*

Figure 1, 2 and 3

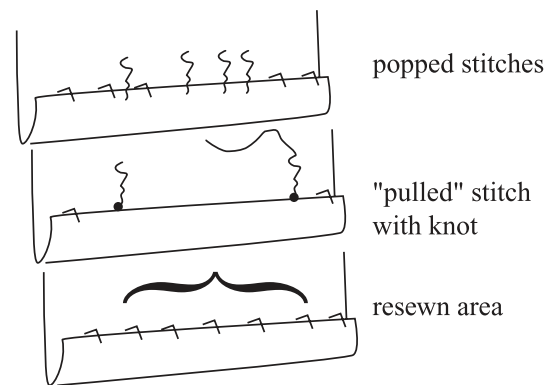
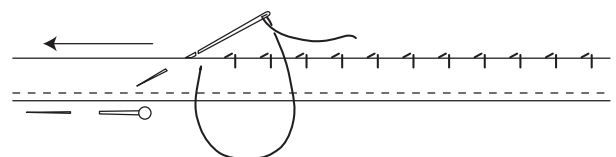


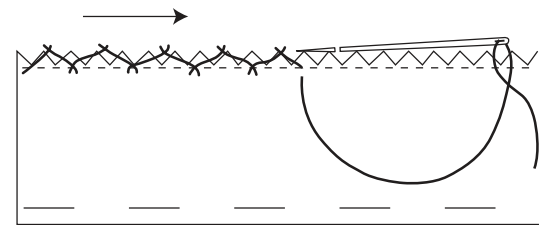
Figure 4



### Catch stitch

Stitches are made left to right with the needle pointed 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 inch over to the right. Bring needle and thread down to hem edge, and then take another tiny stitch. Keep zigzagging between garment and hem edge to secure. *Figure 5*

Figure 5



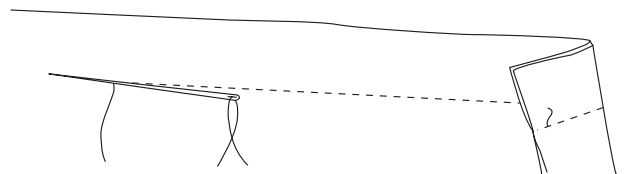
### Top Stitched Hems

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 backstitch that simulates machine type stitches.

### Backstitch

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 inch onto previous stitching. *Figure 6*

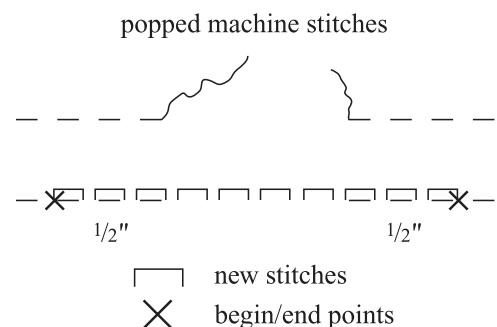
Figure 6



### 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 inch back from the popped hem area (see X on diagram) and then stitch onto previous stitching for another 1/2 inch. Backstitch 2 to 3 stitches when beginning and ending machine stitches. *Figure 7*

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.

## HANDOUT D — SEWING ON A BUTTON

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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 replace 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:	Button Types
Thread to match the fabric	2 or 4 hole, or shank button
Needle	
Toothpick	
Straight pins	
Pencil	
Ruler	
Scissors	



### Threading the Needle

Wind off of the spool approximately 30 inches 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 inch of the knot. Repeat the process if the knot pulls through the fabric.

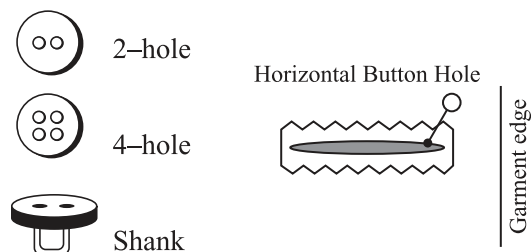
### Buttons

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.

## Where Do You Attach It?

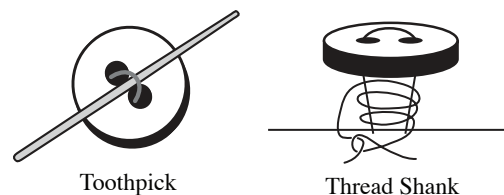
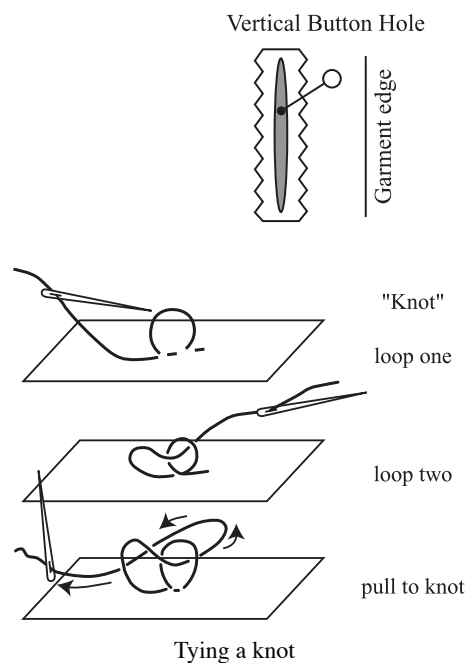
To locate the placement of a missing button, look for the threads left in the garment. If these are missing, the location can be found again by:

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 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.









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