



National 4-H Curriculum
BU-08062

Refine Design



Name _____

County _____

Sewing Project Activity Guide



Note to the Project Helper

Thank you for helping young people develop and share their creative abilities in the sewing and textiles area. Your interest, enthusiasm, and time will help to make these experiences positive and successful.

By completing the activities in this guide, youth will:

- Gain project knowledge and skills related to beginning construction and care of textile items,
- Gain knowledge related to apparel and textile industry careers,
- Gain knowledge of technology use in the apparel and textile industry, and
- Learn how to apply their newly gained knowledge and skill to provide service to individuals and community support groups.

Sewing Expressions Series

There are three youth guides in this series. The guides include sections on creating, caring, teching, futuring and serving. The creating section is designed to assist youth in gaining experience in sewing; the maintaining section provides an opportunity for youth to experience caring for textile items; teching provides experience in technology applications in the apparel and textile industry; futuring provides experiences to give participants a sampling of potential careers; and serving provides youth an opportunity to use the knowledge and skills they have experienced to help others. Participants may work at the level most appropriate for them no matter what their age.

The activities are designed to meet the Family and Consumer Sciences Education National Educational Standards for Textiles and Apparel. The "Success Indicator" listed for each activity is an excellent way to evaluate the youth's success.

In each activity the young person has an opportunity to learn by doing before being told or shown how. Your challenge as a project helper is to "sit on your hands" while the youth explores and learns, even when things don't seem to work the way you expected. Listen to the youth as they consider the questions and draw conclusions. At times the activity may call for you to be a resource person for content or ideas.

The fourth publication in this series, *Group Activity Helper's Guide*, provides additional learn-by-doing activities that can be adapted for families, classrooms, after school programs, or other groups. You will find helpful hints about characteristics of youth, life skill development, teaching experientially, as well as club meeting ideas.



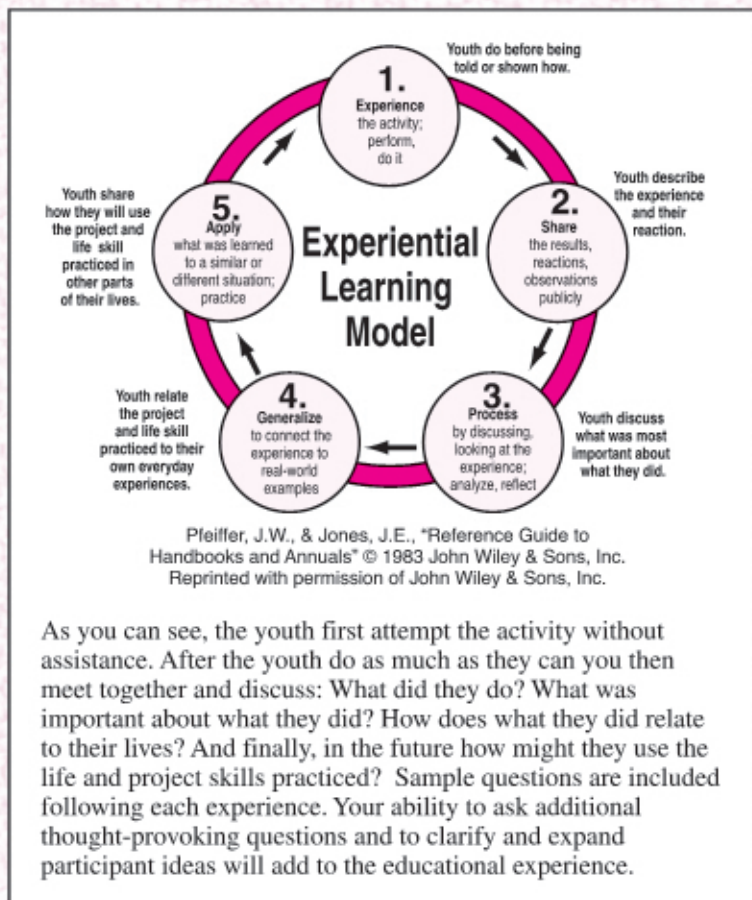
Sewing Project Online Website

The 4-H clothing and textiles web site serves as a supplement to this project. Visit www.4-H.org/curriculum/sewing.

Your Role

- Become familiar with the material in this activity guide and the *Helper's Guide*.
- Support youth in their efforts to set goals and complete each achievement program.
- Serve as a resource person to help connect youth with the community, resource materials and others who are knowledgeable about the project.
- Help youth learn to evaluate their work and progress.
- Encourage the use of the experiential learning cycle.

Many techniques used in sewing are appropriate for this project. There is NOT a 4-H way of construction. Youth need to be able to communicate why an application was used and to understand that other techniques may also be appropriate, depending upon the fabric, pattern and equipment.



Acknowledgements

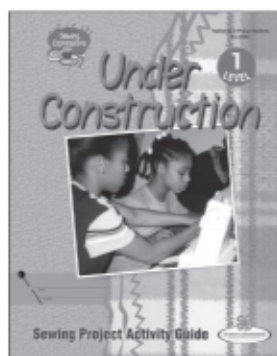
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Under Construction



Level 1 BU- 08060

- Chapter 1: Creating
Tools of the Trade
Get to Know Your Machine
Threading Your Way
Serge the Super Highway
On the Straight
To Ravel or Not to Ravel
How Do You Measure Up?
Pattern Particulars
Curves Ahead
- Chapter 2: Maintaining
Sort It Out
Spot Check
- Chapter 3: Teching
Sewing Techno Savvy
- Chapter 4: Futuring
Fiber Detective
- Chapter 5: Serving
Bags to Share

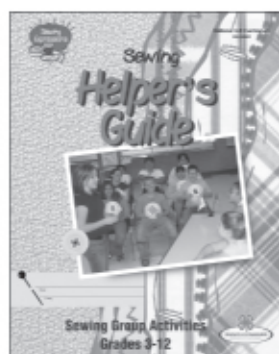
Fashion Forward



Level 2 BU- 08061

- Chapter 1: Creating
Fabric Construction Facts
Fiber Facts
To Dye or Not To Dye
Patch Pocket Pizzazz
To Zip or Button
Perfect Fit
Blue Dreams in Denim
What's That Tool?
Taming the Serger
- Chapter 2: Maintaining
Tag! You're It!
Laundry Lingo
- Chapter 3: Teching
Shop the 'Net
- Chapter 4: Futuring
Sewing Business Cents
- Chapter 5: Serving
Sharing Polar Fleece Fun

Sewing Helper's Guide



Helper's BU- 08063

- Youth Learning Characteristics
Developing Life Skills
Teaching and Learning
Experientially
- Chapter 1: Guide Sheets
Let's Make Plans
Sewing Skillathon Excitement
Fabric Scavenger Hunt
Conducting a Sewing Quiz Bowl
Tic Tac Sew
- Chapter 2: Embellishments
Fiber Bingo
How Fast Can You Get Wet?
Fun with Sewing Pyramid
- Chapter 3: Weaving Patterns
Bust Your Buttons
Be a Wise Judge
Experimenting with Textiles
Clothing Exchange
The Laundry Game
- Sewing Project Meeting Ideas
Sewing Expressions Answer Key



Refine Design

Sewing Kit

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Welcome to *Refine Design*

R*efine Design* is Level 3, Advanced, of the *Sewing Expressions* series. *Sewing Expressions* offers you challenges and opportunities to explore a wide range of activities in the sewing and textiles areas. You'll have fun expanding your interests and working individually or in groups to complete activities and projects.

An achievement program is included to guide your efforts and provide you an opportunity to be recognized for meeting your goals.

Sewing Expressions is divided into three project levels including

- Level 1, Beginner, *Under Construction*
- Level 2, Intermediate, *Fashion Forward*;
- Level 3, Advanced, *Refine Design*

Sewing Project Guidelines

- Do at least seven *Refine Design* and/or More Challenges activities each year.
- Complete this project level within three years.
- Keep the planning guide up to date by setting project goals and recording highlights.

Youth Activity Guide

The activities will challenge you to explore areas of the project you perhaps haven't experienced before. Do your best to complete each activity and answer the questions. Work with your helper to complete each learning experience. You may need additional resources to do some of the activities. Sewing magazines, books, videotapes, Internet sites, and information from fabric stores and manufacturers are good sources. The library will also have resources to help you. Supplemental and reference materials for the Sewing and Textiles project can be found on the Sewing Project Online website at: **www.4-H.org/curriculum/sewing**.

Remember, this is your own personal project activity guide. As you complete the activities, answer the questions, and record your project highlights, you'll realize how much you have accomplished in the project. Have fun!

Your Project Helper

The choice is yours! The person you choose to be your project helper needs to be willing to support your efforts to complete *Refine Design*. Your helper will meet with you to help you set goals, plan activities, suggest resources, talk over each activity and date and initial your achievement program each time you have completed an activity. Write the name and phone number of your helper here.

Helper's name: _____

Phone: _____

E-mail: _____

Planning Guide

My Project Goals

1. _____
2. _____
3. _____

Project Highlights

Your sewing experiences are worth remembering! Write down the important and exciting things you do and learn, along with the date.

Before and After—What do you know?

Here is a great way to see if you learn something new and develop important skills in this project. Before you start doing the activities in this guide, indicate what you know NOW. Then when you complete the *Refine Design* Advancement Program, indicate what you know AFTER. You may be surprised what you learned. Share the results with your helper. Begin each skill with the words “*I know how to...*” then circle 1 (to a great extent), 2 (somewhat) or 3 (not at all).

<i>Refine Design</i>	<i>Before</i>	<i>After</i>
Identify and use five specialized sewing tools or equipment	1 2 3	1 2 3
Combine two or more patterns to create a design	1 2 3	1 2 3
Use five new outdoor wear sewing skills	1 2 3	1 2 3
Use five new tailoring skills	1 2 3	1 2 3
Use three new advanced sewing skills	1 2 3	1 2 3
Design and embellish a garment	1 2 3	1 2 3
Sew with fabric containing spandex	1 2 3	1 2 3
Write and follow directions	1 2 3	1 2 3
Identify three new laundry products	1 2 3	1 2 3
Identify clothing styles that enhance figures	1 2 3	1 2 3
Use a computer and printer to print on fabric	1 2 3	1 2 3
Research one apparel and textile career	1 2 3	1 2 3
Plan and conduct a fashion revue	1 2 3	1 2 3
Plan and organize a community service sewing project	1 2 3	1 2 3

More Challenges

[illegible]

Date_____ Helper's initials_____

Date_____ Helper's initials_____

1. Do at least seven of the required and optional activities each project year.
2. Complete at least 21 activities/learning experiences/challenges within three years to complete this level.
3. Have your project helper date and initial each activity as you complete it.

<i>Activities</i>	Date completed	Helper's initials
Chapter 1: Creating		
Sleuthing Tools of the Trade		
Combine and Design		
“Out”rageous		
Tailored Treasures		
Embellish Your Ensembles		
Stretchables		
Follow the Weaving Pattern		
Ultimate Makeover-Bedroom Edition		
Chapter 2: Maintaining		
Hold the Color, but Take the Wrinkles		
Chapter 3: Teching		
Click On!		
Print to Fabric, not Paper		
Chapter 4: Futuring		
Designing Your Future		
Chapter 5: Serving		
Style is on Parade		
Share Some Warmth		



Refine Design

Completion Certificate

I certify that

has completed all the requirements in the
Refine Design Achievement Program.

Helper's signature _____

Date _____



Sleuthing Tools of the Trade

Now that you're familiar with sewing machines, sergers, irons and a few other sewing tools, how about test driving some different machines? You can do some sleuthing—and there's a lot to do with all the new technology in the home sewing industry! On this mission, you will learn about tools that you might or might not have used before—learn why and when you would use different tools, equipment or machines.



Cutting Edge

Create a “shopping list” of at least 5 sewing tools, machines or pieces of equipment you have not used before or have used very little. You can search the Internet, sewing books and catalogs as well as ask your helper for ideas. Be creative with your list. Identify sewing tools and/or equipment you have not used and would like to investigate and list them below. Next, go to area fabric shops, sewing machine dealers, dressmaker shops and other businesses that carry sewing tools/equipment.

Complete the table for at least five tools/equipment. Research each of the items, finding basic information about them, including features, intended use, where the item can be purchased and the price.

Sewing Project Skill: Investigating new and different tools

Life Skill: Decision making

Educational Standard:
Demonstrate skills needed to produce textile products

Success Indicator:
Investigate, operate and analyze specialized tools.



Item	Features Intended Use	Store or Business	Price	Would Purchase



Sewing Circle

Dyeing to Know

- If you could purchase only one of the items you found, which one would you purchase and why?
- Were you excited, intimidated, or nervous while trying these new tools?

Unravel What Is Important

- When would the benefits of a particular tool/equipment be worth the price of the tool?
- What other information would influence your decision to purchase an item?

Fit It to Your Life

- Can you think of times when you might use some of these tools?

Pin Down What You Have Learned

- How does gathering information about an item effect your decision about purchasing it?

Did you know?

An industrial straight stitch sewing machine can sew more than 5000 stitches per minute! In contrast, a home sewing/embroidery machine sews about 600-800 stitches per minute, in embroidery mode.

Sewing Sense

Sewing Equipment

Good equipment and tools can make your sewing experiences more fun and produce professional results. For example, a good heavy steam iron is as valuable as a sewing machine.

Costumers, designers, dressmakers and other professionals often use industrial machines. Many industrial machines sew only one stitch, but sew at a speed much faster than the standard home sewing machine. Apparel manufacturers have very specialized machines, like machines that make only buttonholes or stitch a blind hem. Many dressmakers, dry cleaners and alteration shops have a blind hem machine because they frequently hem slacks and other clothing items.

Quilting machines can make speedy work of the quilting process and owning a quilting machine can lead to some extra income!



A tailor's ham and a good steam iron are essential for tailoring.

More Challenges

1. Select and purchase one new sewing tool to use on your next sewing project.
2. Design and make a poster showing some new sewing tools/equipment and how they can be used.

Combine and Design

When you are after a special look and can't find the right pattern you may be able to combine patterns to achieve the look you want. In this activity you will make a plan to create your own unique new design by combining two or more patterns.



Cutting Edge

Engage your creative side and sketch a design of the garment you have in mind. To jumpstart your creative ideas, look through fashion magazines, apparel catalogs or browse the Internet or ready-to-wear garments when you are shopping. Next develop your plan, then look through your existing patterns or visit a fabric store and select patterns that will complement the design you have in mind. It can be as simple as changing the sleeve style on a blouse, or creating a dress with a skirt from one pattern and a top from another.

Sewing Project Skill: Designing a garment using more than one pattern

Life Skill: Planning and organizing

Educational Standard: Demonstrate apparel and textiles design skills

Success Indicator: Create a design by combining patterns.



Sketch your garment design:

List the pattern company and design feature from each pattern you used to create your design.

Pattern company	Pattern number	Style feature to be used



Sewing Circle

Dyeing to Know

- What are some of the advantages of designing your own pattern?

Unravel What Is Important

- Why is it important to know how to change the design of a pattern?

Fit It to Your Life

- How can a plan help you alter or make changes to other types of items?

Pin Down What You Have Learned

- Why is it important to start with a plan before changing a pattern?



I design my own clothing by combining patterns.

Acknowledgement: Activity written by Stephanie W. Morsch, Sharlene Woffinden, and Ronda Olsen.

Sewing Sense

Merging Patterns

When you start to merge together different pattern pieces from two or more patterns for your own design, keep the following in mind. It is easier to use patterns from the same pattern company and the same pattern category, like Miss, Junior, Women, Men, etc. If using two size 10 patterns from different companies, check the bust, waist and hip measurements on the sizing charts and also on the pattern piece to see if the measurements are the same. Different pattern companies may use different sizing charts and/or ease to create their patterns.

If, for example, you want to change the sleeve design in a blouse pattern, begin by choosing a pattern that already fits. You will need the pattern pieces for the front and back of the selected pattern plus the front and back as well as the sleeve pattern from the desired design. Lay the pattern pieces, one on top of the other, placing the pattern with the desired arm hole (armscye) and sleeve design on the top, matching the shoulder and side seams. Observe where the patterns do not match and where new design lines will be created. Combine the two patterns by meshing the cutting lines of the two patterns. Make sure that you are drafting the pattern size you need. Draw a new pattern piece for your blouse design on drafting paper.

To determine if your new design will fit, it may be a good idea to cut out the new pattern pieces from old scraps of fabric or an old sheet and sew them together before cutting out your garment fabric. This will give you a good idea of what your garment will look like and also let you know if you need to go back to the drawing board.

More Challenges

1. When looking at patterns, list the characteristics you should consider before you would make changes to it.
2. Using a computer or Internet program create a personalized pattern. Use the personalized pattern to construct a garment.

"Out"rageous!

Constructing outdoor apparel and accessories adds a new dimension to your sewing skills. Some points to consider when choosing a project for this activity are selecting an appropriate fabric, whether to purchase a project kit and using appropriate seam finishes. Outdoor apparel and accessories also open the door to exciting closures not normally used on everyday apparel.



Cutting Edge

Develop a plan to make one large or two small outdoor apparel or accessory items. You might start by window shopping in a local sporting goods store for new ideas—backpacks, duffel bags, snowboard or ski bags, ski/snowboard jackets, snow suits, polar fleece jackets/vests, raingear, hats, gaiters—there are hundreds of items to choose from! Or if you already have ideas, start planning by selecting appropriate outdoor fabrics. Record your ideas below.

- Determine five new skills you want to learn and where they would be used in your project. Skills might include (but aren't limited to) exposed zipper application, flat-felled seams, topstitched seams, seared seam finish, grommets, corded buttonholes, snap tape, lining application, quilting—or many others! Add this to your plan.
- Decide whether you should buy a kit to make your project, use a purchased pattern or copy an existing item by making your own pattern. Add this to your plan.

As you develop your plan, record the date you completed each step and what you learned or did to complete it.

After completing your project, evaluate it, looking at the overall appearance and sturdiness.

Sewing Project Skill: Construction techniques with outdoor fabrics

Life Skill: Planning and organizing

Educational Standard:
Demonstrate skills needed to produce textile products

Success Indicator:
Learn five new sewing techniques.

Pin-Up
Draw or attach a picture of your finished project here.



Step	Project Plan	Date Completed	What I did or learned
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			



Sewing Circle

Dyeing to Know

- How did you come up with the ideas for your project?
- What resources made your project easier to complete?

Unravel What Is Important

- What special sewing skills did you learn to complete your project?
- How would you plan differently if you were to make this item again?

Fit It to Your Life

- On what other items might you use these new sewing skills?

Pin Down What You Have Learned

- Why is it important to record when you meet a goal in completing a plan?

Did you know?

Down-filled items can be washed by hand or by machine on the gentle or delicate cycle, using mild soap or detergent. Be sure to rinse thoroughly and dry on low heat. Adding a few bath towels to the dryer helps to absorb the moisture and adding a pair of tennis shoes helps to "fluff" the down.

Acknowledgement: Activity written by Kim Monk.

Sewing Sense

Outdoor Fabrics

Fabrics for outdoor wear or accessories need to be warm, durable, strong, and resistant to wind, water, and moisture. Some outdoor fabrics might be lightweight, like nylon supplex, while others might be heavy and dense, like a woolen. Nylons are often used for backpacks, storage bags or luggage. Often nylon is coated with a water repellent finish. These fabrics do not breathe and are uncomfortable as apparel garments. While wool is warm, it requires special sewing techniques. Quilted fabrics consist of two outer layers of fabric, with an inner layer of batting or filling. This makes them especially warm for jackets or coats. Fleece is popular in outdoor wear—it is inexpensive, warm, lightweight, easy to sew, and available in lots of colors and patterns. Because fleece is a knit, it is easy to use for apparel, but not appropriate for storage items like ski bags or backpacks.

When using new fabrics, it's a good plan to make test seams including all layers of fabrics and insulations. Try different sizes of needles (size 14–16 is common), increase stitch length and use heavy-duty thread. Depending on the fabric, you might need to loosen the presser foot pressure and upper thread tension to get even feeding and a balanced stitch.

Fleece vests are warm, yet light weight and easy to sew.



More Challenges

1. If you used a kit for this project, try making something without a kit. If you didn't use a kit, try using one.
2. Compare a ready-to-wear (RTW) (purchased) item with the item you made. Which item is better constructed? What would your item cost to purchase? What did it cost you to make your item?
3. Do a comparison of insulations available for outdoor apparel and sleeping bags.
4. Make an item for another person (a snowsuit for a child, for example).