



National 4-H Curriculum
BU-08060



Under Construction



Name _____

County _____

Sewing Project Activity Guide



REVIEWED & RECOMMENDED
National 4-H Curriculum

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.



Acknowledgements

2004 Sewing Design Team: This rewrite of the four sewing and textile guides was accomplished by the 4-H Sewing and Textiles Design Team comprised of Karen Biers, UT, Coordinator; Carla Lee, UT, Liaison; Sharlene Woffinden, ID; Ronda Olsen, UT; Debra Proctor, UT; Tara Andrews, MT; Bernice Mason, MT; Kim M. Monk, ID; Stephanie Morsch, CO; Lynda Parson, NE; Ann A. Berry, LA; Bridgette Sloan, OH; Suzie Brown, NE; Mary Forster, OH; Ila Erickson, 4-H Youth Representative.

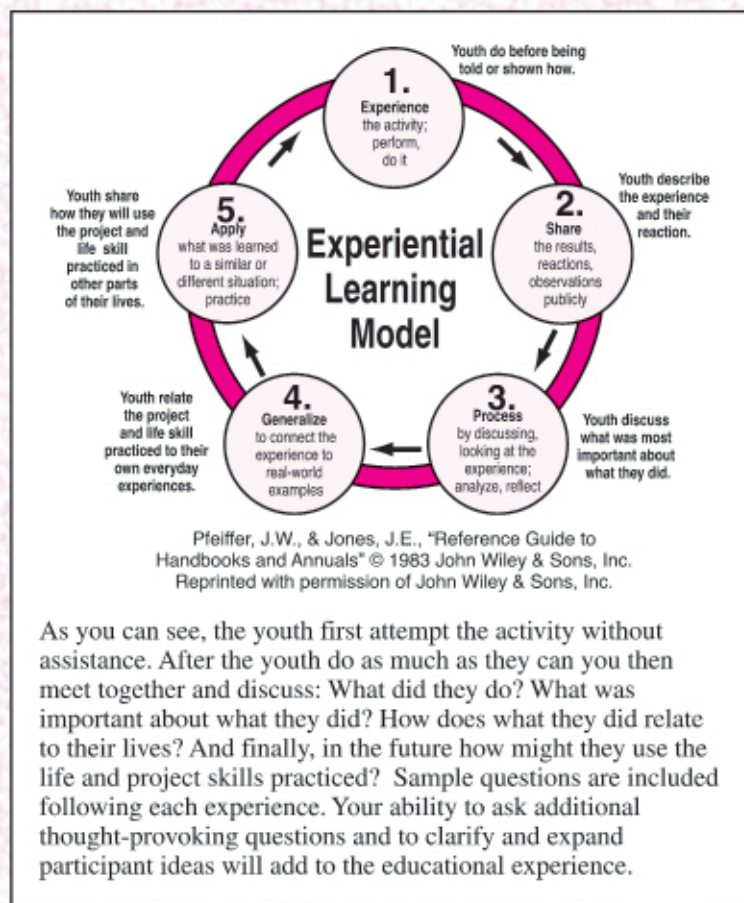
Sewing Project Online Website

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.



Design and Production: Northern Design Group, MN.

Writer/Editor: Karen Biers, UT

Financial Support: Funding was provided by National 4-H Curriculum



Level 2 BU- 08060

Fashion Forward

- 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



Under Construction

Sewing Kit

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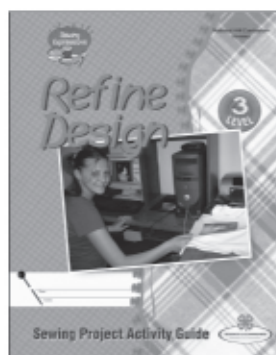
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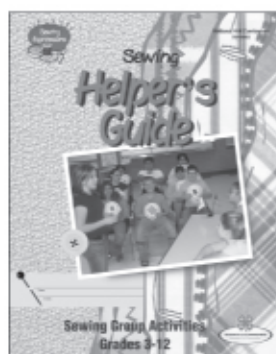
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Level 3 BU- 08061

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 Tailored Treasures
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 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 Fabric, Not Paper
- Chapter 4: Futuring**
 Designing Your Future
- Chapter 5: Serving**
 Style is on Parade!
 Share Some Warmth



Helper's BU- 08062

Sewing Helper's Guide

- 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



Welcome to *Under Construction*

U*nder Construction* is Level 1 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 areas including Level 1, *Beginner, Under Construction*; Level 2, *Intermediate, Fashion Forward*; Level 3, *Advanced, Refine Design*.

Sewing Project Guidelines

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

Under Construction 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 explore each learning experience. You may need additional resources to do some of the activities. Sewing magazines, books, video tapes, 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 page 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. 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 *Under Construction*. 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 complete an activity. Write the name, phone number and email address of your helper here.

Helper's name: _____

Phone: _____

E-mail: _____

Planning Guide

My Project Goals

My most important *Under Construction* goals are:

1. _____
2. _____
3. _____

Project Highlights

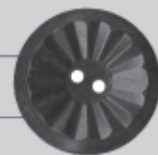
Your sewing experiences are worth remembering! Write down the important and exciting things you do and learn, along with the date.

Before and After—What do you know?

Here's an easy way to tell if you learned something new and developed important project skills.

BEFORE you start doing the activities in this guide, indicate what you know now, then indicate what you know **AFTER** you complete *Under Construction* Achievement Program. You may be surprised how much you learned! Share the results with your helper. Begin each statement with the words "*I know how to...*" then circle **1** (not at all), **2** (somewhat) or **3** (to a great extent).

<i>Under Construction</i>	<i>Before</i>	<i>After</i>
Identify at least 10 basic sewing tools	1 2 3	1 2 3
Identify sewing machine parts	1 2 3	1 2 3
Stitch on a serger	1 2 3	1 2 3
Thread a sewing machine	1 2 3	1 2 3
Identify lengthwise and crosswise grain of fabric	1 2 3	1 2 3
Identify types of seam finishes	1 2 3	1 2 3
Select my pattern size	1 2 3	1 2 3
Purchase pattern, fabric and notions	1 2 3	1 2 3
Sew and clip a curved seam	1 2 3	1 2 3
Sort clothes for laundry	1 2 3	1 2 3
Remove stains	1 2 3	1 2 3
Select a high tech sewing machine	1 2 3	1 2 3
Identify types of fibers	1 2 3	1 2 3
Donate a sewn product	1 2 3	1 2 3



Achievement Program

More Challenges

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

Optional activities are included under the “More Challenges” heading. Select and complete any of them. Record the activity and date below and have your helper, leader, or parent initial each one. If you’ve thought of some not listed, write those in too.

[illegible]

Describe your own activity here:

Date_____ Helper's initials_____

Describe your own activity here:

Date _____ Helper's initials _____

<i>Activities</i>	Date completed	Helper's initials
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		



Under Construction Completion Certificate

I certify that

has completed all the requirements in the
Under Construction Achievement Program.

Helper's signature _____

Date _____



Tools of the Trade

You can have a fun adventure learning to sew. Sewing requires tools that you may never have used before such as a seam gauge and a pressing ham. If you have the right tools and know how to use them, sewing your first item will be easier. You will want to have a place where you keep your sewing tools so that they are easy to find when you need them.



Some of the basic tools you need to begin your sewing adventure are listed in the column under tools. Match the tools with the descriptions. Write the letter of the description on the line by the tool that fits the description.

Sewing Project Skill: Knowledge of basic sewing tools and their uses

Life Skill: Decision making

Educational Standard:
Demonstrate skills needed to produce textile products

Success Indicator:
Identify basic sewing tools and their purpose.

Pin-Up Tape
a photo of you and
your sewing kit here.



Selecting basic tools
for a sewing kit.

Sewing Tool Matching Game

Tools

- _____ 1. pin cushion
- _____ 2. seam ripper
- _____ 3. hem (seam) gauge
- _____ 4. tracing paper and wheel
- _____ 5. shears
- _____ 6. chalk
- _____ 7. tape measure
- _____ 8. pressing ham
- _____ 9. pins
- _____ 10. scissors
- _____ 11. press cloth
- _____ 12. hand needles
- _____ 13. marking pens

Description

- A. Used mainly for cutting fabric, one handle is larger than the other.
- B. Used for hand sewing, the smaller the size number the larger the needle.
- C. Used for removing stitches, has a sharp point that cuts thread.
- D. Comes with blue or purple ink and will either wash out or disappear with time.
- E. Used to press curved areas.
- F. Used to store pins.
- G. Both handles are the same size, used to trim threads or trim seams.
- H. A piece of lightweight fabric placed between the iron and your fabric.
- I. Usually 6 inches long and used for smaller measuring jobs.
- J. Long glass headed ones are the easiest to use.
- K. Used to mark patterns, wheels have pointed edges.
- L. Used for larger measurements usually 60 inches long.
- M. Used to mark pattern markings on the wrong side of fabric.

Visit a store or select a website that features sewing tools. List tools you would like to have.

Make a sewing kit with basic sewing tools. A basket, sewing box, clear plastic box or cardboard box can hold your supplies. List your current tools.



Sewing Circle

Dyeing to Know

- What tools are absolutely necessary to complete a sewing project?
- What other tools did you find that are not on the list of tools?

Unravel What Is Important

What tools would you like to have?

Fit It to Your Life

- What other important tools do you use at school or home?

Pin Down What You Have Learned

- What things would you consider when selecting new tools?

Sewing Tips

Correct tools are important for any project, especially sewing. As a beginning sewer you may want to borrow the sewing tools you need from family or friends. As you use them and explore what's available, you will be able to select the tools best suited to you and your sewing needs. Keep all your sewing supplies together.

Sewing Sense

Sharp dressmaker shears are indispensable for a sewing project. The lower blade of these shears is designed to lie flat on the fabric. This feature provides stability which helps you to cut straighter and more smoothly. When cutting long, straight lines, use the full length of the shear's blades. Using the full length will give you smoother cutting lines. When you use only the first part of the blades to cut fabric, the resulting edge is choppy and irregular. A rotary cutter is also used for cutting fabric. Beginning sewers need to practice safety measures if they use a rotary cutter as the blade can be extremely sharp. If you are using a rotary cutter to cut a straight line, use a straight edge to guide the cutter. A cutting mat is used with a rotary cutter.

Pins and Needles

Straight pins come in a variety of lengths. Pins with glass heads will be easier for small hands to use. Hand sewing needles are available in ten different sizes. Numbers from one to ten indicate the needle size with number one (1) indicating a very coarse needle and number ten (10) indicating a very fine needle. The more common types of hand needles include: sharps—medium length needles used for general sewing; embroidery/crewel—are like sharps but have a longer eye; and betweens—shorter needles that are good for detailed work.

Measuring Tools

A good tape measure is 60 inches long with metal ends. It will not stretch and will have inches clearly marked on one side and centimeters on the other side. A hem/seam gauge is six inches long with the inches clearly marked.

More Challenges

1. Select a sewing tool you haven't used before and learn how to use it.
2. Practice threading a hand sewing needle.
3. Identify four different marking tools. What are the advantages and disadvantages of each of the identified tools?

Get to Know Your Machine

As you continue with your sewing adventure, you will learn how to operate a sewing machine. Begin this adventure by learning the parts of the sewing machine, and what each does. Once you know the basic parts of the machine you and your machine, will work as a “team” to complete some fun and challenging projects. You and your machine will become old friends.



The sewing machine will be an important part of your *Sewing Expressions* project. In the space below draw a picture of a sewing machine. If you have a sewing machine in your home, you may want to look at it to help you draw your machine. You can also search the Internet for pictures of sewing machines. After you have drawn your machine, label the machine parts using the list provided.

Sewing Project Skill: Identifying parts of the sewing machine and their function

Life Skill: Learning to learn

Educational Standard:
Demonstrate skills needed to produce textile products

Success Indicator:
Identify parts of a sewing machine and their purpose.



Machine Parts and Purposes

Power switch – Turns the machine on and off.

Hand wheel – You can move your needle up and down with this.

Spool pin – Holds the spool of thread.

Bobbin winder – Holds the bobbin while the thread is wound from the spool to the bobbin.

Stitch length regulator – Determines how long each stitch will be.

Stitch width regulator – Determines how wide the stitches will be.

Thread take-up lever – Moves up and down with the needles.

Thread guides – Thread guides direct the thread from the spool to the needle.

Upper tension regulator – Controls the tension (tightness of the upper thread).

Presser foot lifter – Raises and lowers the presser foot.

Presser foot – Holds the fabric in place during sewing.

Throat plate – A metal plate in the base of the machine with holes for the needle and feed dogs.

Feed dogs – Holds the fabric tight against the presser foot and feeds fabric through the machine.

Needle – Carries the thread through the fabric and joins with the bobbin thread to create a stitch.

Bobbin case/bobbin – Holds the lower thread.

Foot control – Controls how fast or slow the machine sews.

Reverse lever – Used to sew backwards or to backstitch.

My Machine



Sewing Circle

Dyeing to Know

- Why do you think it is important to know the parts of the sewing machine?

Unravel What Is Important

- Why is it important to know what the parts of the sewing machine do?

Fit It to Your Life

- What are some other times when it is important to learn about a machine before using it?

Pin Down What You Have Learned

- Tell a friend or helper about three important parts of the sewing machine.



To the Point

It is not important what type of machine you have, but it is very important that you understand how to operate it. Time spent getting acquainted with your machine will be a good investment in your sewing success. Make labels of sewing machine parts, cut them out and tape them to the corresponding part of your sewing machine.

Needles

A needle has several parts. The shank is the part that is inserted into the machine. The rest of the needle is called the blade. The blade is composed of the shoulder, a tapered part under the shank; the scarf, the indentation on the back just above the eye; the groove on the front, which protects the thread as it passes through the fabric; eye, an opening through which the thread passes; and the point.

Change your sewing machine needle often. The use of a sharp needle in your sewing machine will prevent damage to your fabric and thread. Sewing machine needles come in various sizes and types. Machine needles range from size 8/60 to size 18/110. The numbering system for machine needles depends on the brand. The U.S. numbering system uses 8–18 and the European system uses 60–110. The smaller the number the finer the needle will be. The size and type needle you use is determined by the fabric that you will be sewing. The size of the eye increases the diameter of the needle.

Some standard types of sewing machine needles and their uses include:

Sharp pointed needles – used with knits and wovens

Universal needles – has a slightly rounded point, designed for woven and knit fabrics

Ball point needles – have a rounded point designed for knit fabric

Wedge needles – have a wedge shaped point designed for leather and leather type fabrics

Twin and triple needles – have two or three needles with one shank

Wing needles – designed for hem stitching

Microtex needles – a thin needle with a slim point designed for use with microfibers and silk

More Challenges

1. Now that you know the parts of your sewing machine, use your sewing machine direction guide to help you thread your sewing machine and the bobbin.
2. Visit a store or web site that sells sewing machine needles to see the types of needles available for special fabrics and sewing techniques.

Threading Your Way

Now that you know the parts of the sewing machine, you'll want to learn how to thread the machine. If you do not thread a machine properly, it will either not stitch or not stitch properly.



It's important
to thread
your sewing
machine
correctly.

Sewing Project Skill: Threading the sewing machine

Life Skill: Decision making

Educational Standard:
Demonstrate skills needed to produce textile products

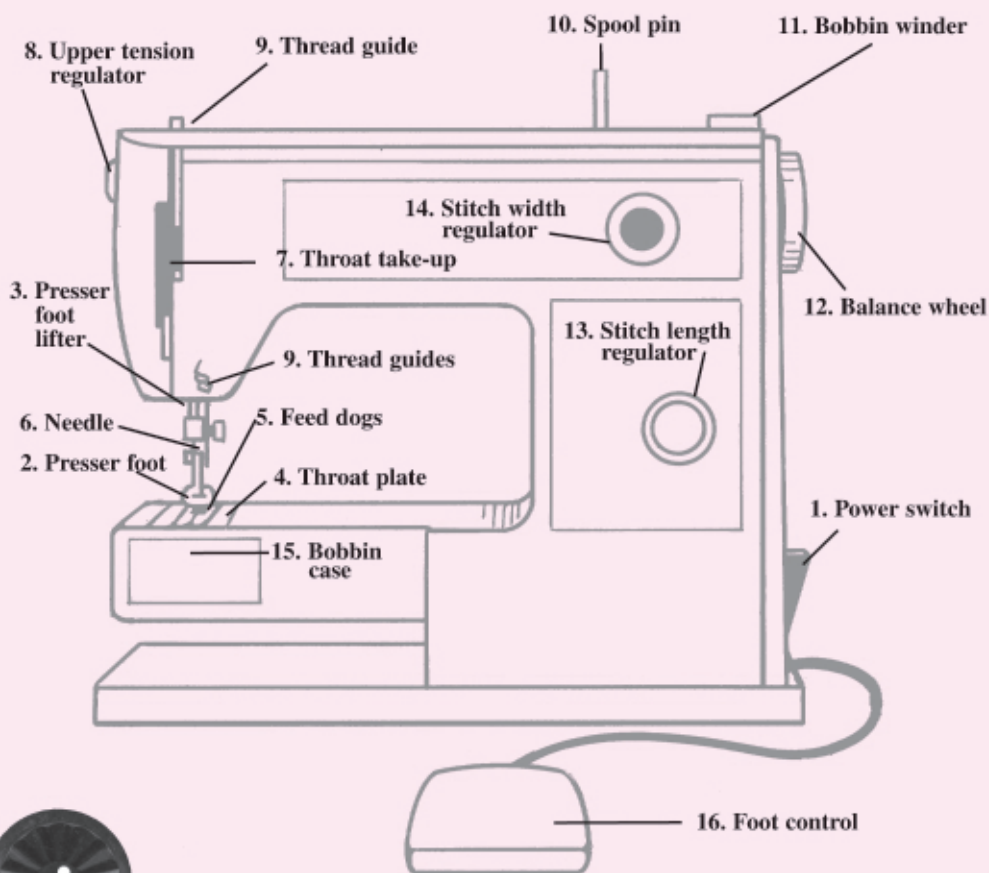
Success Indicator:
Thread a sewing machine.



Cutting Edge

In the column headed "Threading Order" write the parts of your machine in the order that it should be threaded. On the picture, draw a continuous line through the machine threading parts from the spool pin to the needle. Practice threading a machine. Directions for threading your machine are found in the owner's guidebook.

My Sewing Machine's Threading Order





Sewing Circle

Dyeing to Know

- Where did you find directions for threading your machine?

Unravel What Is Important

- Why was it helpful to have a guide book for your sewing machine?
- Besides threading information, what other information does your sewing machine guide book contain?

Fit It to Your Life

- If your machine does not have a guide book, where could you obtain one?

Pin Down What You Have Learned

- What did you learn about following directions from this activity that you can apply to another project?

Sewing Sense

Threading a Needle

Different brands of sewing machines have essentially the same parts to thread but they can be arranged differently.

Make sure when you stop sewing that you move the hand wheel until the take-up lever is at the highest position. This prevents the thread from pulling out of the needle when you start sewing again.

Always thread the needle from the groove side as the thread sets in the groove as it passes through the fabric.

Bookmark

Materials needed:

- Woven fabric
- Matching and contrasting thread

Cut a rectangle 9" x 2½" from the woven fabric. Thread your machine with one of your threads. On the one thickness of fabric, stitch ¼" from the cut edge along each of the long sides (9") and 1" from the cut edge along each of the 2½" edges. Thread your machine with different color thread and stitch the length of the fabric between the 1" stitching lines. Continue changing the thread color and stitching the length of the fabric between the 1" stitching lines. You can use straight stitches or a variety of decorative stitches. When you have finished stitching, pull the threads on the outside edges of the fabric. This will make a fringe on all four sides of your bookmark.

More Challenges

There are three different projects you can make to practice threading your machine as well as learn how to straight stitch. These include two types of pillowcases and a bookmark. Directions for the bookmark are on this page. Directions for the pillowcase can be found on the Sewing Project Online website. Select at least one of the projects to complete.