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Colorado
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MJ0702
Member's Manual



4-H Heritage Arts: Knitting

ACKNOWLEDGMENTS

The Colorado State 4-H Heritage Arts committee prepared the 4-H Heritage Arts series. The committee includes: Linda Carlson, curator and lecturer, Historic Costume and Textiles, and Kathleen Williams, Extension specialist and lecturer, Design, Merchandising and Consumer Sciences Department, College of Applied Human Sciences; Carol Schneider, 4-H Extension agent, Weld County; and Sue Cummings, Extension specialist, 4-H Youth Development, Colorado State University.

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Introduction

Welcome to the 4-H Heritage Arts project. Without interested individuals, such as yourself, many historic arts and crafts would be lost with the passing of generations.

You will be given the opportunity, through the Heritage Arts project, to choose from a variety of fiber, fabric, yarn arts and crafts. The projects and activities you experience depend upon your enthusiasm and the availability of resources within your home and community.

Heritage Arts is defined as the practical skills passed down from preceding generations that were developed to provide basic family needs, such as apparel, home furnishings, or decorations. It also is defined as a traditional craft and the methods that have been maintained throughout history and passed on to others, often by observation and example.

Classes on traditional crafts are available in many communities, taught by skilled local artisans. The techniques taught often incorporate new techniques and materials with the old, traditional methods to enhance the craft.



P roject Objectives

The Heritage Arts project is designed to help you:

- Learn about a variety of historic arts and crafts.
- Create a craft that connects you to the past.
- Learn about historic influences on arts and crafts.
- Have fun learning.
- Gain skills that might lead to a home-based business.

P roject Expectations

Members are encouraged to learn about and try a variety of different historic crafts. Think of fun places in your community where you can learn more. Ask about interesting, creative artisans who are willing to share their skills with you. Take a field trip to local museums that feature historic fabric and yarn displays. Take a trip to the library and look up interesting facts about a craft that is of particular interest to you. Evaluate or judge fabric and yarn crafts and do a demonstration to share your skills with others. The more activities you do, the more you learn.

To complete your project, respond to all questions on the Heritage Arts Record. Check with your Cooperative Extension office for county fair requirements *if* you want to exhibit your project.

Textile Crafts

What is a textile craft? It is defined as any method of creating a unique design with fiber, fabric or yarn. Patchwork and applique quilting are examples of textile crafts that use fabric as the main design ingredient. Needlepoint, embroidery, crochet and weaving are textile crafts that use yarns as the design tool. All textile crafts have one thing in common—they use fibers, fabric or yarn to create a design.

With some textile crafts, it means making the fabric, such as weaving, crochet or needlepoint. With other textile crafts, an already existing fabric is changed into something quite different. Quilting and embroidery can change the appearance of a fabric to create an exciting, imaginative design.

Creating a Design

Once you decide on a heritage craft, it's time to think about the design. Many books show how to create a pleasing design. There also are many printed patterns that can be purchased. There's no better way to enjoy and understand design than to try it! Designing, like most activities, can come naturally once you understand what you are doing.

A design is really a plan—a plan for using all materials so that they look good together. To begin planning the design, examine your materials—whether they are yarns or fabrics or some other material—in a special way. For example, regardless of what materials are used, these basic ingredients are the design:

- line
- shape
- space
- texture
- color

These ingredients are called the *elements of design* and they are important to your plan because they are the visible details of a design. Without a design plan, these elements may seem haphazard or clash. Let's take a closer look at each of these elements of design.

- *Line*

Line is an element that's found everywhere around us. In a garment, lines are created by a seamline, a hem, a dart, a row of trim, a plaid or stripe. A row of embroidery stitches creates a line, as does a row of crochet stitches or the pattern in a quilt square. Some lines are straight and angular, others are curved. Some are thick and sturdy, others fine and delicate. The kind of lines used in a design will affect the character of that design.

- *Shape*

When lines are connected and overlapped, they create shapes: squares, circles, triangles, any shape imaginable. The outline of an applique is a shape, the pieces in a patchwork quilt are shapes, the outline of a garment is a shape, and so on. Just as lines create feelings, so can shapes.

- *Space*

When we talk of space, we mean the actual space an object or a design occupies. When we design, we work within a specific space; so not only must the design itself be well thought out but so must the space around it. That space might be an individual quilt square or entire quilt.

- *Texture*

Texture is the surface characteristic of an object; it may be smooth, fuzzy, soft, pebbly, scratchy, or one of many other textures. Sometimes we don't have to touch an object to know its texture—we can *see* the texture. In planning a design, texture is important to think about because each one we see has a character or feeling, just as lines and shapes do.

- *Color*

When we think of colors, we usually think of color names (or hues) like red, green, yellow or blue. We can create different feelings in a design on the colors we use together. For instance, a design in yellow and green will give you a different feeling from the same design in purple and blue. But, there are other ways we use colors to give a design the feeling we want. The way we use color *values* also can affect a design (value refers to the lightness or darkness of a hue). The same hue can have lots of different values.

Think about all the different kinds of blue (baby blue, light blue, sky blue, peacock blue, navy blue and royal blue). Value can affect the feeling of a design too. Try to visualize a design in all light colors (like lime green, pink, light blue, lemon yellow). Now visualize that same design in dark green, navy blue, dark red, and gold. Does it seem different? How about the same design in lime green and navy blue? Does it seem different in style? The *intensity* of the hues we use in a design also affect the feeling we get from it. Intensity refers to the brightness or dullness of a color. Imagine a design in all bright colors—usually a design made of bright colors is more than our eyes can take! So, use bright colors sparingly!

Evaluate Your Plan—Pattern to Follow

Take a look at the materials you plan to work with—fibers, yarns, fabrics, or threads. What kind of feeling do you want to create with your design? Do the materials create that feeling in their textures and colors? Can you create the kinds of lines and shapes you want with your materials? Are the materials suitable for the space in which you've chosen to create? If you can say "yes" to these questions, you're on your way to a well-designed piece.

But it doesn't stop there. Because even with all the right materials together, designers still need some guidelines on *how* to use them together. You can think of these guidelines as a recipe for deciding just how much of each ingredient (colors, textures, lines, and other elements) to use and where to add them. These guidelines are called principles of design.

Principles of Design

- *Proportion*

Proportion is the relationship of all the parts of a design to each other and to the whole garment or article. Each part needs to be in proportion to the rest of the design. No part should overpower the others. If a garment does not have proportion, one part of the design might be too big for the rest of the design. Or, the design may be too big or too small to look good on the garment, or, there may be too much bright, shiny color that overpowers the other colors. Or, if the design is the entire garment or article, it may lack proportion because it is too overpowering for the person wearing it, or the decor in which it will be used.

- *Balance*

Balance is a feeling of steadiness, of everything in the design looking like it belongs. Balance can be formal (each side of the center is identical) or informal (the sides are different, but “weigh” the same).

- *Emphasis*

Emphasis is the creation of a center of interest. Without the center of interest, a design may seem cluttered and busy, or boring and uninteresting. If a design is not well-planned and is missing emphasis, it may be cluttered with too many colors, different textures, different lines, shapes or sizes. Or, there may not be sufficient contrast to attract attention.

- *Rhythm*

When we look at a design, the eye follows a certain route around the design. It notices differences in lines, shapes, textures, colors, and spaces. The route the eye follows is known as rhythm. In a well-planned design, the eye is led from one to another to the point of emphasis. That rhythm is created in a design by repeating something throughout the design—color, texture, shape, or size. If an item misses rhythm, it may have too many unrelated parts—too many unrelated colors or textures, shapes, lines or sizes. Or, the design may be placed so that it is spotty or scattered and doesn't seem to fit together.

- *Unity*

When we say that a design has unity, we mean that it is complete. Unity is the all the materials fitting together in a pleasing combination. If unity is missing, the characters of colors, textures, lines, shapes and spaces are not compatible, or there may not be a central theme.

Inspiration Sources

Now that you have learned something about a well-planned design, it's time to begin thinking about developing your *own* designs. How do you start?

Actually, there are several ways to begin. One of them is to become aware of the design of the objects around us. Take a good look; there are examples everywhere! Look at the grain of the wood on a table top. What kind of lines or shapes are created? How does the rhythm in the grain move your eye over the design? Can you create a similar design—perhaps with weaving or needlepoint or with embroidery?

There are many places to get ideas. Look outside at the patches of grass for ideas on shapes and colors, look at the sunsets and clouds for shapes and colors, or the cracks in sidewalks, the frost on windows, the bark on trees. Everywhere you look, there are ideas for colors and textures, shapes and lines. Design examples aren't limited to nature. Look at designs in things around the house like baskets or pictures. Perhaps there's a design on pottery that you'd like to try in embroidery, or the shape of an old bottle gives you an idea for an applique. You can find ideas in magazines, wallpaper and comic books. There are ideas everywhere if you'll just use a little imagination!

Doodle on paper to develop and crystallize a design, or try arranging yarns or scraps of fabric. Try cutting out shapes from construction paper to experiment with a design. It does not matter how, but it is important to plan a design first!

The designer whose work shows fine quality, adapts and stylizes a design to suit the materials used. A designer does not attempt to imitate real objects, such as flowers using thread. Instead, if a flower idea is chosen as a theme for the design, the designer alters it to suit the shape of the article, its purpose and the limitations of materials and tools.

Resources

There are lots of good sources to help you with the "How-to's" of the textile crafts. Your Cooperative Extension agent can help you locate commercial leaflets available for 4-H members on specific textile crafts. You may want to supplement the leaflets with films and slides. Some are available through your county Cooperative Extension office.

Your talents are an excellent resource for the club. Share your know-how and special interests to help others. Bring the tools and let everyone experiment. Bring in others from the community to share their craft knowledge. A local craft or fabric store may work with you or help you contact someone with an interest in a specific textile craft. Members may decide to make a sampler, shawl, handkerchiefs, or monograms utilizing the various techniques.

Libraries can be an excellent source of information. You can broaden your knowledge of why and how heritage crafts began by reading through historic publications. Magazines are also a terrific source of ideas. Internet web pages provide lots of interesting information as well. Perhaps you will want to clip and file ideas to share and talk about. There also are many craft magazines and pattern books that can be good sources too. Craft Organizations and Councils often provide specific information that may be helpful. Check with your county Cooperative Extension office, library or craft store for contact information.

Sharing What You Have Learned

Now that you have learned many new things about a heritage craft, why not share? This helps you learn more about the topic and become more comfortable teaching others. Making an exhibit to show at the county fair is another way to share with others. You also may share your knowledge by giving a demonstration and show how to do something.

Demonstration

Select a topic that relates to something you learned about your project and plan a demonstration. Some ideas include:

- Use of design principles and elements
- Selecting fabric or yarn for a project
- Sharing the history of a craft
- Purchasing supplies
- Steps to complete a craft item
- Can you think of others?

Evaluation or Judging

Learn the standards of quality for your craft. The exhibit item will be compared to these standards at a fair or during craft competitions. Standards are printed in the 4-H craft project guidelines, or may be found in craft publications or fair judge's guides available through your county Cooperative Extension office. When you apply the standards to a craft item, you judge or evaluate that item against the standard of quality. Evaluating your project yourself will enable you to see how well you applied the skills you learned. How well did your item compare to the standards? What did you do well? Where can you improve? Answers to these questions will help you do a better job next time.

Community Service

You can learn a great deal about your community when you get involved to help others. You can:

- Make lap robes for elderly people or AIDS victims
- Make quilts for a homeless shelter
- Work on a fund raiser for a local cause
- Go to a local nursing home and visit residents
- Help an elderly or lonely neighbor with household chores
- Help younger members with their projects
- Can you think of others?

Fair Exhibit

Remember to record all of your activities during this year. It's easier to write them down as soon as you do them rather than wait until the end of the year and try to remember them. Be sure to include in your story not only the things you made, but the experiences you had, special things you learned and how you felt about them.

You must complete the History Page of the record. Plan early to begin your search for historic information. You have several options as to what you can learn about and share. You can find historic information on:

- the craft itself,
- tools used,
- new techniques developed,
- special uses of the finished items,
- influences of wars or trade,
- interesting artisans within the community,
or
- any other related topic.

The key is that the information you provide is directly related to the craft you are exhibiting.

Two photos of your finished product(s) are optional. However, photos of Heritage Arts exhibits enable judges to see how well the items fit your intended use.

If you used a pattern, please securely attach a clear copy to your record. Patterns are most helpful to judges when evaluating the project.

Projects will be divided into three age categories for exhibit based on age of the exhibitor as of December 31 of the year prior to the show. Age categories are:

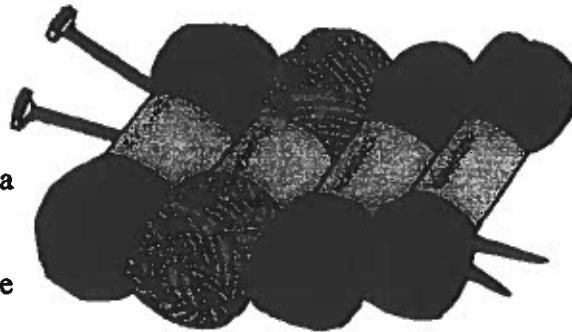
- Junior— 8 to 10 years of age*
- Intermediate— 11 to 13 years of age*
- Senior— 14 to 18 years of age*

All exhibit items are to be fiber-, fabric- or yarn-based arts and crafts. Crafts exhibited must be those traditional crafts which have been passed down through generations. For a complete listing of Fair Exhibit Requirements, see pages 2-3 of your *Heritage Arts Record Book*, RJ0700.

Introduction

Through knitting you will learn to express your creativity in a constructive way while developing a skill that is relaxing and fun. You will also have the opportunity to learn more about the history of knitting, when and where it originated, how it has been passed down through the ages, etc.

You may want to experiment with different yarns and fabrics to make unusual articles for yourself, others or your home. Visit with knitters in your community to discover how they learned to knit, what projects they have made and any suggestions they would give to a beginner. Locate resources in your local Extension office, the Internet, library, or yarn shops to get new ideas. Most importantly, have fun!



P roject Evaluation

Members are encouraged to develop new skills each year in the knitting project. Check the following list to see what new skills would be best for you.

Junior—8 to 10 years of age

Suggested techniques: cast on, bind off, purl, knit, stockinette, joining a seam, ribbing, increasing stitches, decreasing stitches, picking up stitches on an edge, making seams, and making buttonholes.

Intermediate—11 to 13 years of age

Suggested techniques: casting on stitches in the middle of a garment, using four needles or circular needles to form tubular (seamless) knitting, pattern stitches (diamond, cable, feather, etc) and using mixed-color knitting (i.e. bobbin, fair-isle, etc.).

Senior—14 to 18 years of age

Suggested techniques: personal choice depending upon your goals, alter patterns or create own designs, learn new techniques.

Knitted garments should be evaluated on:

Overall Appearance

- Clean and neat
- Properly blocked
- Suitable choice of yarn, thread and other materials
- Color combinations, harmonious
- Buttons, and zippers neatly and securely attached

Workmanship

- Uniform tension
- Accurate pattern stitches
- Yarn ends woven inconspicuously
- No twisted, split or dropped stitches
- Correct gauge
- Seams secure and neat
- Crocheted edges neat and even

Members who enroll in the 4-H Knitting project more than one year are encouraged to try new stitches and more advanced patterns.

History of Knitting

The word knitting is from the Anglo-Saxon word *enyttan*, and means to tie or to knot. Knitting makes an elastic, porous fabric from yarn with special needles. Interlaced loops hang from each other all the way down the fabric like a chain. This is why knitted material often gets a run or ladder, if a stitch is broken.

The art of knitting is older than written history. Men probably got the idea to knit fabrics as they knotted grasses into nets, mats, and baskets. Knitted articles dating back to A.D. 200 have been found. Historians agree that knitting originated in Arabia, where sailors and traders taught the technique as they traveled between countries. Knitting offered unlimited possibilities for attractive and utilitarian articles and quickly became widespread. Some scholars believe that the people of Scotland were the first to knit with wool. The first stocking firms appeared in Nottinghamshire, England, in 1589.

There is no concrete evidence that women on the *Mayflower* brought knitting supplies to the America with them, but we assumed they did because knitting was such an important part of daily life at that time. By the end of the Colonial period, knitting was a firmly implanted occupation for women and children. Its importance was considered equal to cooking, weaving and sewing. During the Revolutionary War, hand knitting provided essential warm clothing for fighting soldiers. The practice of women providing such clothing for soldiers continued in subsequent wars.

As more sophisticated techniques of manufacturing developed in the clothing industry, knitted garments became more of a fashion statement than essential clothing items. With ready-made clothing choices, hand-knitting has become a treasured hobby, an opportunity to create and re-create.

Knitting Basics

Needles and Yarns



Hand knitting is called *welt knitting*. The knitter works with yarn or thread and needles.

Needles

The needles are slender rods of steel, wood, plastic, ivory or celluloid. They may be pointed at both ends or may have a knob at one end to hold the stitches on the needle. Needles come in a variety of lengths and diameters. Larger needles are used with heavy yarns and form a loose weave. Thin needles are for lighter yarns and threads, and form a tighter weave. While most knitting requires the use of two straight needles, circular or four double-pointed needles may be used to form tubular articles, such as socks with no seams. A circular needle is actually two needles, joined by a long plastic cord. The completed stitches rest on the cord and are most useful in knitting articles with many stitches, such as afghans. Some knitters prefer to do straight knitting as well as tubular knitting with circular needles, because they find them easier to handle.

Straight needles, with single points, are packaged in pairs and are the most common. Usually made from plastic or aluminum, these needles come in lengths of 7 1/2, 10, 12 and 14 inches. Double-pointed needles, also known as sock needles, come in sets of four or five. Circular needles are made of metal, nylon or plastic with lengths varying from 9 to 36 inches. Sizes vary depending on if they are American, from 0 (small) to 15 (large); English 14 (small) to 000 (large); or metric, 2mm (small) to 10mm (large).

Knitting Needle Comparison Chart

American	0	1	2	3		5	6	7	8	9	10	10½			11	13	15
English	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	00	000
metric	2	2¼	2¾	3	3¼	3¾	4	4½	5	5½	6	6½	7	7½	8	9	10





Yarns

Numerous yarns and threads made from wool, cotton, silk, linen, rayon and other synthetics are available for knitters. Some yarns contain a combination of fibers is available. Some are heavy and tightly twisted, while others are fine and loosely twisted. Textures may be smooth or rough, stiff or soft. The ply of yarn refers to the number of strands twisted together. At one time, the term, four-ply, was synonymous with worsted weight, but with the numerous fibers and advancement of manufacturing, it is no longer always true. The more common yarn weights are, beginning with the lightest, crochet thread, fingering or baby yarn, sport weight,

worsted weight, bulky and rug yarn. There are also numerous novelty yarns available which usually fit into one of these categories. New yarns are developed on a regular basis, making it important to keep track of the *interchangeable yarn chart* information available at most yarn shops.

Common Yarn Sizes for Knitting

(Note: the term weight refers to thickness of yarn)

Baby-weight		Baby-weight yarn is often called fingering-weight yarn. This size yarn is more commonly used for baby items or lightweight summer wear.	0, 1, 2, 3
Sport-weight		This size yarn is excellent for children's clothing, and also for lighter-weight garments, both summer and winter.	4, 5, 6
Worsted-weight		This is the most commonly used weight. It is an excellent size yarn to work with while learning the skills to knit and crochet. The most popular items to make with this yarn size are clothing and afghans.	7, 8, 9, 10
Bulky-weight		This weight is excellent for your "quick-to-work-up" projects. It is twice as thick as worsted-weight yarn.	10½, 11, 13, 15

Pattern instructions always include the recommended size of needles and yarn. Because the gauge can vary from one knitter to another, it is essential to make a gauge swatch of about 3 inches by 3 inches to check for accuracy on *every* article made. It may be necessary to use a size smaller or larger needle if the gauge swatch does not meet the pattern specifications for gauge. Knitting in the wrong gauge can result in an item that is too small or too large. Only the most experienced knitters should attempt to use a different weight of yarn than the pattern indicates.

Tools and Equipment

As previously mentioned, a wide range of yarn and thread is available to hand knitters. Purchase all of the yarn needed for the project plus an extra skein with the same dye lot number before beginning a project. Colors from different dye lots can vary enough to make a noticeable difference, even in whites and blacks.

In addition to needles and yarn, several items are necessary for good knitting. A bag or other carrier helps keep the equipment together. Needle tips will keep your stitches on the needles when not in use. A crochet hook is useful to pick up dropped stitches and weave in yarn ends. A tape measure will check the gauge and the size of the work. A small pair of scissors for cutting yarn and a blunt tapestry or yarn needle for seaming also are essential tools.

Terms and Abbreviations

Knitting has a language of its own. Unless one understands the meanings of the words and phrases, it is impossible to transform yarn into fabric by using two needles. It is essential to be familiar with knitting terms and abbreviations and be able to interpret them. While most directions are abbreviated, the abbreviations can vary from author to author, and country to country. This may be confusing, but in many instances, the first letter of the word becomes the abbreviation. Fortunately, most patterns contain a list of abbreviations at the beginning of the directions.

Some of the more commonly used abbreviations are as follows:

b	back	pu 1	pick up one stitch
BC	back cross	P	purl
beg	beginning	Pb	purl into back of stitch
dec	decrease	rep	repeat
dec L	decrease left	*or**	repeat directions in same order following asterisk
dec R	decrease right	** or ()	repeat directions found between asterisks or parentheses
d.p. or dpn	double-pointed	RH	right-hand needle
FC	front cross	rnd	round
in(s)	inch(es)	sp	single-pointed
incl	inclusive	sl, s	slip, slip knit
inc	increase	st(s)	stitch(es)
inc L	increase to left	tog	together
inc R	increase to right	tw	twist
K	knit	yo or o	yarn over
kb	knit into the back of stitch	yh or wyib	yarn to back of work
LH	left-hand needle	yf or wyif	yarn to front of work
M 1	make one stitch		
pnso or p.n.s.o.	pass or pull next stitch over		
pssso or p.s.s.o.	pass or pull the slipped stitch over		

Sitches

The two main stitches used in knitting are the:

- *knit stitch* and
- *purl stitch*

All other stitches are variations of these two stitches.

The three major knitting patterns are the:

- *stockinette stitch*, which is knit one row, purl one row;
- *garter stitch*, in which every row is knit across in the same manner; and
- *rib stitch*, which combines an equal and alternating number of knit and purl in the same row to form an elastic band, such as in cuffs and necklines of sweaters.

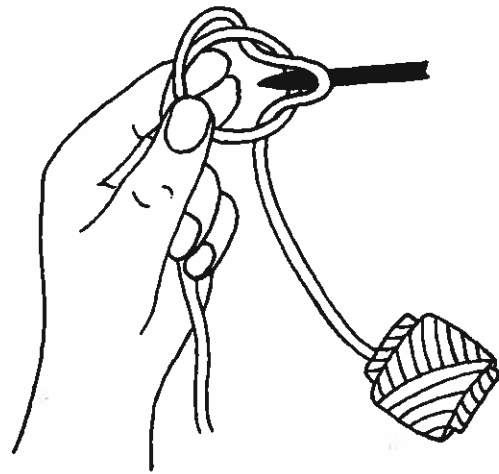
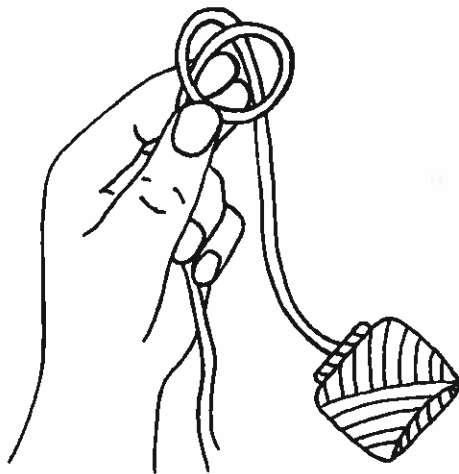
The desired number of stitches are cast on the needles. There are several ways to cast on and it is suggested the knitter try more than one of them. It is important to cast on the stitches loosely and evenly. This forms the base of the knitted piece. Casting on too loose can cause holes or gaps between the stitches, while casting on too tight can cause puckering and difficulty in working the first row. As with most handwork, practice makes perfect.

The following pages show illustrations of several knitting stitches and techniques.

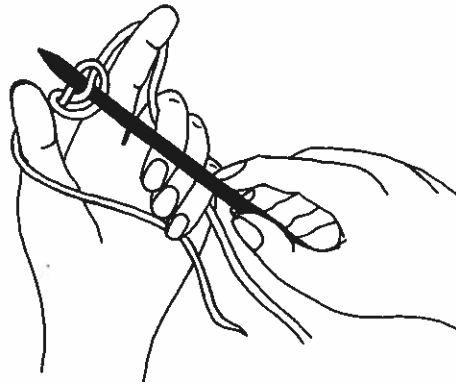
Casting On:

Allow 1" of yarn for every stitch you cast on (e.g., if you need 20 stitches allow 20" of yarn). Make a slip knot at the measured point of the yarn.

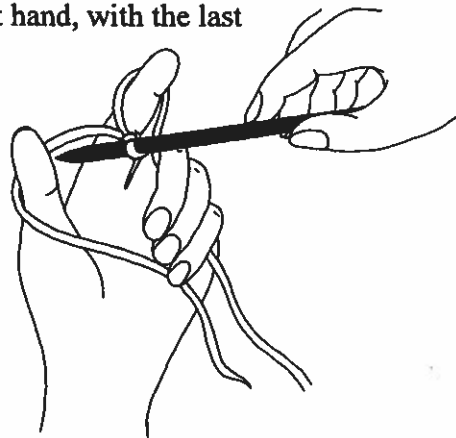
Place the loop on the needle.



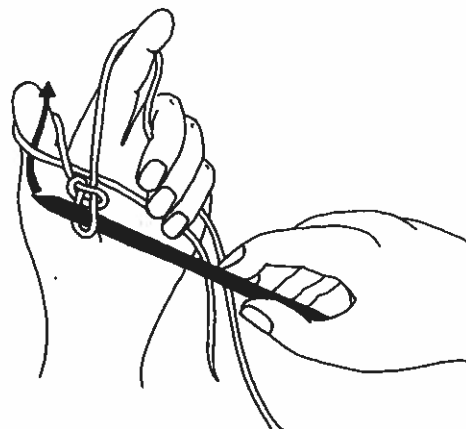
Slip the left index finger and thumb between the two strands and spread out. (Loose end of yarn should be around the thumb and the ball end of the yarn over the index finger.) Gently pull the two ends of yarn apart to tighten the loop (do not tighten it too much) so the stitch can move easily over the needle.



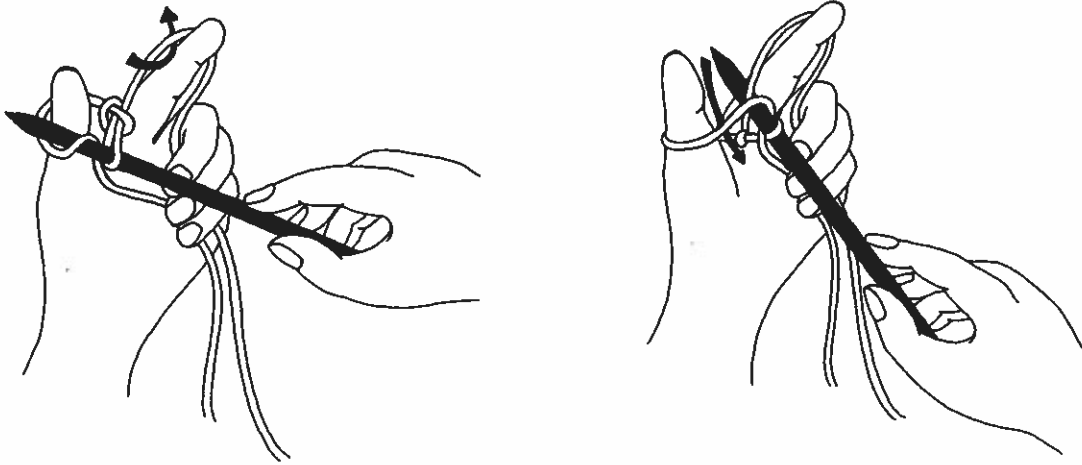
Both strands of yarn should rest in the palm of the left hand, with the last two fingers holding them down.



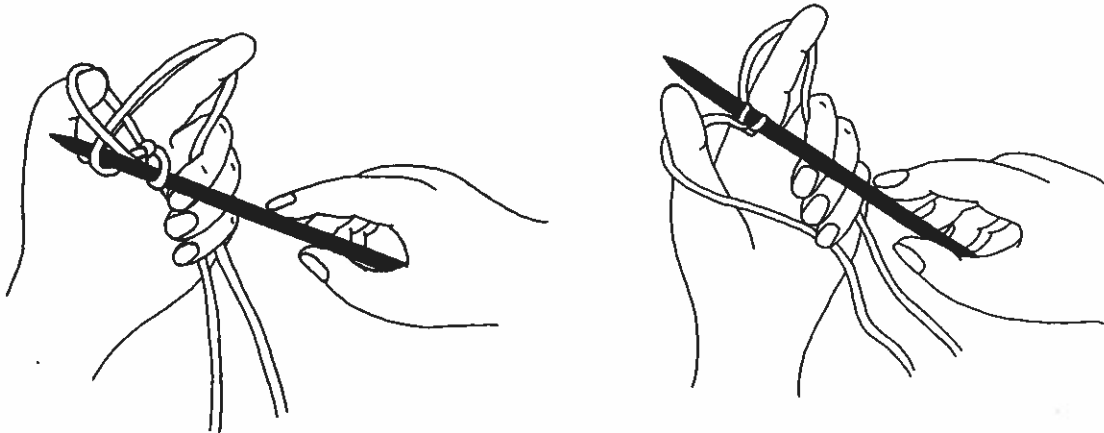
Insert the point of the needle under front yarn on thumb.



Catch yarn on index finger and draw through large loop on thumb.



Slip the loop off your left thumb and tighten stitch on needle. There should be two stitches on the needle.



Repeat from * until you have the desired number of stitches on the needle.

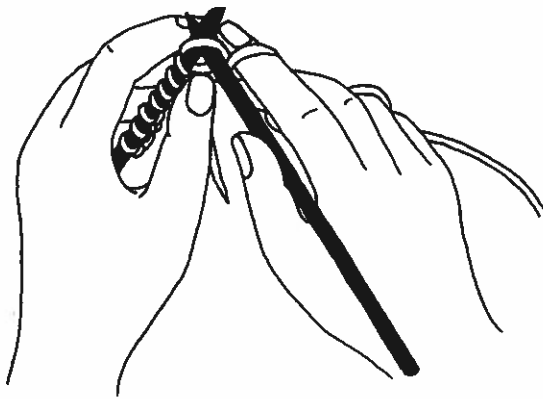
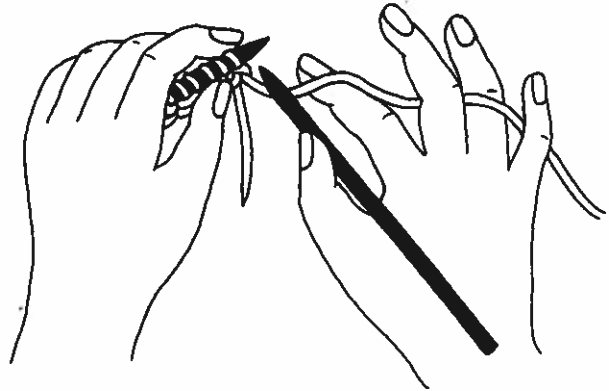
NOTE: If you have a tendency to cast-on or bind-off too tightly, use a larger needle or two needles held together. Place stitches on proper size needle or remove extra needle before beginning to knit.

Knit Stitch

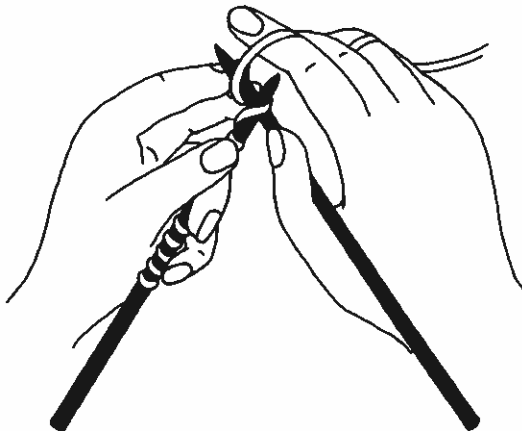
Take the needle with cast-on stitches between thumb and index finger of left hand. Hold the first stitch lightly to keep stitches from slipping off.

Hold right-hand needle between thumb and index finger as if you were holding a pencil.

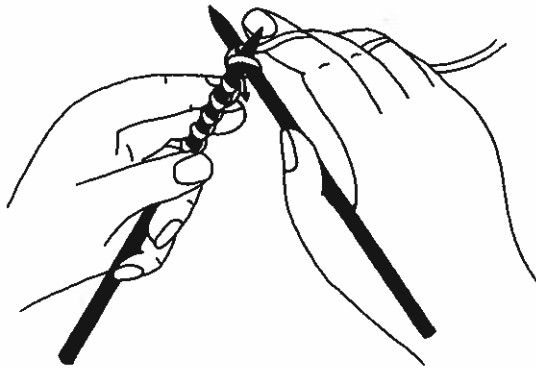
Place yarn over the first finger, under the second, over the third, and under the fourth above the knuckles. As you practice knitting, you will learn to adjust the yarn with these fingers so you will have even stitches. Bring your hands close together and adjust yarn to take up any slack.



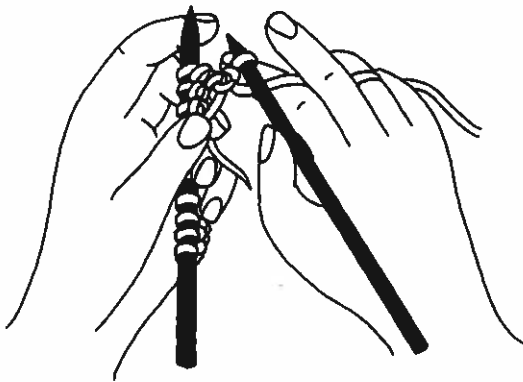
Insert the needle in your right hand into front of the first stitch on the left-hand needle. Insert from the left side of the stitch. Steady the right needle against the forefinger of the left hand. Keep the yarn to the back of your work.



With the right hand, bring yarn from the ball over the point of the right needle (yarn goes from back to front).



Draw the yarn through the stitch with right-hand needle.



Slip the old stitch off the left needle, completing the first new stitch on the right needle. A new row is now being formed on the right-hand needle.

Always keep pushing your work up so the working stitch is near the tip of the left needle. Repeat until all stitches have been knitted off the left needle. An easy way to remember these steps is to repeat to yourself, “in, over, through, off.”

Now you have knitted one row. You should have the same number of stitches you started with on the needle.

For additional rows:

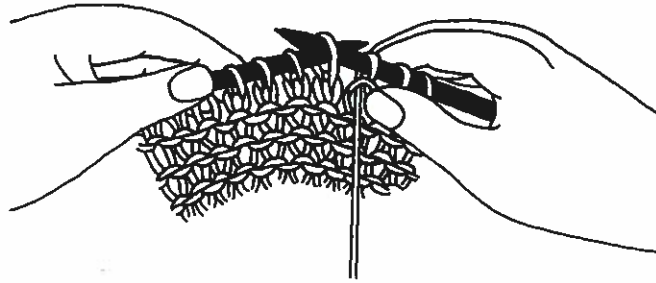
- Change the needle with stitches into the left hand. The empty needle is in the right hand.
- At the beginning of second and subsequent rows, knit the first stitch. (Some instructions suggest slipping the first stitch of each row to maintain a smoother edge. Knitting shops today, however, generally recommend knitting the first stitch to secure a better edge for sewing the garment together.)
- Bring yarn to back of work by passing it between the two needles. Proceed as before.
- It is a good idea to count your stitches at the end of each row while you are learning, to catch mistakes early. Later on, as you gain experience, you will only need to count your stitches every few rows.

Purl Stitch

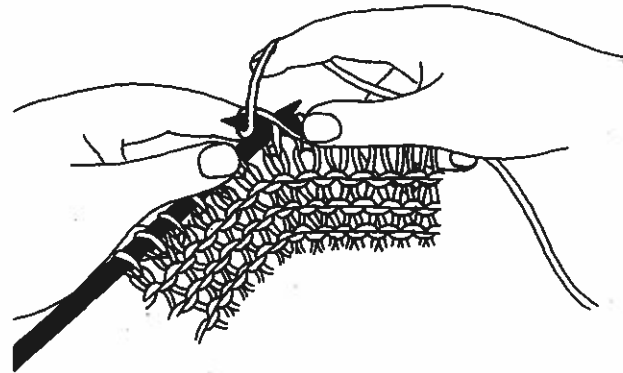
The purl stitch differs from the knit stitch in two ways:

- The yarn is held in front of the work when purling.
- The right-hand needle is inserted into the front of the first stitch on the left needle.

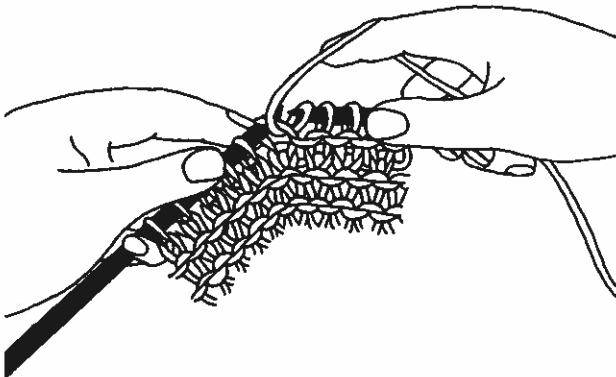
When purling, the yarn is in the front of the work. Insert the right-hand needle into the first stitch.



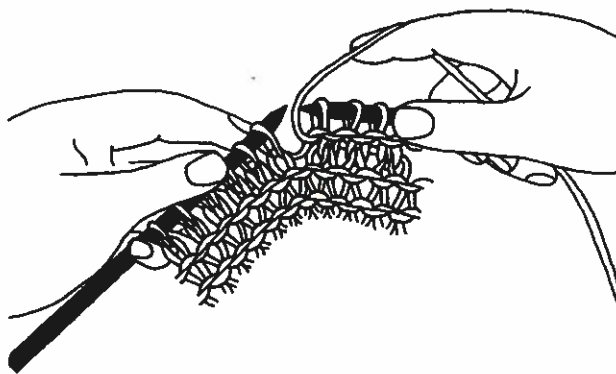
Bring the yarn over the needle round the point of the right-hand needle.



Draw the yarn through the stitch to form a loop.

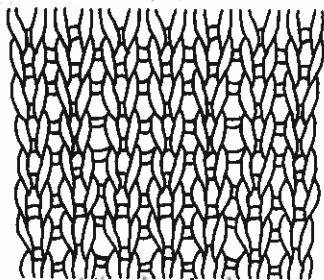


Drop the old stitch off the left-hand needle.



The purl stitch is generally not used alone. It is combined with the knit stitch and other techniques to create different patterns.

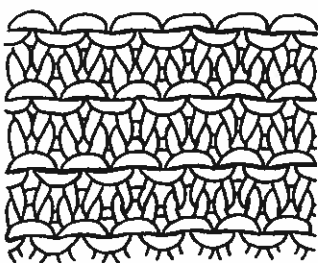
Stockinette Stitch



The stockinette stitch is made by knitting one row and purling one row. One side of the work is smooth , the other is rough. When the smooth side of the work is toward you, the row is knitted and when the rough side is toward you, the row is purlled.

Remember when you knit, your yarn is in back of your work. When you purl, the yarn is in front of your work.

Garter Stitch



When every row is knitted, the resulting pattern is the Garter Stitch. The Garter Stitch looks the same on both the front and back.

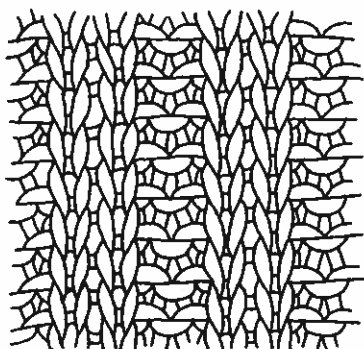
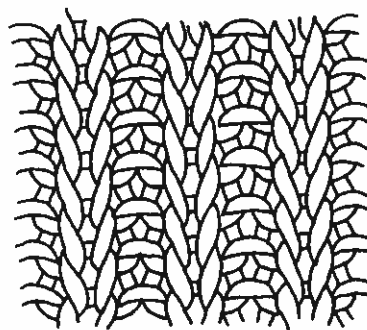
Rib Stitch

There is a large variety of rib stitches, from basic rib to fancy cable rib. Instructions are for the basic rib stitch.

1 x 1 Basic Rib

Row 1: knit the first stitch, purl the second. Repeat this sequence across the row.

Row 2 and subsequent rows: Knit the knit stitches and Purl the purl stitches.



2 x 2 Basic Rib

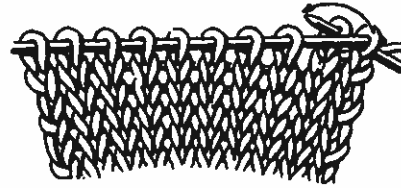
Row 1: knit the first and second stitch, purl the third and fourth. Repeat this sequence across the row.

Row 2 and subsequent rows: Knit the knit stitches and Purl the purl stitches.

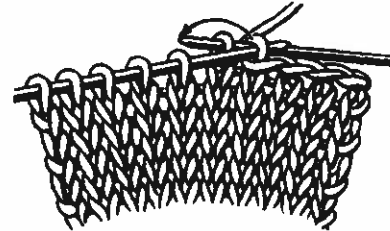
Binding Off

When your work is finished and you wish to remove it from the needles, bind off using the following technique.

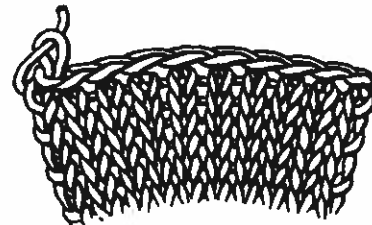
Knit two stitches loosely. Insert the left-hand needle through the front of the first stitch. Keep yarn in the right hand very loose so the stitches will remain loose. Bring the first stitch forward over the second stitch and over the tip of the needle so that one stitch remains on needle.



Knit the next stitch loosely. There are again two stitches on the right-hand needle. Slip the first stitch over the second, and drop it over the tip of the needle as before. Continue until only one stitch remains.



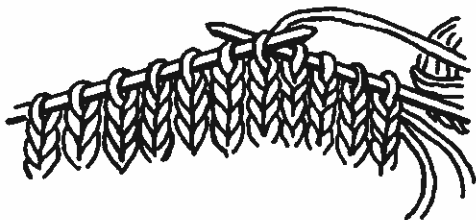
When you come to the last stitch, clip yarn the desired length (about 5", if it will be woven in or leave long enough to sew a seam, if necessary). Bring the loose end through the stitch remaining on the right needle and pull tightly.



NOTE: When binding off in ribbing, knit the knit stitches and purl the purl stitches. If there is no seam to sew, darn or weave the loose end of yarn into the back of the fabric so it will not show.

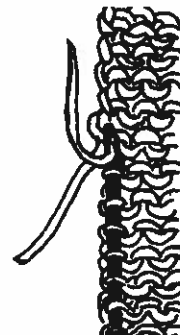
Joining Yarns

Yarns may be joined in any of several ways.



Weaving in

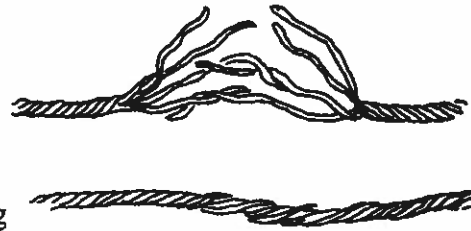
In flat work, always start a new ball of yarn at the edge. Tie the old and new ends into a knot.



Thread the loose ends back into the edge of the work later. Each yarn should go in a different direction.

Splicing

Yarn may be spliced by unraveling ends about 2 inches. Separate the threads and cut into uneven lengths. Lay the strands of both pieces of yarn together. Roll them all together following the original twist of yarn as much as possible. This makes a strong joining.



Insert side by side

Another way is to work to within 4 inches of end of yarn, then lay a new thread along the old so about 1 inch extends beyond the last stitch. Knit the next four stitches with double threads. Cut the ends after completing the piece you are knitting.

C

Correcting Errors

Before you can correct errors, you must learn to recognize them. The most common errors in knitting are: dropped stitches, twisted stitches and split stitches.

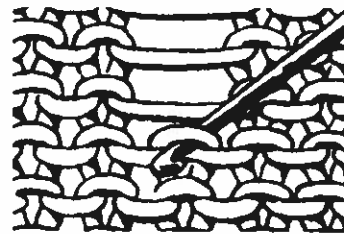
Dropped Stitch

Whenever possible, pick up a dropped stitch on the right (or outside) of your work. Use a crochet hook. Catch the dropped stitch and work it up on the horizontal thread of each row until you reach the row on which you are working. Be careful not to twist the stitches.

Knit and purl stitches should be pulled through from opposite directions. To pick up dropped stitches in the garter stitch, alternate the two methods for knitting and purling.



repairing a dropped knit



repairing a dropped purl

Twisted Stitch

Look closely at the right side (or knit side) in the stockinette stitch and you will see that each stitch forms a *V shape*. If you gently pull or spread the fabric by holding it on each side, the *V* will open or separate at the bottom. If a stitch is twisted and the yarn is crossed at the bottom or the base of the stitch, the *V* will pull together more closely when you pull on the fabric.

When you have a twisted stitch or knit a purl stitch or purl a knit stitch, work over to a point in the work directly above the mistake. Drop this stitch from the needle and down to the twisted stitch. Pick up the stitch with a crochet hook as you would any dropped stitch.

Split Stitch

A split stitch occurs when the knitting needle pierces the yarn separating the strands instead of the going inside the loop, when forming a stitch. Pay careful attention when forming your stitch to avoid this problem.

Blocking

Blocking is an important step to complete a hand-made garment. It gives the article a smooth, finished look. Pieces of a garment may be blocked separately before sewn together, or blocked after it is complete. However, many garments need to be blocked again after each washing.

It is important to check yarn labels for blocking directions. Some synthetic yarns need to be machine washed and dried to look finished. Others must be hand washed and dried flat.

Damp Towel Method

This method uses only moisture and is good for mohair, wool, cotton, synthetics and highly textured yarns.

1. Lay a wet towel on a flat surface. Shape the wet or dry garment or pieces on the towel, using a tape measure to be sure the measurements of the pieces are the same size as the pattern pieces.
2. Avoid the creasing in seams and sleeves by placing rolled and crumpled white tissue paper inside the seams and sleeve.
3. Cover the garment with a wet towel and leave in place until completely dry. This could take a few days, depending upon the weight of the yarn.

Steaming:

This method is risky because it is easy to ruin a garment if not done properly. *Never* place an iron directly on the article; the heat and weight can crush the fibers, which will not recover.

Use steam only if absolutely necessary, working carefully under the supervision of an adult.

1. Place the garment on a towel-covered flat surface. Cover the garment with another light-weight towel.
2. Hold a hot-steam iron 1" to 2" above the top towel, pausing along seams and areas that require more blocking. Allow the top towel to cool before checking the garment. More than one steaming may be required.

Dry Cleaning:

Some knitters prefer to have their garments blocked by dry cleaning. This is a bit risky, because dry cleaning can cause severe shrinking and/or matting.

Unless a dry cleaning establishment has an excellent reputation for good work, dry cleaning should be the last resort for blocking hand-made garments.

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No Idle Hands: The Social History of American Knitting by Anne L Macdonald: Ballantine Books, New York (1988).

World Book Encyclopedia.