UK COOPERATIVE EXTENSION SERVICE UNIVERSITY OF KENTUCKY – COLLEGE OF AGRICULTURE

Needlepoint

Needlepoint is the art of creating stitches with a tapestry (blunt) needle and wool (tapestry or Persian) yarn on an openweave mesh fabric known as canvas. Stitching is precise and can go in only two directions—either diagonally across or parallel to the canvas threads.

Needlepoint requires specific supplies, namely a *tapestry needle*, *mesh canvas*, *needlepoint yarn* or thread, and *markers*. Of course, the typical needlework tools are required, such as scissors, ruler, etc. Needlepoint supplies may be found at needlepoint, yarn, or craft stores, as well as catalogs and Web sites. Refer to the attached Resource List.

Needles

A special blunt-end tapestry needle is necessary for needlepoint. It has a large eye for easier threading and a blunt point to prevent the needle from piercing the canvas. Tapestry needles are available from #13, the heaviest/largest to #26, the finest. The larger the number, the smaller and shorter the needle and the smaller the eye.



The canvas size is a determining factor in needle selection. The threaded needle should pass through the canvas hole without distorting the hole or fraying the yarn. You may use the chart below as a guideline to determine the proper size to choose.

Needle Size	<u>Canvas Size</u>
13	3 - 5
14 -16	7 - 8
18	10 - 12
20	14
22	16 - 20
24 - 26	22 - 24

Canvas

Most good quality canvas is 100 percent cotton. Width may vary from 27 inches to 39 or 55 inches. The wider the canvas, the more costly it will be. Canvas size is determined by the number of holes or mesh per inch. A mesh is the point where the vertical and horizontal threads cross. Always count threads per inch when working from a graph. For example, in #14 mesh canvas there are 14 mesh in a one inch measurement. A smaller number means a larger hole and fewer holes per linear inch. A #10 canvas is a good basic size to work with, along with a #18 tapestry needle.

The two main types of canvas are mono or single thread and Penelope or double thread canvas. The mono canvas is found in even weave, often called mono, or interlock. Plain mono/even weave provides "give" when needed. Mono canvas helps prevent thread from snapping with wear and leaving a hole in the canvas. Interlock mono canvas has less give but tends to have less distortion from stitching.

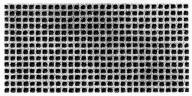
When determining the amount of canvas to purchase or cut for a project, allow at least three to four inches more than the finished size of the project – leaving a $1\frac{1}{2}$ - to 2-inch border around the edge of the design.

TYPES OF CANVAS

Plain Mono – single horizontal and vertical threads.

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Interlock Mono – 2 vertical threads that interlock with single horizontal threads.



Penelope – double horizontal and vertical threads.

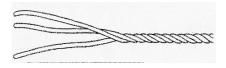
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YARN AND THREAD

Yarns for needlepoint come in a variety of fibers, weights, and textures, plus many beautiful colors. Strand and ply are two terms relating to yarn structure. A *strand* is the unit; a *ply* is part of a strand. To avoid fraying yarn, cut in lengths of no more than 18 inches for stitching. Knitting yarns are not recommended as substitutes for needlepoint yarns as they have short fibers, which fray easily. Below are some of the most commonly used yarns for needlepoint. **Persian** – a 2-ply, 3-strand wool or acrylic yarn that can be easily separated, if desired. Strands of this yarn can be used singly or in multiples depending on the size canvas and type of stitch. This yarn generally comes in ½ ounce skeins and 4-ounce hanks. Wool yarn is *highly recommended* for needlepoint projects.



Persian Yarn Detail



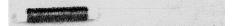
Tapestry – a 4-ply single strand wool or acrylic yarn, slightly finer than 3 strands of Persian yarn. Plies are difficult to separate. Wool yarn is highly recommended for needlepoint projects.



Pearl Cotton – a 2-ply single strand thread made in varied thickness: #3 heavy, #5 medium and #8 fine. The medium #5 is a bit finer than one strand of Persian yarn.



Metallic Thread – is available in various weights, textures, and colors. It is not a durable yarn and, therefore, should be used in small areas and/or as an embellishment. Shorter lengths of yarn must be used due to its fragile nature.



AMOUNT OF YARN

To determine yarn quantities to purchase for needlepoint projects, follow this general guideline: One ounce of yarn covers 36 square inches or 6- by 6-inch on 14-mesh canvas. When using tent stitches, this amount of yarn may cover about 25 square inches or 5- by 5-inches of #14 mesh canvas.

MARKING SUPPLIES

Marking your canvas with your design can be done with an ultra-fine point gray or light colored permanent marker. Heavier and/or darker markers are not recommended as the yarn and stitching may not cover the marking. Dark colors may also show through lighter colored yarns.

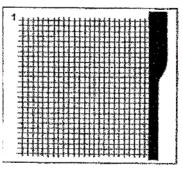
STARTING YOUR PROJECT

Before you take the first stitch, there are a few tasks to complete.

• Prepare the canvas

Canvas should be cut along a thread in both directions. Remember to add 3 or 4 inches to the project size – allowing a 1½- to 2-inch border. Encase all raw edges of the canvas with masking tape. Fold the tape evenly in half over one side of the raw edge and press firmly (**Figure A**). Turn over the canvas and press the remaining half of the tape to the back side. You may also bind edges with bias tape. This prevents fraying and will keep your yarn from catching on the rough edges of the canvas.





• Make an outline of canvas

Most projects will need to be blocked and stretched back into shape upon completion. Therefore, it is **very** important to make an outline of the shape of the beginning size of the canvas on paper. You may also wish to measure the piece and write down the exact measurements on your pattern/instructions. Keep these with your project supplies.

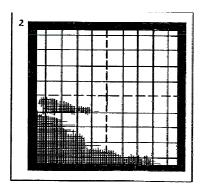
Mark design on canvas

Unless you purchase a kit or marked/painted canvas, you will need to mark your design onto the canvas. Grey or light colored ultra-fine permanent markers are recommended. Dark or thicker markers will often show through the stitching.

Mark canvas center

You may wish to mark the center of your canvas or design by folding the canvas in half both ways and mark along both lines. If you are using a chart or graph to follow a pattern, it may be helpful to make a grid (**Figure B**).

Figure B - Marking center of canvas

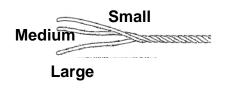


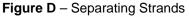
• Prepare the yarn

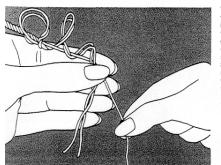
Needlepoint yarn/thread should be cut into lengths no longer than 18 inches. Yarn that is too long will tangle. It will also wear and become thin. If using a yarn that needs to be separated (**Figures C & D**), separate the yarn as you need it, rather than separating all strands at one time. Gently pull one strand loose with one hand while holding the other two with your other hand.

There are three different sizes of strands in a 3-ply wool yarn—small, average, and large. When using less than three strands, use two medium strands OR one large strand and one small strand to maintain yarn balance.

Figure C - Strands of Yarn

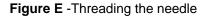


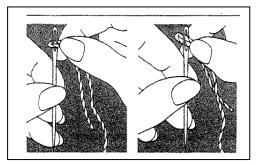


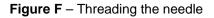


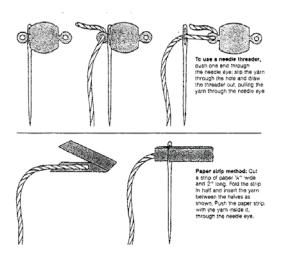
Threading the needle

Threading the needle may be done in a variety of ways. Try one of the ways shown below to decide which is easier for you (**Figures E & F)**.





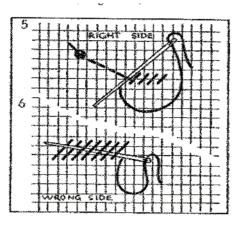




STARTING TO STITCH

To begin stitching, bring the threaded needle through a hole in the canvas from the back/underside to front/right side. Leave a 2-inch "tail" of yarn on the underside and hold it with one hand until 1 or 2 stitches are taken. Try to catch and cover the yarn end/tail with continued stitches. As a rule, knots are not used in needlepoint yarn. If you have difficulty with the first method, use the method in **Figure G** (top of the diagram), making a "waste" knot on top of the canvas. After stitching a few stitches and covering the beginning yarn on the back of the canvas, cut off the knot. Be careful not to cut the canvas when you cut the knot. Be sure no yarn ends show on the right side.

Figure G – Starting and ending



Ending

When there is about 3 inches of yarn remaining on the needle, it is time to finish the length. Needle should be on the underside of the work. Run the needle under several stitches on the wrong side and cut the end of the yarn (**Figure G** bottom).

Where to Begin

The beginning point of a project will vary. Here are some considerations.

- If you begin stitching at the top of the canvas and work downwards, you will not disturb the stitched area.
- Working the border first can help hold the canvas firm and create less distortion.

- Patterns may recommend that stitching start in the upper right-hand corner of the canvas or design, especially if using the basketweave stitch.
- Work darker colors before lighter colors so they do not become soiled or discolored.

After several stitches, the thread frequently becomes twisted. To untwist the yarn, let the needle dangle from the back side, then begin stitching again. *You will need to untwist the yarn/thread frequently*.

There is a very important rule to remember that will be helpful to beginners of needlepoint. *Try to come up in a "clean" hole in the canvas.* In other words, try to bring the needle from the back to the top side of the canvas in a canvas hole that has no previous stitch in it. *Go down into a "dirty" hole*, or one that will share its space in the canvas. This aids in taking any wisps of fluff that form on the yarn to the back or wrong side of the work. With some stitches, this suggestion may not be possible to do with every row.

Always complete a row rather than stopping in the middle, as this can leave a ridge in the finished surface. It is best not to jump from one area to another of the same color. Finish off the thread, and then start again unless you are only stitching a very few stitches. Sometimes a carried yarn shows through to the right side.

Always keep track when stopping the basketweave tent stitch. If you end with an upwards row, stop and then restart with an upwards row – instead of working downwards. Otherwise it will show in your finished work. Do not leave loose ends that are uncut as they may be caught in other stitches and show on the right side. If you need to remove several stitches because of a mistake, do not reuse the yarn. It will be thinner and will not cover the canvas properly.

STITCH TENSION & YARN COVERAGE

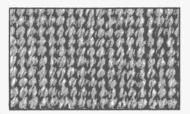
As you work needlepoint stitches, it is important to maintain the correct yarn tension and to use a yarn that properly covers the canvas. Good stitch tension allows the yarn to cover the canvas smoothly and evenly on the surface or top side. Tension that is too loose causes the yarn to stand out more than it should and can be snagged more easily. Loose tension makes the item less durable. Tension that is too tight will distort the canvas. It will also stretch the yarn so that the canvas may show through the stitches.

STITCHES

Tent Stitch

The basic needlepoint stitch is a diagonal stitch placed at the intersection of the canvas and called a *tent* stitch (**Figure H).** All tent stitches look the same on the right side but differ on the wrong side. The two recommended tent stitches are the basketweave and the Continental because they are the most durable stitches.

Figure H - Tent Stitch



The basketweave stitch does not distort the canvas as much as the Continental and can be used successfully on mono or interlock canvas. Often times you will use both stitches within a design. The basketweave stitch is better suited for larger areas of stitching, while the Continental can be worked in smaller areas.

Basketweave Stitch

The basketweave stitch begins in the upper right-hand corner (**Figure I**). Work alternately down and then up the canvas. You will "skip" a canvas hole as you work each row. All rows worked "downhill" must cover the vertical mesh that lies on the top of the horizontal mesh. All rows worked "uphill" must cover the horizontal mesh that lies on the top of the vertical mesh.

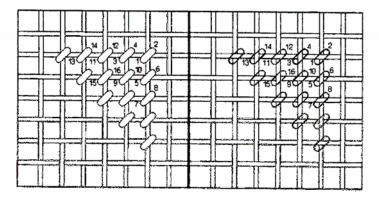
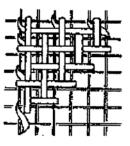


Figure I - Basketweave stitch

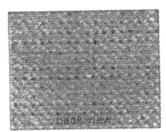
[Above picture provided compliments of *The Threaded Bee, LLC*.]



The backside of the basketweave stitch shows the interlacing of yarn, hence the name basketweave.

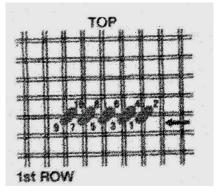
Continental Stitch

The Continental stitch may be stitched either horizontally (**Figure J**) or vertically (**Figure K**). To

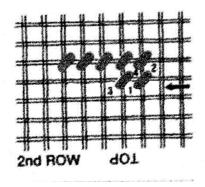


stitch horizontally, begin at the right side of the canvas or design and work to the left.



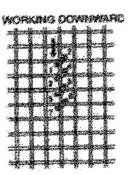


To stitch the next row, turn the canvas completely around, stitching the new row directly in line with the previous row.



To stitch vertically (**Figure K**), start at the upper right corner of design and work down the canvas. Turn the canvas completely around to form a new row of stitches next to the row just completed.

Figure K - Vertical Continental Stitch



BLOCKING AND FINISHING

Blocking is the process of bringing the stitched needlepoint back to its original size and shape. The distortion of the canvas is nearly unavoidable and caused by the stitches. This is the reason it is important to trace your pattern or record the dimensions at the beginning of your project. Distortion can be even more of a problem when tension is too tight or yarn is too heavy for the canvas mesh size. Working needlepoint in a frame can lessen distortion but is not always compatible with the size or design of a project.

Every needlepoint project will likely need some form of blocking. Before blocking, be sure to double check your work for any missed stitches or mistakes. It is also recommended that you have 2 or 3 rows of stitching beyond the finished size to allow for finishing. Once this is done, consider which blocking method to use. You will need to choose one of the three shown below. Some projects may require more than one method or the same method repeated to achieve a "squared" finished project.

Blocking Equipment

It is possible to some or all of these items

· Ironing board or mat

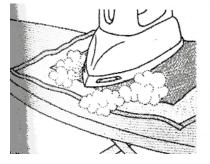
- Steam iron
- Thick terry towels
- Unfinished plywood, ½-inch thick, or other wood soft enough to push tacks into
- Rustproof tacks
- Small spray bottle of clean water
- Old sheet to cover plywood optional

Blocking Method #1 – *If there is minimal distortion, such as with small pieces.*

Lay needlepoint face down on the towel and use lots of steam from the wrong side without pressure (**Figure L**).

Note: Tent stitched pieces should be placed face down. All other/pattern stitches should be placed face up on the board.

Figure L

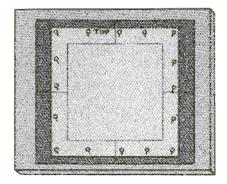


Remove from towel and let dry thoroughly.

Blocking Method #2 – For larger pieces or projects with greater distortion.

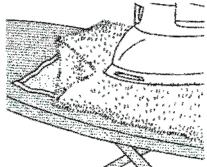
Place pattern/shape of needlepoint design onto blocking board, or mark dimensions onto a board for a guide before beginning the actual needlepoint. Cover with tissue paper (**Figure M**).

Figure M



When needlepoint design has been stitched on canvas, lay project face down on ironing board. Dampen a terry towel and lay over the needlepoint (**Figure N**). Using lots of steam, steam press with iron over towel (no pressure) to dampen the needlepoint.

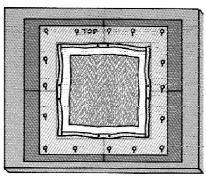
Figure N



Place dampened needlepoint onto the blocking board (**Figure O**). Stretch to fit the original size.

Note: Tent stitched pieces should be placed face down. All other/pattern stitches should be placed face up on the board.

Figure O

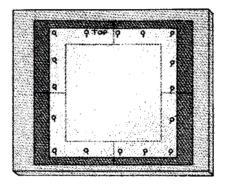


Begin by matching centers and edges of canvas to pattern. A second person will be needed to hold and help stretch piece. Tack to board. Gently stretch canvas and tack to board every 1 to 2 inches as needed. Let air dry. Blocking may take several days. Once dry, remove tacks and finish project.

Blocking Method #3

Place pattern/shape of needlepoint design onto blocking board or mark dimensions onto board for a guide (**Figure P)**.

Figure P



Thoroughly dampen needlepoint by rolling it in a dampened (not soaking wet) terry towel. Leave overnight to allow moisture to penetrate canvas and yarn (**Figure Q).**

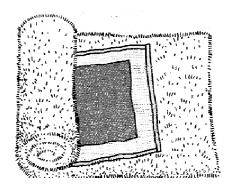
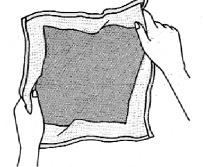


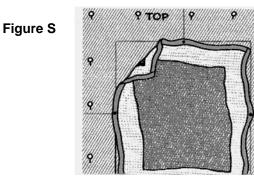
Figure Q

Remove from towel and gently stretch it in the opposite direction of the distortion (Figure R). Place needlepoint onto blocking board. **Note**: Tent stitched pieces should be placed face down. All other/pattern stitches should be placed face up on the board.

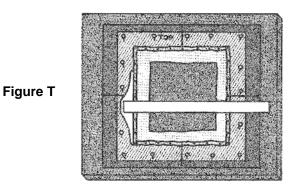
Figure R



Begin by matching centers and edges of canvas to pattern (**Figure S**). Tack to board.



Gently stretch canvas and tack to board every 1 to 2 inches as needed. Use a Tsquare to check straightness (**Figure T**).



Let air dry. The process may take several days. Once dry, remove tacks. Needlepoint that has a great deal of distortion may have to have repeated blockings.

Once you are satisfied with the shape, finish the project as desired.

FINISHING PINCUSIONS AND PILLOWS

Making a pincushion or pillow is a popular way to finish a needlepoint project. These are finishing supplies you may need:

- Sewing machine
- Thread to match backing fabric
- Fabric for the back in a matching or coordinating color – i.e., velveteen, no- wale corduroy, suede-like fabric, tapestry
- Inner lining fabric (muslin works well)
- Polyester fiberfill for stuffing or pillow form for pillow
- Small amount of steel wool for pincushion only
- Scissors
- Hand sewing needle
- Optional: For tassels yarn to match or coordinate with your project and a small piece of cardboard

When stitching the project, you will need two or three extra rows of Continental or basketweave stitches around the finished design. To stitch the needlepoint to the backing fabric, you will stitch between these extra rows to give stability to the seam. Your project will need to be blocked **before** you begin making it into a pincushion or pillow.

Pincushion Inner "Pillow"

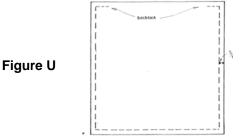
To make a pincushion, follow the *Inner Pillow – Handmade Pillow Form* instructions below, with one addition. Make a smaller "pillow" for the center of the inner pillow to help keep the pins and needle sharp. To do this take a small amount of steel wool* wrapped in polyester batting. This is to protect your needlepoint in the remote event that the steel wool rusts. When using this method for your inner pillow, very little additional stuffing will be needed.

* Super fine steel wool pads may be purchased at any store that has a hardware department.

Inner Pillow

Purchased pillow form - A pillow form may be purchased that is the same size of the desired/finished needlepoint or up to 1 inch larger. For example, if your needlepoint is 12- by 12-inches, the inner pillow can be 12 inches square or 13 inches square. The larger size is recommended in order to have a wellstuffed pillow.

Handmade pillow form - If you make an inner pillow from washed muslin fabric, the same rule applies. To make a muslin inner pillow, make a paper pattern 1 inch wider than the desired/finished size. If you are making a 13-inch square inner pillow, make your pattern 14 inches square. Cut two squares or shapes of fabric on the grain. Sew a ½-inch seam, leaving an opening for the polyester batting (**Figure U**). Make a plump pillow. Stitch the opening closed on the sewing machine or by hand. Your inner pillow is machine washable and dryable.



Pillow Backing

There are several considerations for your pillow backing fabric, including durability, wash ability, and color that will complement the color and design of your project.

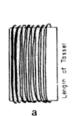
Because needlepoint is long wearing, be sure to select a durable fabric. Needlepoint projects require an investment of time and supplies that may be expensive. Therefore, you do not want to downgrade the project with fabric that does not match the quality of your work.

The pattern for the backing fabric should be cut 4 inches larger than the finished design. This allows for a 2-inch seam on all sides. You may remember when you began your project; the canvas was cut with a 2-inch border around the design. The backing fabric piece should be cut on grain.

Tassels - Optional

Before going any farther, decide if you want to add tassels to the project. Tassels make a nice finish but are not required for the project.

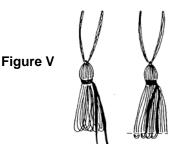
To make tassels, cut a piece of cardboard 4- by 2-inches. Wrap yarn around cardboard. Using a 6-inch strand of yarn, tie the yarn together at the top of the cardboard, making a knot. Slide the yarn off the cardboard.







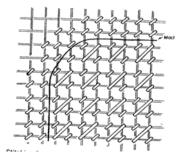
Approximately ³⁄₄ to 1 inch below the tied yarn, wrap another strand of yarn around all the yarn several times and tie a tight knot. Cut through the loops at the bottom. Trim the ends of yarn to make them even (**Figure V**).



Sewing the Needlepoint and Backing Together

Without Tassels – Place the right sides of the backing fabric and needlepoint together and pin. Count and mark the area between rows two and three.

Carefully machine stitch between these rows of the Continental stitches and the actual needlepoint design.

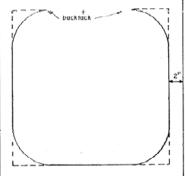


The seam allowance should be about ½ inch.

Round the corners as you stitch, making sure the corners are curved the same. You may wish to make a curve "pattern" and make light markings on the back of the needlepoint.

Remember to leave an opening to insert the inner pillow (**Figure W**).

Figure W



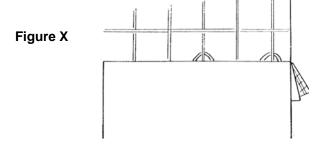
Backstitch at each side of the opening. Turn pillow/pincushion right sides out to check stitching. If it is satisfactory, turn wrong sides out again.

Trim seam allowances of both the needlepoint canvas and backing fabric to 1/4 inch, except at the opening; leave a 1-inch allowance.

Zigzag the raw edges together, except for the opening. Turn right sides out. Place pillow form inside the needlepoint cover. Be careful not to break the machine stitching at the opening or tear the fabric backing. Push the inner corners of the inner pillow into the corners well.

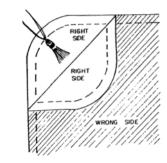
If needed, add additional batting to the corners. The pillow needs to look well stuffed!

Pin the opening closed and hand sew the backing to the needlepoint with a blind stitch. Pick up one mesh/thread of the canvas at a time **(Figure X).** Stitches should be small - 1/4 inch apart.



With Tassels – Place the right sides of the backing fabric and needlepoint

together and pin. Insert one tassel in each of the corners, pointing toward the center of the pillow (**Figure Y**). Continue the directions above for making a pillow without tassels.



FRAMING NEEDLEPOINT FOR HANGING

Figure Y

Needlepoint can also be framed. You may frame it yourself or take it to a professional who can do the work for you or provide some helpful suggestions on how it can be done. Regardless, if the item is to be framed, always leave a 2inch margin of unworked mesh canvas on all sides.

To prepare a needlepoint piece to hang on the wall, either frame it within a regular picture frame or mount it on fiber board or similar board. The softness of the wool is shown best without glass over it. Glass may flatten the stitches and also reflect the light, so it is preferable to do without it.

Buy or make four frame pieces to fit the design—items are available at art supply stores. After blocking the work, leave it on the stretcher strips. Now, fit the frame pieces around the stretched needlepoint and assemble the frame. Use two eyescrews and picture hanging wire at the back of the work to hang it. These should be screwed into the stretchers and not into the frame. The needlepoint can be hung without a frame after it has been blocked. Purchase a piece of composition or fiber board which is cut a half-inch smaller than the finished design, some cotton sheeting, and a piece of batting approximately the same size as the entire canvas.

Begin by attaching the batting evenly on the board, holding it in place with pieces of wide masking tape. Next, cover with the cotton sheeting in the same manner.

Place the needlepoint face down on a flat, firm surface, putting the cotton-covered board over it. Position so that only the design will be exposed on the right side with no raw edges showing. Secure all four edges down with masking tape, working opposite sides against one another. Once the work has been secured, it can be stapled down with a staple gun.

Cut the backing fabric ½ inch larger than the finished picture. Press these ½-inch turn backs down and secure by hand hemming all around. Attach two eye screws with wire between for hanging.

References

Reader's Digest *Complete Guide to Needlework,* The Reader's Digest Association; New York: 1979. <u>www.readersdigest.com</u> Pictures used with permission.

Coats & Clark ABC's of Needlepoint. Pictures used with permission

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