

SKILLS FROM SCHOOL IN ART

A CURRICULUM GUIDE INTEGRATING QUILTS IN THE CLASSROOM

Developed in conjunction with the exhibition



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Produced by members of the Contemporary QuiltArt Association
Stephanie Randall Cooper • Kathleen O'Hanlon • Lindi Wood

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SKILLS FROM SCHOOL IN ART

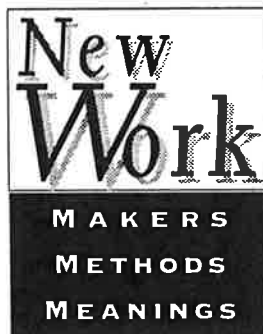
A CURRICULUM GUIDE
INTEGRATING QUILTS IN THE CLASSROOM

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Stephanie Randall Cooper
Kathleen O'Hanlon
Lindi Wood
Contemporary QuiltArt Association
P.O. Box 95685
Seattle, WA 98145-2685

Foreword by: Kelli D. Radcliffe
Cover Design: Maude May

Developed in conjunction with the exhibition



An art exhibition at the
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September 6 through December 28, 1994

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INTRODUCTION

From September 6 through December 28, 1994, the Contemporary QuiltArt Association hosted a juried exhibition of art quilts at the Washington State Convention and Trade Center in Seattle, Washington. The exhibition, titled *NEW WORK: MAKERS METHODS MEANINGS*, displayed 26 works by individual regional living artists, members of the organization, with informative signage next to each work in the artist's own words.

In conjunction with this exhibition, beginning October 6th and running concurrently, a three part educational component was introduced. The EDUCATION GUIDE, a free brochure, allowed classes and the general public to tour the exhibition and education wall by themselves or with a docent while thinking and learning about art quilts. The EDUCATION WALL, *SKILLS FROM SCHOOL IN ART*, addressed the use of math, science, language arts, and social science in the creation of this fiberart form through documented photography, work samples, display of tools, and informative, descriptive text.

This CURRICULUM GUIDE, the third educational element, was conceived as a tool to introduce quilts into K-12 classrooms. The Guide recognizes the dependence and importance of everyday skills taught in school which are used in creating a "contemporary quilt." This Guide contains lesson plans which were produced to supplement existing Washington State curriculum recommendations. The skills which are the focus of study for this guide are math, science, social studies, and language arts. Also provided in this guide are an overview of quilt history, a bibliography, suggested classroom and individual projects, plus some easy step-by-step directions for making a quilt.

Educators are always striving to make lessons exciting and innovative so that their students enjoy learning and will want to participate. One way to make learning more interesting is to connect that unit of study to something that will expand the concept through unusual research or manipulation. The curriculum guide was created to assist educators in their efforts for creative teaching while opening the doors to an art form that many students have never had an opportunity to understand and may never have a chance to do—quilting.

Most everyone recognizes that quilts have played a part in United States history: from the production of quilts by our first settlers and sometimes by their slaves, warming soldiers during the Civil War, the piecework quilts created out of necessity by our pioneers. Students can see evidence of this when looking at textbook pictures of people in their covered wagons, slaves on the plantation, and death on the battlefield.

What is not commonly acknowledged is the importance of the quilted object to signify a person's place in society: the use of needlework skills to make quilts which were sold to help pay for the Civil War and to buy freedom under slavery, the use of the quilt as a political and social weapon, as well as the conscious and sub-conscious decisions we use, based on those skills we learn in school, to create any work of art, including art quilts.

The authors of this guide, on behalf of the Contemporary QuiltArt Association and with the assistance of many multi-disciplinary educators, school district curriculum development department staff, and the Office of the Superintendent of Public Instruction (State of Washington), invite you to be a part of these innovative, ground breaking efforts to integrate the history and the art of the quilt in the classroom.

ACKNOWLEDGMENTS

Contemporary QuiltArt Association is an arts organization which sponsors and promotes the professional endeavors of artists working in the quilt medium. The association seeks to educate the public about this art form.

The Curriculum Guide, *SKILLS FROM SCHOOL IN ART*, was produced by members of the Contemporary QuiltArt Association. Its authors, Stephanie Randall Cooper, Kathleen O'Hanlon, and Lindi Wood, worked diligently to create a valuable, thoughtful and creative tool which enables educators to introduce past quilts and their history, as well as their contemporary counterpart, the art quilt, into the minds and vocabularies of K-12 students.

As artists, the authors were able to use their expertise to insightfully choose those fiberart lessons which would be valuable in the thinking, designing, and creation of a fiberart object. As parents, the authors drew upon their experiences with children of varying ages to knowingly manipulate lessons which meet the desires and expectations of innovative young minds. Since the authors are not educators, they have enlisted the assistance of teachers and curriculum developers who know best the writing of a good lesson plan.

The authors wish to thank our teachers and curriculum developers who read and edited the curriculum drafts, made invaluable suggestions, and lent support to the project from its inception. Many thanks to: Cherri Brown, Jim Hamilton, Chris Johnson, Robin Meyers, and Mary Scott.

The authors also wish to give thanks to the financial supporters and contributors of services for this project: Sharon Pelton Memorial Fund, In The Beginning, Gutcheon Fabrics, Aptex, Inc., Graphic Chromatics, Kinko's in the Convention Center, Omnigrid, ProLab, Inc., Ptarmigan Press, and Lazerquick. We would also like to thank Sharon Ducey, Arts Coordinator at the Washington State Convention and Trade Center, for continuously saying "yes" to our requests.

There would not be a Curriculum Guide were it not for support by the Board of Directors and the members of the Contemporary QuiltArt Association. They have the wisdom to know a good idea when they hear one.

HOW TO USE THE GUIDE

Lesson plans are written in such a way that you should be able to grasp the core concept of the lesson, as well as easily plan for, collect for, copy, and complete that activity. A grade level recommendation is located on the upper right hand corner of each lesson. The lesson title, and description following that title, tells you what the lesson is about. The MATERIALS list is supported with a step-by-step ACTIVITY schedule. VARIATIONS are included in order that a lesson may be worked to intensify, broaden, or personalize the basic lesson.

The amount of time required for students to complete the lesson has been left up to you to determine, based on your class and whether variations are used. It is suggested that as much time be allotted, on the same day or over several days, to allow students elbow room to create. There should be enough FURTHER INFORMATION offered, with your advance preparation, to allow students to continue their research or reading should a lesson end early. Not all books are listed under this heading, so check the extensive bibliography for additional reading or picture material.

We further suggest that when and where appropriate, school community outreach be included—teachers, parents, grandparents, patrons— to assist with lessons. This assistance can be in the form of reading published stories, bringing in old quilts that have family histories, discussing their quilt or other artwork, displaying the skills used for employment (their job) and how it relates to the lesson, and surely, when manipulating or creating objects or quilts in the classroom.

Although each lesson has targeted suggested grade levels, the authors realize school districts and individual classrooms will vary in their curriculums. You decide which lessons are appropriate for your class, regardless of the suggestion. Read everything, all the lessons. VARIATIONS have been suggested which enlarge the level of learning so that older or younger students can use the same lesson. RELATED ACTIVITIES indicate other units of study which support that lesson plan.

You are free to copy pages as needed for classroom use only.

Quilts: More Than a Warm Blanket

The History of Contemporary Quilts

By Kelli D. Radcliffe

Contemporary art quilts developed from an American tradition of ornamental and expressive quilts. Yes, early American quilts were utilitarian and did keep people warm, but the making of quilts also brought disparate communities together, provided psychological support to isolated frontier women and served as memory albums. Quilts allowed women to speak symbolically when they were not encouraged to read, write or have opinions about their lives. Quilts made political statements, freed slaves, told stories and documented history. They helped to lift up the disadvantaged and change the society in which we live. Furthermore, early American quilts celebrated the stages of life: crib quilts, engagement quilts, bridal or wedding quilts and mourning quilts. They have been a woman's voice – a woman's expression of her thoughts, emotions and memories – from the beginning. Today, artists continue to use the quilt as a medium for expression. Quilts have moved from the bed to the wall and have finally become recognized as art objects.

QUILTS WERE VITAL TO THE SURVIVAL OF EARLY AMERICANS

Early American quilts were clearly utilitarian. The first immigrants to this country used every scrap of fabric they had, including worn garments (which were remade as quilt tops) and frayed quilts (which often became batting for the new bedding). As families journeyed westward, pioneer quilts served many other functions as well: padding for heirlooms (and hard wagon seats), extra protection from attack, and burial shrouds. All too often a quilt was the only casket for a deceased loved one in the treeless West.

For women homesteading far from the dry goods store, making a quilt could mean planting, maintaining and harvesting cotton. It would then mean de-seeding the cotton, spinning, weaving, dyeing, pressing, measuring, cutting and hand sewing. Such homespun fabric was often too valuable to use in a quilt, so the first use of it would be as clothing. Scraps and worn clothes would be pieced into quilt tops and bottoms and layered with de-seeded but unspun cotton. If there were other families in the area, these three layers could be quilted together by a group of women. Women came together for these "quilting bees" with the intention of helping one another. Of course, sewing was not the only help offered. The bees provided a forum for emotional and psychological support which was badly needed by the isolated pioneers and the vulnerable slaves. All women shared the experience of unending needlework, providing a common ground for friendship.

THE INDUSTRIAL REVOLUTION CHANGED THE PURPOSE OF QUILTING

It is estimated that, prior to the Industrial Revolution, women spent 12 or more hours a day sewing clothing and bedding for their families. The mechanization of spinning and weaving greatly alleviated that burden for women able to purchase fabric. The invention of the sewing machine even more dramatically changed the lives of 19th century women. With a machine, a woman could sew in a day what previously took a week or more to make. Without the necessity of extra sewing hands, more and more farm daughters were sent to work in the textile factories. (These mill "girls" later would organize the first walkouts in the labor industry!)

The growth of the textile industry also meant an abundance of fabrics for quilting. The Baltimore Album was a style of decorative quilt which relied on the profuse variety of patterns and colors available in an industrialized culture. Later in the century decorative quilts became even more important. Their display in her home gave evidence of a woman's economic status, i.e. she could afford to spend time on decorative sewing. These quilts were also displayed in community fairs and exhibitions and were a symbol of personal and community pride. It was accepted that a woman producing even purely decorative quilts was using her time well. Ironically this wasteful use of a woman's time added fuel to the suffrage movement's fire. Surely, early feminists argued, it was the development of the woman's mind that was vital, not the development of fanciful needlework.

In their self-designated role as custodians of morality, 19th century women sold, raffled and auctioned quilts to finance a plethora of reformation movements. Women raised more than two-thirds of the funds needed for the Abolition Movement. They sent an estimated 250,000 quilts to Civil War soldiers. The International Temperance Movement and the Women's Suffrage Movement were both heavily financed by quilting. Funds raised from selling quilts also supported labor reform, vocational training and child care for working women and institutions such as orphanages, schools and churches. Nor were these efforts restricted to upper and middle class white women. Sewing slaves were extremely valuable in the South, and were sometimes allowed to work for a wage. In this way African American women were occasionally able to buy their own and their families' freedom. Later, through their needlework they were able to fund relief organizations set up to assist free, but struggling, blacks.

THE DIRECTION OF EARLY 20TH CENTURY QUILTS

The future of quilting at the turn of the century seemed bright: the Arts and Crafts Movement stressed originality and simplicity, the novel ethnicities of Egyptian and Native American artforms were rediscovered, and excitement over automobiles heralded the Machine Age. These influences inspired many a quilt pattern. In 1924, the Metropolitan Museum of Art added a new wing to showcase another "new" discovery – Colonial arts and crafts. Interest in quilts blossomed. The Great Depression also contributed to the quilting "craze." Jobless and homeless, people had the time, the scraps and the need for warm quilts. The \$1000 prize offered by a Sears and Roebuck contest in conjunction with the 1933 Chicago World's Fair generated an astounding 25,000 entries.

Unfortunately, one of the outcomes of the renewed interest in quilting was the kit. Companies outdid themselves to come up with new patterns and increasingly these new patterns were produced as kits, with fabric not only prechosen but precut as well. Quilting began to seem a tedious task rather than the creative outlet it had been. In the 1940's, it was thought outdated and old-fashioned, a sad reminder of the Depression.

QUILTS CONTINUE TO EVOLVE

A rebellion against technology and the resulting dehumanization of people emerged in the 1950's and 1960's. Escape to the country for new beginnings and a simpler life became the dream. Homemade and homegrown became glamorous. Experimentation and original work was encouraged. It was felt that copying someone else's work robbed one of his or her own personal expression. Quilters began to demand that their work be judged alongside paintings and other accepted "fine" art.

The fact that fine artists were beginning to create with fabric helped. Christo was using quantities of fabric in his public "wraps," Claes Oldenburg and George Segal constructed soft sculptures and Robert Rauschenberg actually appropriated an antique log cabin quilt and incorporated it into a mixed media collage. Paintings by other fine artists included quilt motifs and influences, for example Sondra Freckelton's pattern paintings and Barton Bene's "The Fan Dance." As women gain equality in our society, women's work gains status and in the 1960's quilts began to be seen as art. After all, the quilt, like the accepted medium of collage, consolidates bits and pieces of materials into a whole. The only difference is the artist's gender.

Although there had been a few quilt exhibitions that focused on artistic beauty rather than historical or technical interest, 1971 is considered the watershed year for the Art Quilt. In that year the Whitney Museum of American Art in New York City showed antique quilts from the collection of Jonathan Holstein and Gail van der Hoof in an exhibit titled "Abstract Design in American Quilts." Quilts (albeit antique) as art had arrived. The exhibit travelled America and Europe for four years and was seen by tens of thousands of people. Quilts would never again be seen in the same old way.

Certainly quilts are made for a variety of reasons and some are still made to be used as bedcovers, but the art quilt is not a departure from traditional works. Though art historians have not valued quilts as an art form, the more we study women's history, the more we see that even a hundred years ago women used fabric like artists use paint: to create visual images and messages. In the program to the exhibit "New Works: Makers, Methods, Meanings," Cherry Haisten writes, "... women's ways of experiencing and working, as well as the materials and mediums they choose, are not only valid but important contributions to the culture at large. Recognizing them, accounting for them, and taking them seriously is necessary if we are to piece together an accurate picture of the whole spectrum of creative endeavors in this country." In the effort to promote understanding of art quilts, Contemporary QuiltArt Association has mounted this exhibit, installed an Education Wall, and prepared this Curriculum Guide. We hope you will use and enjoy these lessons in your classrooms.

PATTERNING AND QUILTS

Students use quilts to find and recognize repeating patterns.

MATERIALS

quilts with repeating patterns (ask parents if one can be brought in for a day)
2" construction paper squares, variety of colors, 20-25 per student

ACTIVITY

- Students look at a traditional quilt.
- Find repeating patterns in the quilt. Label repeating patterns. For example, a checkerboard border is an A-B pattern.
- Using the construction paper squares, duplicate the pattern, change it, make one up.

VARIATION #1:

- Construction paper blocks can be glued onto larger squares and mounted on butcher paper to make a paper quilt. (See "Soldier's Quilt" reference below.)

VARIATION #2

- Pictures of quilts can be used instead of an actual quilt.

DISCUSSION

Can you find that same pattern elsewhere in the room?

What change could you make in this quilt to make a different pattern?

Can you describe other patterns in the quilt, in other ways than with the A-B language?

Do you think this pattern began before the quilt? Why or why not?

RELATED ACTIVITIES

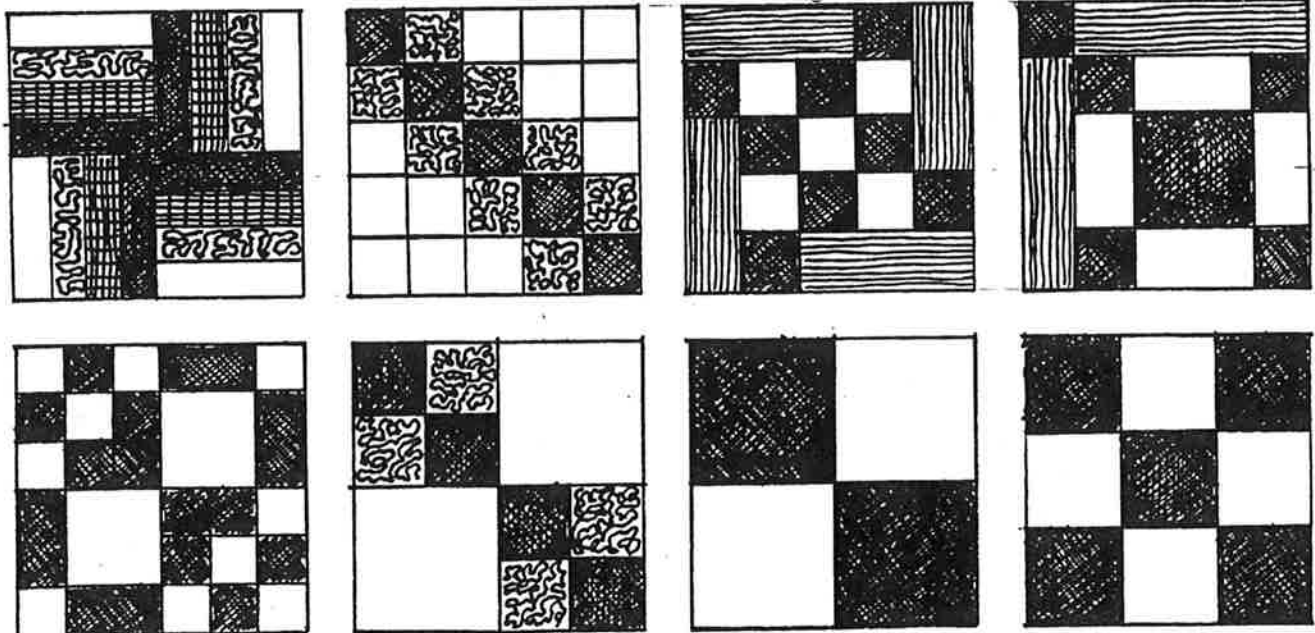
Math - Checkerboard Pattern

Science - Looking at Colors

Social Studies - British Soldier's Quilt

FURTHER INFORMATION

Treasury of American Quilts, Cyril B. Nelson and Carter Houck.



STORYTIME

Students practice listening, critical thinking and speaking skills while hearing and discussing a story about a quilt.

MATERIALS

The Quilt Story by Tony Johnston
quilt (optional)

ACTIVITY

- Teacher reads The Quilt Story to class, and invites discussion afterward.

VARIATION #1:

- Students design their own ideal personalized quilt on paper with crayons. Have them work their name into it. Encourage them to use colors and symbols important to them.

VARIATION #2

- Each student gets a chance to wrap up in a quilt and receive affirmations from the class.

DISCUSSION

Do you have a quilt at home? How does it make you feel?
How did Abigail's quilt make her feel?
Who else was comforted by the quilt in the story?
Why are quilts comforting?
When can a quilt not be comforting? Why?

RELATED ACTIVITIES

Math - Checkerboard Pattern
Science - Looking at Color (especially Variation #2)

FURTHER INFORMATION

See bibliography for additional picture book suggestions.

QUILTS AS HISTORICAL RECORD

Students practice reading and creative writing skills, then recording their own (real or fanciful) experiences, just like the character in the book does.

MATERIALS

The Josefina Story Quilt, Eleanor Coerr

photocopies of a variety of quilt block patterns, see books listed below

lined newsprint (leave room for writing and illustration)

pencil

crayon

optional: scissors and glue

ACTIVITY

- Students read The Josefina Story Quilt to themselves or teacher can read aloud.
- They choose a quilt block and write a story or memory inspired by it.
- Name the story and illustrate it with the block. Most simply, they can color, cut out and glue the photocopy in place.

VARIATION #1:

- Students can choose several blocks and write stories suggested by each of the patterns. Each block and story would be on one page, which would then all be bound together, making a visual and written journal.
- Or, each student's story can be bound together in a class album.

VARIATION #2

- Students can draft their quilt blocks, using the photocopies as a guide. See Related Activities below.

DISCUSSION

How do people today record memories?

Do you think it is important to remember people, places, experiences? Why or why not?

How does the name of your story compare with the traditional name of the block?

RELATED ACTIVITIES

Math - Drafting a Quilt Block

Social Studies - A Bird's Eye View

Science - Your World On Cloth

FURTHER INFORMATION

The Patchwork Quilt Design and Coloring Book, Judith LaBelle Larsen and Carol Waugh Gull.

Eight Hands Round, Ann Whitford Paul.

Quilt coloring books are a good source of reproducible block diagrams and are available through Dover catalogs.

COTTON AND POETRY

Students study a poem about working cotton, the actual raw material from which the fabric for quilts is made. Students will also try using their work experience to write poetry.

MATERIALS

Working Cotton, Sherley Anne Williams
writing materials

ACTIVITY

- Read the book. Discuss its poetic quality: rhythm, metaphors, dialect.
- What are other jobs kids do? Act out the jobs; note the rhythm inherent in work.
- Students write a poem about one of their chores. Try to use rhythm, metaphors, dialect.

VARIATION

- Make a classroom book of poetry.

DISCUSSION

Do you have any cotton on your body right now? Read the labels on each others' clothes and see. At your house?

What are the steps from when the cotton was picked by someone like Shelan, to the jeans or shirt you are wearing? (combing the fibers, spinning into thread, weaving into fabric, cutting and sewing...)

What if there was no cotton? Do you know of other fibers we use for clothing? Do you know where they come from? (Linen from flax plants, silk from caterpillars, wool from sheep or other animals, rayon from trees, polyester from oil products)

Would you like to have Shelan's job?

RELATED ACTIVITIES

Science - Fabric Up Close and In Nature

FURTHER INFORMATION

Hearts and Hands, Pat Ferrero, Elaine Hedges and Julie Silber, pages 30-34 and 41-48.

Lyddie, Katherine Paterson

Samantha Learns a Lesson, Susan S. Alder

FRIENDSHIP BLOCKS

Students practice penmanship while writing verses of friendship or affection on muslin squares. This could be done around Valentine's Day or Mother's Day.

MATERIALS

muslin squares; backed with freezer paper
lined paper

tape

pencils

permanent pens (Pigma SDK, Niji Stylist Permanent II, extra fine Sharpie)

ACTIVITY

- Before class, teacher irons plastic side of freezer paper to muslin. This stabilizes the fabric and makes it easier to write on. Cut the stabilized muslin into 8" squares.
- Students brainstorm appropriate verses: "Remember me, when this you see..." and "Roses are red..." are examples.
- Practice writing the verses and signature in best penmanship on paper.
- Tape the best example to window, with the muslin/freezer paper square over it, muslin side out.
- Trace the words onto the muslin with permanent pen.

VARIATION #1:

- For paper border, leave freezer paper on and glue or staple construction paper strips to the four sides.

VARIATION #2

- For fabric borders, remove the freezer paper.
- Cut 12" fabric squares, center muslin on this square.
- Glue or sew down.

VARIATION #3

- These friendship blocks can be joined together into a class quilt. See below for books to explain that process.

DISCUSSION

One 18th century quilt making tradition was the friendship block: people signed fabric squares to be included in a quilt made for a specific person, maybe a family moving away or a favorite school-teacher.

Do these friendship blocks remind you of anything? Autographs? School annuals?

How do we tell people we love and/or appreciate them?

What is friendship?

Can you think of other ways we express grief, loss, celebration?

RELATED ACTIVITIES

Language Arts - Quilts As Historical Record

FURTHER INFORMATION

Treasury of American Quilts, Cyril B. Nelson and Carter Houck

Lap Quilting With Georgia Bonesteel, Georgia Bonesteel

Quilts! Quilts!!! Quilts!!!, Diana McClun and Laura Nownes

Friendship's Offerings, Susan McKelvey

Remember Me: Women & Their Friendship Quilts, Linda Otto Lipsett

FROM WORDS TO ART

Students see how the written word can act as a springboard for visual expression. They will choose a passage from their own journal and illustrate it with fabric collage.

MATERIALS

pictures of quilts that express emotions, see books listed below
 construction paper glue
 fabric scraps students' journals
 scissors

ACTIVITY

- Look at expressive quilts. Design elements to notice are color, line, texture, pattern, dark and light, shape and space.
- Discuss how the artists' choices about color, line, shapes and symbols express something. For example, the use of red and black with straight lines and sharp angles sends a completely different message than pastel colors, curved lines and circles.
- Have students choose a passage from their journal that evokes strong feelings.
- Ask them to identify those feelings.
- Using construction paper as a base, cut and glue scraps of fabric in such a way that those emotions are expressed in the collage.

VARIATION #1:

- Students trade journal passages and create a collage expressing someone else's experience.

VARIATION #2

- Students look at an art quilt. Imagine what the artist wanted to express. Write a journal entry that could have inspired the piece.

DISCUSSION

Give examples of soft curves vs tight curves, obtuse angles vs acute angles, floating shapes vs connecting shapes, jagged lines vs straight lines...

What kind of colors make you feel happy? Sad? Angry? Bored? Embarrassed?

What kind of shapes did you choose? Lines? Symbols? Why?

Can one person recognize and empathize with another person's feelings?

Does all art evoke an emotional response?

RELATED ACTIVITIES

Science - Looking at Color, especially discussion questions & Creating Color, especially Variation #2.
 Language Arts - You Be The Artist & Contemporary Fiber Artists.

FURTHER INFORMATION

Design Basics, David A. Lauer

Story Quilts: Telling Your Tale in Fabric, Mary Mashuta

Quilts made in response to 1991 Oakland/Berkeley fires may be seen in American Quilter, summer 1991, Vol. VII, No. 2, pages 30-33; and in Threads, September 1994, No. 5, pages 70-73.

Inspirations: Stories About Women Artists, Leslie Sills. Pg. 40-51 about Faith Ringgold and her story quilts.

The Quilt: Stories from the NAMES Project, Cindy Ruskin.

ORAL HISTORY

Students practice interviewing and recording skills to discover the history that reposes in their family members and neighbors.

MATERIALS

The Quilters: Women and Domestic Art, Patricia Cooper and Norma Bradley Allen
writing or recording materials
subject for interviewing

ACTIVITY

- Teacher reads aloud passages of The Quilters: Women and Domestic Art, a collection of lifestories from Southwestern homesteading quiltmakers, giving students examples of what an oral history is like.
- Students prepare interview questions. The first few questions should be related to whatever fiber art the subject is involved with. For example: "What fiber art do you do? When did you learn to do that kind of art? Why do you do it? Understanding that students will be more engaged in the process if the questions reflect their interests, these questions can act as a jumping off point for other topics. For examples, "Tell me about a date you went on," or "What was your first car?" or "When you were 14, what drove your parents nuts?" Everyday life, even as recently as 20 years ago is history.
- Students find a subject who is somehow involved with fiber arts: quilting, knitting, sewing, paper making, weaving, beading, embroidery... (Teachers may want to compile a list of people for students unable to find a subject to interview on their own.)
- As homework, students conduct the interviews, recording them either with paper and pencil or with a video or tape recorder.
- Using these notes, the students prepare and present an oral history of their chosen subject to the class. They can use storytelling, video, slides, music.

DISCUSSION

What interested you about your subject? Did it have anything to do with their chosen art form?
Who taught your subject to do this type of art work? How long did they do this work? Do they still do this type of art work?
Did they have stories regarding their art when they were younger?
What is the same for teenagers of 20, 30 40 years ago? What is different?
Did anything your subject say surprise you? Why?
Why might this be an important exercise?

RELATED ACTIVITIES

Language Arts - Quilts As Historical Record
Social Studies - Washington Quilt Heritage & Quilts and Patchwork Around the World

FURTHER INFORMATION

The Quilters: Women and Domestic Art was the basis for a musical called The Quilters. It is regularly performed by community theaters. The play, including music, is also available.
Women and Their Quilts, Nancyann Johanson Twelker.

YOU BE THE ARTIST

Students are challenged to imagine the motivation and inspiration of a quilt artist, and to express that imagined motivation clearly and succinctly in the format of an artist's statement.

MATERIALS

writing materials

samples of artist's statements, see Appendix

pictures of art quilts, see books listed below

ACTIVITY

- Teacher explains the main points of an artist's statement: inspiration, meanings, process, in short anything that helps the viewer understand the layers of information in a piece of work.
- Students read samples of artists' statements.
- Each student is given a picture of an art quilt to examine. Remember that everything in the quilt represents a choice the artist made. Question why they made the choices they did. By studying the work, the student tries to determine what the artist may be expressing.
- Write an imagined statement for the piece.

VARIATION #1

- Students write artist's statements for their own artwork.

VARIATION #2

- Two students view the same quilt. Only one is given the artist statement to read.
- Each student writes their personal response to the quilt.
- Compare their interpretations.

DISCUSSION

Can one person recognize and empathize with another person's feelings?

How does the artist's use of color and shapes affect your perception of her or his intended meaning?

What is the point of an artist's statement? Is it necessary? Should the work speak for itself? Why?

How does reading an artist's statement affect your understanding of a work of art?

RELATED ACTIVITIES

Language Arts - From Words To Art & Contemporary Fiber Artists

Science - Creating Color, especially Variation #2

FURTHER INFORMATION

Visions: Quilts of a New Decade, Quilt San Diego (plus other books from the Quilt San Diego shows)

Nancy Crow: Quilts & Influences, Nancy Crow

New Quilt 1 and New Quilt 2, Dairy Barn: Quilt National

The Fine Art of Quilting, Vicki Barker & Tessa Bird

The Art Quilt, Penny McMorris & Michael Kile

Celebrating the Stitch, Barbara Lee Smith

CONTEMPORARY FIBER ARTISTS

Students practice interview and writing skills as they prepare a profile of a local contemporary fiber artist.

MATERIALS

writing materials

pictures of art quilts, see books listed below

ACTIVITY

- Have available to students some of the books listed below to familiarize them with the art quilt and design language.
- Invite a local fiber artist to speak to the class. This artist may be recruited from the school community or contact Contemporary QuiltArt Association at PO Box 95685, Seattle, 98145-2685.
- Brainstorm interview questions.
- Artist visits class, shows work and answers questions.
- Students write a profile of the artist. They should address the person's growth and development as an artist, but can choose to refer to her (or his) body of work, or focus on one particular work.

VARIATION #1

- If inviting an artist to the class is not feasible, students can pick an artist from the books listed below to research.
- Prepare paper on that artist and her (or his) work.
- Design a quilt in the style of the artist.

VARIATION #2

- Students write a prospectus for submittal of this paper to a magazine. Writer's Guidelines can be obtained by request from magazines.

DISCUSSION

Why did you choose the artist you chose? What attracted you to his or her work?

Do you know any artist? What kind of work do they do?

How does fiber differ from other media?

What do you think about art? Is it important?

RELATED ACTIVITIES

Language Arts - You Be The Artist & Oral History

Social Studies - The Art of Social Commentary

FURTHER INFORMATION

Design Basics, David A. Lauer

Visions: The Art of the Quilt, Quilt San Diego

Nancy Crow: Quilts & Influences, Nancy Crow

New Quilt 1, and New Quilt 2, Dairy Barn: Quilt National

Due to the contemporary nature of this exercise, periodicals will be most valuable:

American Quilter

Quilting International

Fiber Arts Magazine

QUILTS IN LITERATURE

Universal themes of love and loss and self-discovery are introduced at the same time students gain an awareness of quiltmaking's presence in everyday life.

MATERIALS

see books suggested below

ACTIVITY

- Brainstorm with class all books or stories they've read with a quilt reference in it. Perhaps class can keep a list going throughout the year.
- Students are divided into groups. Each student in the group reads a different book, either from the books listed below or from the ongoing list the class is compiling.
- Group meets to discuss what they have read, especially looking for similarities and differences. See DISCUSSION.
- Group prepares a project to show what they have gained from the readings. Could be an oral or written report, dramatic presentation, even a quilt.

DISCUSSION

Was the book you read fiction or nonfiction?

Did quilts figure heavily in the story?

Were quilts used as a metaphor? For what? And if so, why would the author choose quilts? What is special about them?

What were the themes in each book? How were those themes similar or different?

FURTHER INFORMATION

How To Make An American Quilt, Whitney Otto

In Search of Our Mothers' Gardens, Alice Walker, Title essay

A Patchwork of Pieces: An Anthology of Quilt Stories 1845-1940, Cuesta Benberry and Carol Crabb

A Quilter's Wisdom: Conversations With Aunt Jane of Kentucky, Eliza Calvert Hall

Letters From a Woman Homesteader, Eleanor Pruitt Stewart

Pioneer Women: Voices From the Kansas Frontier, Joanna Stratton

Women's Diaries of the Westward Journey, Lillian Schlissel

A New England Girl's Childhood, Lucy Larcom

No Time on My Hands, Grace Snyder

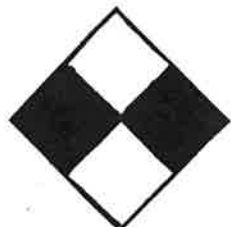
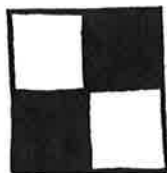
Nell's Quilt, Susan Terris

The Color Purple, Alice Walker

The Quilters: Women and Domestic Art, Patricia Cooper and Norma Bradley Allen

The bibliography will have additional suggestions.

CHECKERBOARD PATTERN



Students fold and prepare a common quilt block unit, the checkerboard 4-patch. They work together to arrange them into a checkerboard pattern.

MATERIALS

pre-cut 4" squares of white or light colored paper, one per student

pre-cut 2" squares of dark colored fabric, 2 per students

glue sticks

large piece of butcher paper

ACTIVITY

- Demonstrate how to fold their 4" square to show 4 equal squares.
- Each student takes two, 2" fabric squares and glues them onto their 4" square to make a checkerboard.
- Working together, students make a class "quilt" by gluing their squares blocks together in a checkerboard pattern onto the butcher paper. Students decide on dimensions, layout, and how to deal with leftover blocks.

VARIATION #1

- Class "quilt" can be made with straight rows or *on point* (diagonal rows).

VARIATION #2

- Give students 2" squares of construction paper, colored wrapping papers, or colored magazine pages instead of fabric.

VARIATION #3

- Students may design and color their own 2" squares.

DISCUSSION

Based on the number of quilt blocks in the class, what other dimensions could the quilt be?

How many rows are in the class quilt? How many squares in each row?

Are there ways to put the squares together which don't make a checkerboard? (Discussion of pattern.)

RELATED ACTIVITIES

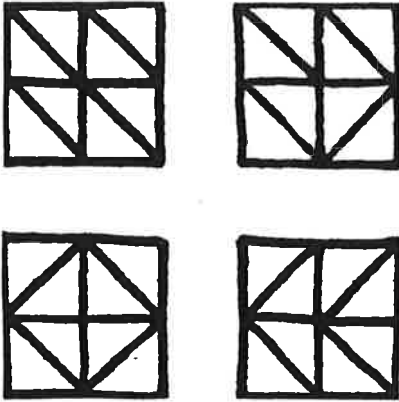
Language Arts - Storytime

Language Arts - Patterning and Quilts

Social Studies - A British Soldier's Quilt and Borderline Art

FURTHER INFORMATION

Treasury of American Quilts, Cyril I. Nelson and Carter Houck, for pictures of historical quilts with checkerboard patterning in them.



QUILT DESIGNS WITH 8 TRIANGLES

Many traditional quilt designs are made of right triangles. Students design a simple block using 8 triangles and make a paper quilt.

MATERIALS

8" square of blank paper, one per student
4" squares of colored paper, two dark and two light per student
butcher paper
scissors
glue stick

ACTIVITY

- Fold each 4" colored square in half diagonally. Cut along the fold to create congruent right triangles.
- Play with arranging the resulting triangles on the 8" square so that your design fills the blank paper without any gaps or overlaps. Create as many different looking blocks as you can.
- Record the variations. (For younger students, draw variations on the board. Older students can sketch their variations on paper.)
- Choose your favorite and glue it down.
- Most quilt block designs have names; some have more than one. Name your block.
- Arrange all the blocks together on butcher paper into a class paper quilt.

VARIATION #1

- For younger children, precut the triangles.

VARIATION #2

- Use colored magazine pages, wrapping paper, origami paper or fabric instead of colored paper.

VARIATION #3

- Older students may cut one 4" colored square into four triangles instead of two, enabling them to create more complex quilt block designs.

DISCUSSION

Look at a book which shows many quilt blocks. Can you find your block? What is its traditional name? Does it have a traditional name?

Discuss the fractions $\frac{1}{8}$, $\frac{4}{8}$, $\frac{1}{4}$, and $\frac{1}{2}$.

Did anyone create a design which has reflection symmetry? Rotational symmetry?

What kinds of shapes can you create by combining triangles? Larger triangles, squares, rectangles, parallelograms, trapezoids, hexagons? How can you make a hexagon?

RELATED ACTIVITIES

Science - Looking at Color

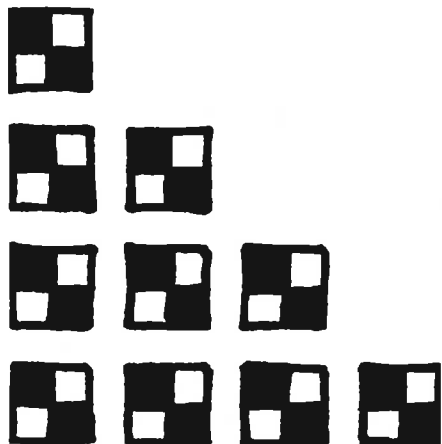
Language Arts - Patterning and Quilts

Social Studies - Washington Quilt Heritage

FURTHER INFORMATION

Small Folk Quilters, Ingrid Rogler

Eight Hands Round: A Patchwork Alphabet, Ann Whitford Paul



EXPLORING THE FRACTION $\frac{1}{2}$

Students fold and color a common quilt block, the checkerboard 4-patch, then arrange them together to understand various ways of writing ratios which are equivalent to one-half.

MATERIALS

Precut 4" squares of white paper, one per student
Crayons, colored pencils, or felt-tip markers
glue stick
large piece of butcher paper

ACTIVITY

- Fold precut 4" squares in half, then in half again to obtain 4 smaller squares.
- Color two of the squares solid colors in a checkerboard pattern, as shown.
- Draw designs in the remaining two squares.
- Teacher writes the ratio $\frac{1}{2}$ at the top of the butcher paper, then asks one student to bring their block up and glue it underneath this fraction. It is easy to see that 2 out of the 4 squares in this block are solid and that 2 are not. Have the student write the ratio $\frac{2}{4}$ next to the block which shows how many of the squares are solid out of the total number of 1" squares: $\frac{2}{4}$.
- Next, two students bring their blocks and glue them side by side under the first one. Have the students count the number of solid 1" squares and the total number of 1" squares. Ask them to write this as a fraction: $\frac{4}{8}$.
- Next, three students bring their blocks up, and so on until all the blocks are up. The result will be a representation of fractions or ratios which are all equivalent to one-half.

VARIATION #1:

- Students can fold their 4" square in half diagonally, resulting in four triangles. Color two nonadjacent triangles solid colors.

VARIATION #2

- Students choose 2 each of 2 fabrics from an assortment of precut 2" fabric squares, then arrange and glue their 4-patch.

VARIATION #3

- Create equivalencies for $\frac{1}{4}$ instead of $\frac{1}{2}$.

DISCUSSION

What patterns do you see in the fractions which represent one-half?

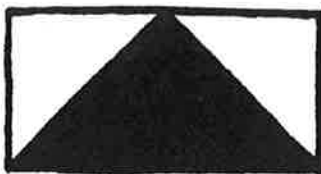
Can you find examples of this type of patterning in advertising? Clothing? Quilts? Other artwork?

RELATED ACTIVITIES

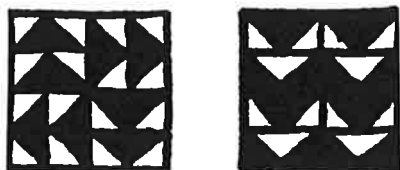
Math - Checkerboard

Math - Flying Geese

FLYING GEESE QUILT DESIGN



The basic unit of the Flying Geese quilt pattern is a large right triangle within a rectangle. Students use this unit to design an original quilt.



MATERIALS

glue stick
scissors
crayons, colored pencils, or felt-tip markers
blank sheet of paper, one per student
photocopies of Flying Geese units, one per student,
see Appendix

ACTIVITY

- Cut photocopied page into 15 rectangular Flying Geese units. (For younger students, precut the units.)
- Manipulate the 15 units into various arrangements. Select one. Secure with glue stick on blank paper.
- Color as desired. (The page can be colored first, then cut.)

VARIATION #1

- Provide students with triangle units (both the large and the smaller ones) precut from assorted fabrics. Once the rectangular Flying Geese units are arranged and secured on paper, students may choose fabric triangles to glue in place rather than coloring the design.

VARIATION #2

- Older students may cut apart the large triangle and two smaller ones within the unit, or use precut fabric triangles as described in #1, and arrange them to make other designs.

DISCUSSION

Is there a way to put the units together so that the large triangles form a square? The small triangles?
Is there more than one way?

What other shapes are formed when triangles are joined? (Parallelogram, large triangle)

Discuss the symmetry within the original unit. How many ways are there to combine two units such that the resulting block has symmetry?

Can you put together 4 units to make a pinwheel? Discuss rotational symmetry.

How can you arrange the units to look like brickwork?

Can you find art quilts that use these shapes and patterns?

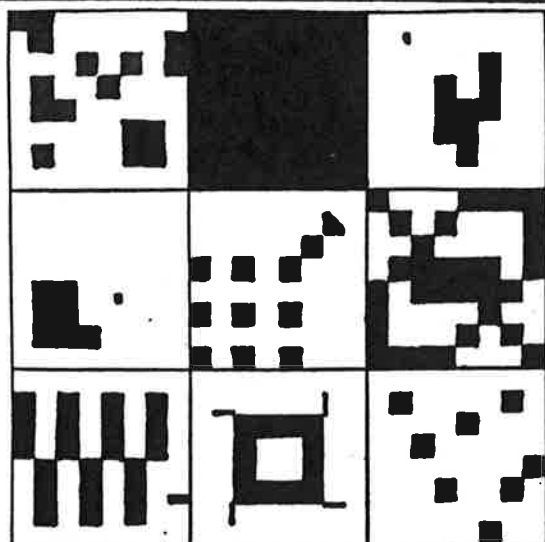
RELATED ACTIVITIES

Math - Exploring the Fraction $\frac{1}{2}$ & Fraction Quilt

Social Studies - Borderline Art: Borders for Story "Quilts"

FURTHER INFORMATION

Sam Johnson and the Blue Ribbon Quilt, Lisa Campbell Ernst, for Flying Geese pattern in a quilt.
Treasury of American Quilts, Cyril I. Nelson and Carter Houck, for other triangular quilt designs.



FRACTION QUILT

A 9-patch quilt block is subdivided and colored to represent fractions from $1/2$ to $1/9$.

MATERIALS

6" x 6" block drawn on graph paper (4 squares to the inch), divided into 9 - 2" squares-- see reduced example at left

photocopies of the 6" x 6" block with graph paper lines visible, one per student

felt-tip markers, colored pencils, or crayons

butcher paper (optional)

ACTIVITY

- Choose one of the nine blocks and color it entirely with one color. This will be the foreground for each of the other blocks.
- Choose another block and color $1/2$ of the 64 small squares with the foreground color (The 32 small squares may be chosen randomly or in any pattern desired.)
- Choose another block and color $1/3$ of the 64 small squares with the foreground color; then $1/4$ of another, $1/5$ of another, and so on to $1/9$.
- Color the background of each block as desired.
- (Arrange the 6" x 6" blocks together on a larger sheet of butcher paper to make a paper quilt.)

VARIATION #1

- Use a different pattern of fractions for coloring the blocks; for examples, $1/3$, $2/3$, $3/3$, $1/4$, $2/4$, $3/4$, $1/5$, $2/5$, $3/5$; or $1/1$, $1/2$, $1/4$, $1/6$, $1/8$, $1/10$, $1/12$, $1/14$, $1/16$.

VARIATION #2

- For younger students, approach this as an activity in division rather than a fraction activity.

VARIATION #3

- Extend this activity by looking at pictures of both traditional quilts and contemporary art quilts made entirely from equal-sized squares.

DISCUSSION

Which fractions were easy to determine? Why? Which were more difficult? Why? How did you determine these?

Look at all the blocks which represent one-fourth. How many ways are there to color $1/4$ of the block?

Because there are 64 small squares and we need to color 16 of them to represent $1/4$, we have 16 decisions to make. There are 64 choices for the 1st, 63 for the second... down to 49 choices for the 16th. The fundamental counting principle says to multiply all the choices together and then divide by 4 (factorial) or 24 (all the ways to arrange 4 things) because the order in which we color them doesn't matter. (Therefore, there are 4.25889×10^{26} possibilities.)

Did anyone color repeating patterns? Do you see any traditional quilt patterns?

RELATED ACTIVITIES

Social Studies - A British Soldier's Quilt

FURTHER INFORMATION

Treasury of American Quilts, Cyril I. Nelson and Carter Houck, for pictures of historical quilts using equal-sized squares.

Quilt With The Best, Carol Cook Hagood, for pictures of work of contemporary quilt artist Jan Myers-Newbury.

MEASURING FABRIC SHRINKAGE

Different types of fabrics have different rates of shrinkage. Students measure squares of fabric before and after wetting and drying them to observe the differences.

MATERIALS

A variety of new fabrics cut into 2" squares and labeled as to content with permanent pen, one per student. Some possibilities might be: 100% cotton muslin, polyester/cotton blend, polyester, rayon, wool, terry cloth, cheesecloth, sheeting. (Check remnant bins at fabric stores, ask for sample swatches, or have parents send in fabrics.) **No previously washed fabric!**

hot water

rulers

ACTIVITY

- Measure your square and write down its dimensions.
- Saturate your square in hot water.
- Lay square to dry on a windowsill, radiator, or table.
- When dry, measure the dimensions and compare to the original dimensions.

VARIATION #1

- Wash half of the fabric in hot water and the other half in cold. Compare shrinkage to original. Check water temperature.

VARIATION #2

- Examine the different fabrics under a magnifying glass. Compare the density of the thread. Can you count the threads per inch on some of the fabrics?

DISCUSSION

Which fabrics shrink the most? Which ones shrink the least? Why do you think this happens?

By how much did the area change? Is this significant? Why?

Is it important to wash all fabrics before you use them in art?

What about your clothes? Have you ever washed oversized clothes, and then they fit better?

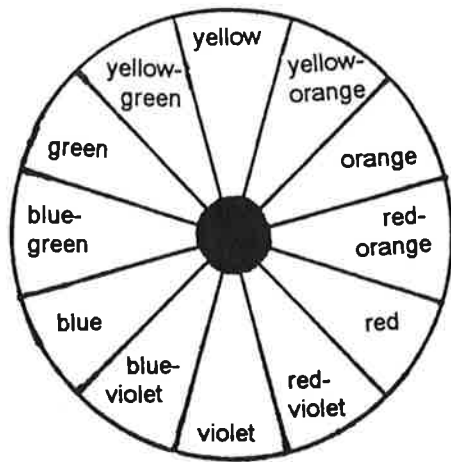
Will fabric continue to shrink in subsequent washings?

What might happen if you did not wash fabric before using it in a quilt? If the final quilt is made up of 1000 2" squares, what would be the intended quilt dimensions? With shrinkage, what would the dimensions become? By how much would the area of the entire quilt change?

RELATED ACTIVITIES

Science - Fabric: Up Close and In Nature

This math unit on shrinkage is an excellent tool when applied to another unit in the guide that uses fabric as a material component.



MAKING A COLOR WHEEL

Quilters sometimes use a color wheel to make color choices for their quilts. Using compass and protractor, students draw and then color the 12 color wheel.

MATERIALS

paper and pencil
compass
protractor, ruler
crayons, colored pencils, felt-tip markers

ACTIVITY

- Use a compass to draw a circle which fills the page. Draw a very small circle using the same center.
- Using the protractor, divide the large circle into 12 equal wedges.
- Locate 3 wedges which are equally spaced around the circle. Color one red, one blue, and one yellow. These are *primary* colors.
- Locate the wedge halfway between yellow and blue, and color it green. Locate the wedge halfway between red and blue, and color it violet. Locate the wedge halfway between red and yellow, and color it orange. These are *secondary* colors.
- Use red-violet to color the wedge between red and violet, red-orange for the wedge between red and orange, yellow-orange for the wedge between yellow and orange, etc. The resulting 6 colors are *tertiary* colors.

VARIATION #1

- Quilters often make exact templates, or pattern pieces, of the shapes in their quilts, and use the templates to mark and cut their fabric.
- Make a template by tracing one of the wedges onto another sheet of paper. Cut it out. Test to see if all twelve wedges are truly equal by placing the template on top of each of wedge.

VARIATION #2

- Glue the wedge template created above onto heavy paper or light cardboard. Cut it out. Draw around the template onto fabrics in primary and secondary colors. Glue the fabric wedge into its correct position on the color wheel.

VARIATION #3

- Use the wedge template to draw other designs and color them, or cut colored wedges from assorted fabrics using the template and arrange them into a pleasing design on paper. Glue in place.

DISCUSSION

What is the diameter of your color wheel? What is its circumference? What is its area?

What is the measurement in degrees of each wedge?

Can you find pictures of quilts which appear to seriously consider choices in color? Maybe a quilt using predominately secondary or tertiary colors?

(continued)

How does the choice of color affect you when completing an art or personal project? Colors you choose when trying to get a point across?

What about when you choose your clothes, or make an assumption regarding a product or food?

RELATED ACTIVITIES

Science - Properties of Color

Math - Exploring Color Harmonies

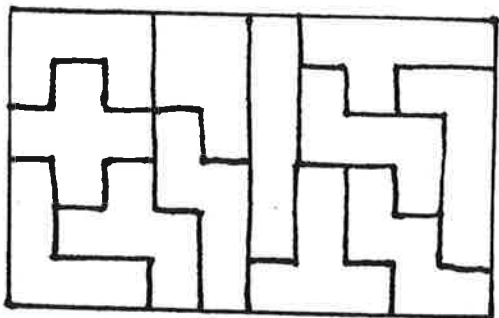
FURTHER INFORMATION

Elements of Color, Johannes Itten

Color for Quilters II, Susan McKelvey

Design Basics, David Lauer. Pages 226-257, especially those pages specific to the properties of color on page 226, 230 and 231.

CONSTRUCTING with PENTOMINOES



Quilts are often made of squares placed side by side. Working individually and in groups, students explore ways of putting pentominoes together and discover the interesting patterns which can develop.

MATERIALS

photocopies of pentominoes on card stock (or glued to stiff paper), one set per student, see Appendix
scissors
crayons, colored pencils, or felt-tip markers

ACTIVITY

- Color or draw in each of the twelve pentominoes as desired.
- Arrange the pentominoes into a rectangle that is 6 squares by 10 squares. Now try another arrangement.
- Quilters often use shapes which tessellate over the surface of a quilt. Each of the pentominoes will tessellate in a repeating pattern. Working in groups of 4-6, students pool their pentominoes and attempt to interlock each shape so that it tessellates.

VARIATION #1

- Glue precut squares of fabric, wrapping paper, or colored magazines pages to each square.

VARIATION #2

- Draw or color simple quilt blocks into each square, such as Broken Dishes, Diamond in a Square, or 4-Patch.

VARIATION #3

- Have students discover the 12 pentominoes by finding all the ways that 5 squares can be put together.

DISCUSSION

There are over 2,000 ways of arranging the pentominoes into a 6 x 10 rectangle. How many did you find?

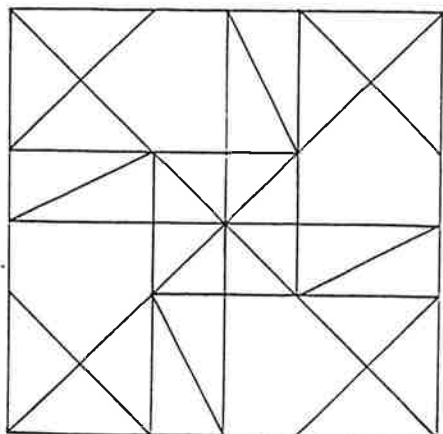
One of the pentominoes has a different perimeter from all the others. Which one is it? Explain why?

RELATED ACTIVITIES

Social Studies - Quilts and Patchwork Around the World, especially tifaifai and Amish patterns. This unit is an excellent tool when used in conjunction with a Science exercise in color or monoprinting.

FURTHER INFORMATION

The Quilter's Album of Blocks and Borders, Jinny Beyer, especially for variation #2



DRAFTING A QUILT BLOCK

Traditional patchwork blocks are based on grids with regular divisions; such as 4-patch or 9-patch. Students examine a quilt block, determine the grid on which it is based and enlarge that block.

MATERIALS

transparencies made from Pinwheel Star block and 6" grid *
photocopies of small Pinwheel Star block, at left, one per student

photocopies of 6" grid, one per student *

pencil, protractor, ruler

*see Appendix

ACTIVITY

- Give each student a copy of the small block shown above. Using an overhead projector, project Pinwheel block transparency in front of class. In small groups, have students discuss and decide on placement and size of square grid lines for drafting the block.
- After discussion, teacher superimposes grid transparency on to block. Discuss with class how a quilter then could use these grid lines to enlarge the small block to make a typical 6" block.
- Give each student a copy of the 6" square grid.
- Students enlarge the small block onto the 6" grid.
- This activity can be extended by using other quilt blocks from the Appendix.

VARIATION #1

- Using graph paper, draft the block in different sizes. For example, the above block could be drafted in a 4x4 grid, 8x8 grid, etc.

VARIATION #2

- Draft 4 blocks adjoining each other on graph paper and color the resulting design.

VARIATION #3

- Create an irregular grid and draft the block onto it. To make the grid, use the same number of horizontal and vertical grid lines, but place them wherever desired, rather than at regular intervals.

DISCUSSION

Are there any similar shapes within this block? If so, what is the ratio of their sides?

Are there any congruent shapes? (Some of them may be rotated.)

Does this block contain symmetry? What kind?

Without using a ruler to measure it, calculate the length of the hypotenuse of each right triangle.

What are the measurements of the various angles in this block?

Compare the perimeter and area of the small block to the 6" enlargement.

Compare the perimeter of each triangle shape in the small block to the 6" block. How do they compare with each other and with the perimeters of the blocks?

Compare the areas of each triangle shape in the small block to those in the 6" block. How do they compare with each other and with the areas of the blocks?

RELATED ACTIVITIES

Language Arts - Quilts as Historical Record

FURTHER INFORMATION

The Quilter's Album of Blocks and Borders, Jinny Beyer

Quilt With the Best, Carol Cook Hagood. For examples of the irregular grid variation, see chapter on Margaret Miller, variation #3.

EXPLORING COLOR HARMONIES

Various color harmonies can be obtained by locating a diameter, an isosceles triangle, an equilateral triangle, and a rectangle on the Itten color wheel. Using a compass, students draw the triangles and rectangles and use them to explore these color harmonies.

MATERIALS

color wheel created in MATH - Making A Color Wheel activity

paper, 2 sheets per student

pencil, compass and straightedge or ruler

ACTIVITY #1

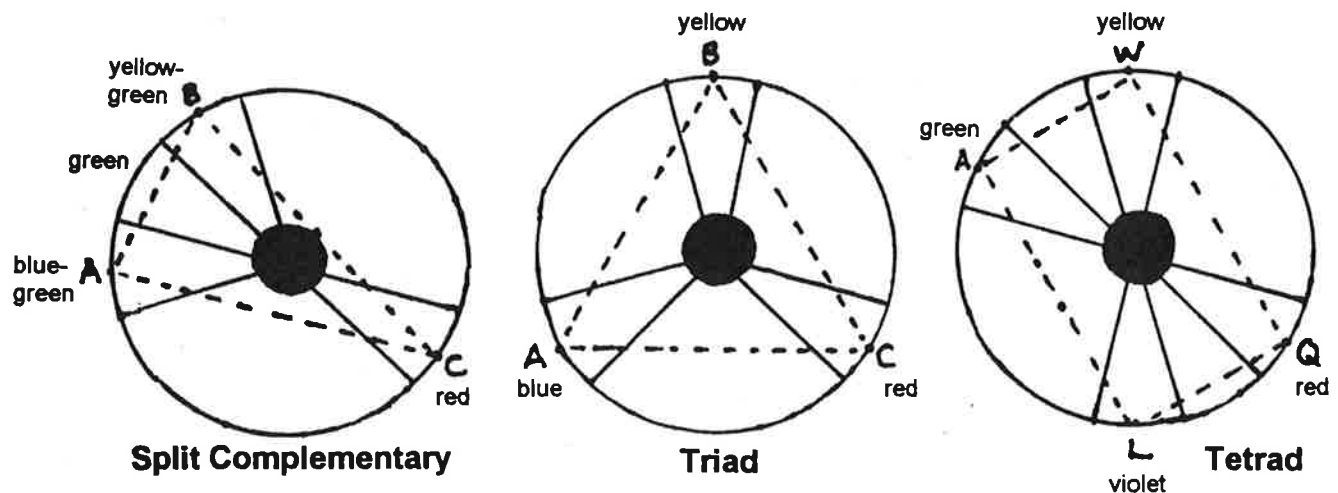
Two colors directly opposite each other on the color wheel are called *complementary* colors. Place your pencil in the center of the color wheel with one end on red to find red's complement, green. Rotate the pencil to discover the various complementary pairs and list them.

A color and the two colors on either side of its complement are called *split complementary* colors. For example, red, blue-green, and yellow-green form a split complementary color harmony. Place a mark at the center of the arcs of these three wedges. Lightly connect these three points. Duplicate or copy the resulting triangle in the following way:

- Draw a line on a blank sheet of paper.
- With your compass, measure the base AB (between blue-green and yellow-green) of the triangle.
- Mark this distance off on the line you have drawn.
- With your compass on point A of your color wheel, open the span to length AC. On your segment AB, put your compass point at A and place an arc to show length AC. With the same span, place your compass point on B and draw an arc which intersects the one you just drew. Label this point of intersection C. Connect AC and BC.
- Label this triangle "split complementary." Cut it out and place it on your color wheel. Rotate it to discover the various split-complementary combinations.

ACTIVITY #2

Three color wedges which are equally spaced from each other on the color wheel are called *triad*. For example, red, blue and yellow form a triadic color harmony. Place a mark at the center of the arcs of these three wedges, and lightly connect these points. Use your compass to duplicate the resulting triangle as you did before. Label it "triad." Cut it out and manipulate as above.



(continued)

ACTIVITY #3

The colors on either side of 2 complementary colors are called a *tetrad*. For example green, yellow, violet, and red form a tetradic color harmony. Place a mark at the center of the arcs of these four wedges. Lightly connect these four points. Duplicate the resulting rectangle in the following way:

- Draw a segment XY on a blank sheet of paper.
- Open compass span to more than half XY. With compass point on X, draw an arc above and below segment XY. Place compass point on Y and draw arcs which intersect the other arcs. Connect the points of intersection and extend the resulting line, which is perpendicular to XY. Label the point A where this line intersects XY.
- Open compass span to width of rectangle on your color wheel. With compass point on A, mark off this length on the line you constructed that is perpendicular to XY. Call this segment AW.
- Open compass span equal to the length of the rectangle on your color wheel. Place compass point on A and mark off this length onto XY. Label this segment AL.
- Place compass point on W and mark on arc equal to length AL (length of your rectangle). Adjust span to length AW (width of your rectangle). Place compass point on L and mark an arc which intersects the other arc. Call this point of intersection Q.
- Connect QL and QW to complete the rectangle. Label it "tetrad." Cut it out and manipulate as before.

VARIATION

The equilateral triangle and the rectangle can also be constructed using a regular hexagon inscribed on the color wheel:

- Open the compass span to the radius of your color wheel. Draw a circle using this span on a blank sheet of paper.
- Using the span of the radius, begin at any point on the circle and mark six arcs which intersect the circle at regular intervals. Label the points of intersection in order: A, B, C, D, E, and F. Connect the points to construct a regular hexagon ABCDEF.
- Connect every other point of intersection to construct the equilateral triangle of the triadic color harmony.
- Connect AB, BD, DE and EA to construct the rectangle of the tetradic color harmony.

DISCUSSION

What type of triangle indicates the split-complementary harmony? (isosceles) How many different color combinations are there in this harmony? (twelve) What are they?

What type of triangle indicates the triadic color harmony? (equilateral) How many different color combinations are there in this harmony? (four) What are they?

The split-complementary and the triadic color harmonies are both indicated by triangles. Why are there twelve split-complementary harmonies, but only four triadic harmonies?

How many different color combinations are there in the tetradic color harmony? (three) Identify them.

What is the ratio of width to length of your rectangle?

Are there any comparisons between your three shapes? (For example, the side of the equilateral triangle is the same measurement as the length of the rectangle.)

Are any of the split-complementary color harmonies and the triadic color harmonies the same? Why?

Look at pictures of quilts in books. Can you find examples of the four color harmonies explored in this activity? (Remember that some of the colors may be pastels or darker shades of the ones on your color wheel.)

Why would knowing the mathematical relationship between colors be important? When would colors and their relationships to each other be important to you? Decoration? Wardrobe? Architecture?

RELATED ACTIVITIES

Science - Properties of Color
Science - Color Relationships
Math - Making a Color Wheel

FURTHER INFORMATION

Elements of Color, Johannes Itten
Color for Quilters II, Susan McKelvey
The Magical Effects of Color, Joen Wolfrom



Translation



Rotation



Reflection



Glide Reflection

SYMMETRY in QUILT DESIGNS

Examples of symmetry can be found within many traditional quilt blocks, as well as in overall quilt designs. After gaining an understanding of the four standard symmetry operations, students create an original asymmetric quilt block and manipulate it to explore point, line, and plane symmetries.

MATERIALS

graph paper, one sheet per student
tracing paper, two sheets per student
black felt-tip marker or dark pencil
scissors, gluestick
felt-tip markers or colored pencils

ACTIVITY

- Using the letter "P" as an example, teacher demonstrates on the board the four standard symmetry operations:
translation (repeating the motif along any line)
rotation (around a point, like a pinwheel)
reflection (also called mirror or bilateral symmetry)
glide reflection (translating, then reflecting the motif)
- Students draw a 2" square on graph paper and create an asymmetrical design with it, using straight lines or curves or both. Then, duplicate this original block four times across the width of the tracing paper.
- To obtain the reflection or mirror image of the original block, turn the graph paper to the back. (Outline the reflected block if it is not dark enough to be seen through the tracing paper.) Put a tiny "R" in one corner or at one side to indicate that this is the reflected block. Trace the reflected block onto the tracing paper four times, directly below the row of original blocks. Put your name in the margin next to each row of blocks. Cut out the rows, including margins.
- Students work together to glue their rows onto blank paper so that 5 rows fit on each sheet. Teacher photocopies each sheet four times, so that each student has four rows of original blocks and four rows of reflected blocks. Students cut apart their own 32 blocks.
- Using photocopies of an original block and its reflection with an overhead projector, teacher demonstrates point, line, and plane symmetries (see Further Information). Students copy the arrangements with their own blocks to gain an understanding of each of the symmetries.
- Using at least 16 of their blocks, students create a quilt design in the symmetry pattern of their choosing. Glue it to a blank sheet of paper and color it. Present it before the class, giving an explanation of the symmetry pattern used.

(continued)

VARIATION #1

- Some of the plane symmetries may be more easily approached by cutting the original block in half along a diagonal (this then becomes the basic unit), and filling in the square with the reflection of that half or a 180 degree rotation of that half.

VARIATION #2

- Look at a traditional quilt block and describe its symmetry. Find the axis of reflection, if applicable. Isolate the basic unit which, when translated, rotated, or reflected (or manipulated with a combination of these operation), makes up the block. Using this basic unit, perform a different symmetry operation or a different combination of operations to create your own original block. (This block may then be used in the basic activity described above.)

VARIATION #3

- Isolate the basic unit of a traditional quilt block as described in Variation #2. Change one element of the basic unit. Create a new block using the new element.

VARIATION #4

- Design an original block which contains two kinds of symmetry. Using this block, fill a page with pattern using one of the 17 plane symmetries.

VARIATION #5

- Create an irregular grid with increments of your choosing. Using a small number (4-9) of blocks from one of the patterns created in the activity or any of the variations, draft your pattern onto the grid. Be sure to mark enough guidelines to adequately transfer your pattern.

VARIATION #6

- Divide a circle into 3, 4, 5, or 6 equal parts. Create a design in one of the sections and use point symmetry to make a mandala. (Optional: Make this mandala into a quilt block by setting it into a square. Photocopy the square and create a quilt design with this block.)

DISCUSSION

Can you analyze and name the symmetries present in various traditional quilt blocks? What about in overall quilt designs?

Can you find examples of symmetry patterns in the classroom, on book covers, in clothing? Identify them.

FURTHER INFORMATION

Symmetry: A Design System for Quiltmakers, Ruth B. McDowell

The Surface Plane, Martha Boles and Rochelle Newman. This is book 2 of Golden Relationship Mandala, Katie Pasquini

The Quilter's Album of Blocks and Borders, Jinny Beyer

Treasury of American Quilts, Cyril I. Nelson and Carter Houck.

LOOKING AT COLORS

Examine colors: the colors we see, use, like and wear, and how they make us feel.

MATERIALS

variety of fabric (ask for donations of solid colors, pre-cut into pieces not larger than 3" x 3")
 clothes that the students have worn that day
 magazines that have animals, children, nature scenes, and items of interest
 classroom books scissors (optional)
 white paper glue stick

ACTIVITY

- Hold up fabric swatches and have students identify the colors (red, orange, yellow, green, blue, purple, black and white).
- Point to other colors around the room and in student's clothing and have them identify colors according to the most amount of a single color and any additional colors. (Peach might be thought of as mostly orange with some yellow, turquoise as mostly blue with a little bit of green.)
- Talk about 'warm' colors (yellow, red, orange, peach...) & 'cool' colors (blue, green, purple, navy).
- Students fold paper in half. They will be making a different picture on each side.
- Have students rip (or cut) out pictures from magazines, one or two pictures which make them feel happy, and one or two pictures that make them feel sad. Lay a swatch of fabric next to this picture.
- Using these fabrics and pictures from magazines, have students create a collage that makes them feel 'good' (warm), then a picture that makes them feel 'sad' (cool).

VARIATION #1

- Find pictures in classroom books to discuss how the use of color makes students feel. Try using books with which students are not yet familiar.

VARIATION #2

- Make a 'happy' picture with cool colors on one side of a second piece of paper and make a 'sad' picture using warm colors on the other side.

DISCUSSION

Discuss how 'warm' colors advance (look like they are in front), and 'cool' colors recede (look like they are in back).

Can colors seem "warm" or "cool"? Use examples of the sun, ocean, grass, nighttime and metal...

Name some other things that make you feel warm or cool?

What makes a color seem 'warm' or 'cool'? Why does your picture feel warm/cool?

What is your favorite color? Did you use it when you made your picture?

Have individual students explain why a picture they made makes them feel warm or cool, good or sad.

Why did you choose that color of fabric to go with that picture?

Can pictures in books tell a happy or sad story using the colors the artist has chosen?

RELATED ACTIVITIES

Math - Checkerboard

FURTHER INFORMATION

Apricots at Midnight, Adele Geras

The Quilt Story, Tony Johnson

Tar Beach, Faith Ringgold

COOL KOOL-AID COLORS

Students are introduced to creating color by dyeing fabric using a drink mix, then work with this fabric in another lesson.

MATERIALS

two yards white cotton fabric, pre-cut into 3" squares (45" w by 72" long fabric will make approximately 360 squares - a class of 30 will get 12 squares each)

variety of flavored drink mix (five packets of six colors each)

salt

stirring spoon or stick

warm water

apron, smock or big shirt

buckets or large plastic containers

plastic lined table

ACTIVITY

- Divide students into color groups. They will mix the dye for that color. These teams will make all the dye, and dye all that color of fabric for the class.
- Caution students that this is a dye, and they should be careful not to spill, flip, or toss around fabric or utensils. They should wear an apron, smock, or large shirt to protect their clothing.
- Pour all packets of same flavor drink mix into bucket. Then add 1/3 cup salt.
- Pour five cups warm water into bucket. Stir. (The warmer the better.)
- Once all the drink mix is dissolved, add the allotted fabric. Stir.
- Let this sit from two hours to all day, the longer the better. Stir from time to time.
- Lay fabric out on protected table, careful not to mix colors or have colors run together.
- Follow Science - Looking At Colors using these newly dyed fabrics instead of donated fabrics.

VARIATION #1

- If given more time, and fabric has dried once (or is mostly dry) double dye a *small portion* of fabric. Choose a yellow and put in orange or red. Maybe red in blue. Keep in mind, some colors do not mix well, and brown will be the result.

DISCUSSION

Are the colors that were created, true colors? Was "red" the same color you are used to seeing?

What about the other colors? Did any of the colors turn out the way you thought they would?

Did anyone taste the dye? (There is no harm, and someone will probably anyway.) What did it taste like? Is tasting dye usually a good thing to do? (Caution students on not doing that again, safety.)

What happened when the color was double dyed? Did it turn a different color? What name would you give that color?

What would happen if salt was not added? (Try a batch with out salt.)

What would happen if vinegar were added instead of salt? (Try a batch with vinegar.)

What happens to the dyed fabric when washed? Fabric without salt? Fabric with vinegar?

RELATED ACTIVITIES

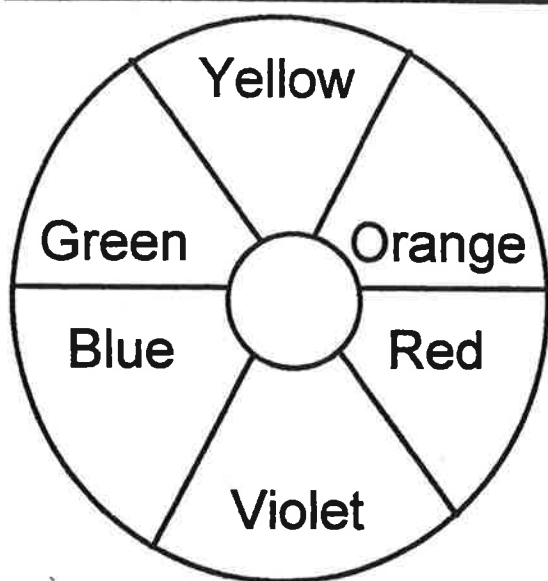
Math - Checkerboard, cut a 6" square of "white or light colored paper" instead of a 4" square. The 3" dyed fabric will substitute for the 2" paper squares.

Science - Look at Colors

Social Studies - Borderline Art: Borders for Story Quilts, use the 3" squares, cut diagonally in half, or cut into 1" x 3" rectangles.

FURTHER INFORMATION

Flavor Quilts for Kids to Make by Jennifer Amor
Color for Quilters II, Susan McKelvey



EXPLORING COLOR

Students are introduced to primary, secondary and their complementary colors by creating a color wheel with crayons. This lesson can be reinforced by using with a math exercise.

MATERIALS

color wheel copied on heavy white paper, one per student
see Appendix
crayons (red, blue, yellow only)
1" x 6" strips black construction paper, one per student
pencil and ruler (variation 2)
brads, one per student

ACTIVITY

- Explain to students the placement of *primary* colors on wheel. Use chart on this page as example. Can also make a transparency.
- With crayons, color primary colors on wheel, follow chart (red, yellow, blue).
- Create *secondary* colors—coloring lightest color first and then darker over top. Yellow first, red over the top to make orange. Secondary colors are made when two primary colors and mixed. Create other secondary colors; green, then violet.
- Fold the 1" x 6" strip to find center. Center fold of black paper on top of wheel, unfold.
- Insert brad through center of black paper and wheel.
- Fold legs of brad to back of wheel. Strip should rotate freely, spin.
- Have students line up black paper on yellow pie. *Complementary* colors are those which are directly across from one another. What is yellow's complementary color? Try red and blue.
- *Harmonies* are created when two colors have a similar color in common. Yellow and green are harmonies because they have blue in common.

VARIATION #1

- Using another color wheel, have students break circle into more equal parts (12ths), which create a third level to the color wheel. Red-orange, yellow-orange; yellow-green, blue-green; red-violet, blue-violet. These colors are called *tertiary* colors.
- Examine *split complimentary* colors. These are the colors which are next to the color directly across from one another. Yellow's split compliments are blue-violet and red-violet.

VARIATION #2

- Using poster paints, make a large color wheel for the whole class. Students mix colors and paint the sections.

VARIATION #3

- Use either "Math - Quilt Designs with 8 Triangles" or "Flying Geese Quilt Design"
- Have students work with primary colors.
 - Next, secondary colors.
 - Then, complimentary colors.
 - Finally, split-complimentary colors.

DISCUSSION

Why are red, blue, yellow called 'primary colors'? Find other primary colors in your classroom. Find secondary colors in the classroom. These could be on the wall, in clothing, books... Find examples of complementary colors used together.

(continued)

How did the colors change from one student to another? Do we all see color the same? Differently? Could you color an even amount of red and yellow to make orange? What about mixing other colors? Name a color and try to determine how to create it. Do you have a favorite combination of colors? Try looking at the "color" in a newspaper to determine the three primary colors and what colors are created from them. (Newspapers are printed in dots. When using a magnifying glass, students can see how the dots of color make the picture, and all color is printed from three primary colors and black. Explain, that 'red' in newspapers is actually magenta. And blue is actually turquoise.) Can we actually say that magenta and turquoise are the real primary colors?

RELATED ACTIVITIES

Math - Making a Color Wheel & Exploring Color Harmonies.

Also, Math - Quilt Designs with 8 Triangles, variation 2, or

Flying Geese Quilt Design, variations 1 & 2.

Social Studies - A British Soldier's Quilt (use discussion of these color concepts during this unit)

FURTHER INFORMATION

Color for Quilters by Susan McKelvey.

Design Basics, David A. Lauer. Pages 230, 231.

Itten: Elements of Color, Johannes Itten, page 31.

The Art Quilt, Penny McMorris and Michael Kile, wonderful pictures that can be used to reinforce these color concepts.

The Magical Effects of Color, Joen Wolfrom.

Examine fabric under a magnifying glass and in the environment—how it looks, breaks down and remains sturdy.

**fabric samples; cotton, polyester, wool, silk, a variety
 (know fiber content, or guess) (enough fabric for three sets of samples)
 poster board magnifying glass**

- Observe the variety of cloth with a magnifying glass.
- Look for weave variations, tightness, smoothness, thickness...
- Describe, in words, those qualities in each fabric.
- Make a hypothesis regarding which fabrics will hold up best in full sunlight. Which will hold up best buried. Write down for comparison later. Explain why?
- Make one set of samples, these are the control samples. Put on poster board. Put in light free place or cover.
- Put second set of samples on another board.
- Hang this board in south facing window or similarly 'bright' spot.
- Dig a one foot deep hole outside. Bury third set of fabric. Do not cover or protect.
- Leave both samples in place for one month, or longer. Uncover/bring inside.
- Examine 'control' sample with board and buried samples for changes.

- Follow same procedure on each action, but add other mediums. White school paper, magazine page, metal, orange peel, hair, balloon, piece of wood...
- Make a hypothesis as before. (Why?)
- Put in sunlight, or bury in the ground.
- After waiting one month, or longer, reveal (take down or uncover) 'environmental' samples.

Discussion
 Discuss the difference between natural and synthetic fibers. (Is everything 'natural' because it comes from nature?) Which do you think will hold up better; synthetic or natural fibers?
 How did each sample hold up after exposure to the elements? Why were some of the hypothesis accurate, while others were not?
 Are there things that should not be put in the ground, or in the air?
 What does this say about keeping things throughout ancient societies? For hundreds of years? Next year? How can we take care of the things we want to preserve? Who would you 'call' to get information to save fabrics? (Museums save canvasses, and sometimes other textiles.) What things do we want to last a long time? Why would we want something not to last?
 Ask if anyone has an old quilt. Discuss why it "looks" old. Examine an old quilt.

Language Arts - Cotton and Poetry
Math - Measuring Fabric Shrinkage

The Quilt Story, Tony Johnston.

Stitching Stars: The Story Quilts of Harriet Powers, Mary E. Lyons.

Hearts and Hands: The Influence of Women and Quilts on American Society, Pat Ferrero, Elaine Hedges and Julie Silber. These books show examples of very old quilts (many still available to be seen in Museums) to stimulate thought regarding preservation.

LEAF PRINTING

Use leaves from plants grown in the classroom or found outside to imprint on fabric

MATERIALS

leaves (bean, evergreen, bamboo, grass, flowers)
muslin fabric in 6" squares or larger
newspaper for table protection
larger squares of newspaper

fabric paint
paintbrushes
brayers
water for rinsing

ACTIVITY

- Choose leaves (plants) to be used.
- Lightly paint one side of leaf.
- Turn leaf paint side down on top of cloth.
- Place a piece of paper on top and bray this sheet so image is imprinted.
- Pull paper off and let dry undisturbed.
- Cut 9" squares of various colored or printed cloth.
- Center dried print on top of larger square of printed/colored cloth.
- Have students or helper sew edge of leaf print fabric to background.

VARIATION #1

- Fabric crayons can be used by coloring lightly over leaf under white paper. Iron, face down, paper to fabric. Fabric must have some polyester in order for transferred image to be permanent.

VARIATION #2

- Light sensitive cloth can be purchased from catalog, and each student can use leaves, lace, and other items to imprint using the sun. See Suppliers.

VARIATION #3

- Try all three methods of rendering a leaf image to compare results.

DISCUSSION

Hang student's work for class to see.

Can you identify the type of plant you used in this task? Can each plant be identified by its print?

Can you see how plant prints can be used in case of a language barrier? What if there was no way to talk to one another? Can pictures say everything you might need to say to someone?

Why are visual images important? Look around the room, magazines... What are some of the visual images represented there?

What are some of the common features you can see using the printed leaves? Differences?

RELATED ACTIVITIES

Language Arts - Words To Art

Science - Monoprinting and Your World On Cloth, design a "whole" cloth quilt, such as a garden or tree, with students on same size paper as proposed quilt.

Social Studies - A Bird's Eye view

FURTHER INFORMATION:

Fiberarts Design Book Four, Nancy Orban, editor, has hundreds of fiber art pieces from as many artists. Look for the variety of techniques which transfer an image to cloth. This can be by stamping, color Xerox, cyanotype and other light sensitive chemicals. See pages 72-A, 78-A, 79-C, 122-A, 186-B, 192-A, 196-A, B, D.

YOUR 'WORLD' ON CLOTH

Draw a map or structure of your 'world': geographical (neighborhood, vacation trip, state) or personal (family tree).

MATERIALS

cotton cloth cut into 8" squares, one per student
poster board cut into 9" squares, one per student
embellishments: ribbon, buttons, beads...
variety of ironable fabric, donations (optional)

1" wide masking tape
fabric pens, dye sticks, fabric paint,
scissors (optional)
fusible interfacing and iron (optional)

ACTIVITY

- Decide your image. Make a draft on paper (optional). A family tree can contain names, titles, faces, and amusing stories.
- Tape fabric on to board, stretching lightly.
- Create images using pens, and paint. Dry.
- Shapes can be drawn on right side of fabric. Fabric is ironed to a fusible interfacing and the shape cut out. The paper from the interfacing is peeled back and the shape is ironed to the 8" square. [This process needs adult supervision. (optional process)]
- Finish with embellishments, if needed.

VARIATION #1

- For individual quilts, cut 12" squares of various colored or printed cloth.
- Center 'world' on larger colored/printed fabric.
- Sew 'world' to this background fabric.
- This front can be finished with backing and batting, then turned to the back for students to hand sew. Follow recommended books for finishing techniques.

VARIATION #2

- Design a "whole" cloth quilt.
- With students on same size paper as quilt, design a garden, neighborhood, or state.
- Decide where leaves/plants, mountains/ rivers will be placed and by who, (teams or partners).
- Working in shifts, print leaf/plants on cloth.
- Once dry, cut borders to fit size of quilt and sew to leaf cloth.

DISCUSSION

Display student's worlds (neighborhoods, family trees...) around the room.

Talk about the similarities of each world. The differences in each world. Why did you chose this world to create?

Have students discuss what is important in their world. The most important things are usually represented by the largest images.

Why did you pick these colors to use? These shapes?

RELATED ACTIVITIES

Language Arts - Friendship Blocks

Science - Leaf Printing and Cool Kool-aid Colors

Social Studies - A Bird's Eye View

FURTHER INFORMATION

The Keeping Quilt, Patricia Polacco.

Sweet Clara and the Freedom Quilt, Deborah Hopkinson.

The Bedspread, Sylvia Fair.

Lap Quilting and More Lap Quilting, Georgia Bonesteel, for individual quilt finishing techniques.

MONOPRINTING

Students manipulate paint on acrylic sheets for original prints on fabric, while understanding and enhancing color lessons.

MATERIALS

cotton cloth cut into 8" squares, one per student
 fabric paint, primary colors and black and white (Createx or Liquitex are excellent paints)
 acrylic sheets, at least 8" square, 4 or 5 sheets (recommend working in rotating groups of 4 or 5)
 table - protect surface sheets of paper (same size or larger)
 brayer(s) water for rinsing - hands, brushes, acrylic sheets
 shallow paint trays paint brushes
 chopsticks, hair pick, toothpicks... tools to manipulate paint on surface (optional)
 * consult Science - Exploring Color and Elements of Color

ACTIVITY

- Complete one of the above mentioned Science units for information regarding primary, secondary and non-complementary colors. This lesson enhances the color unit.
- Set out paints in trays, water containers, and tools on table.
- Students heavily spread paint on acrylic sheets (brush or fingers). Work quickly as paint dries fast.
- When paint is spread, tools can be used to make unusual marks in the paint (optional).
- Put fabric on top of painted acrylic. Quickly, lay a sheet of paper on top of fabric.
- With brayer, gently apply pressure to paper/fabric surface. This will push the paint into the fabric.
- Pull off paper. Pull off fabric and lay aside to dry.
- Wash acrylic sheet, then dry for next student's use.

VARIATION

- Design a "whole" cloth quilt.
- With students on same size paper as quilt, design a garden, neighborhood, or state.
- Decide where leaves/plants, mountains/
rivers will be placed and by who, (teams or partners).
- Working in shifts, print leaf/plants on cloth.
- Once dry, cut borders to fit size of quilt and sew to leaf cloth.

DISCUSSION

The fabric created, heavier now with the paint, can be used as jacket for a journal.

This unit can also be used in conjunction with a math unit on triangles or pentominoes.

Use questions generated in previous color lessons to enforce primary, secondary, complementary

RELATED ACTIVITIES

Language Arts - From Words To Art

Math - Quilt Designs with 8 Triangles, variation 2 and
 Flying Geese Quilt Design, variations 1 & 2.

FURTHER INFORMATION

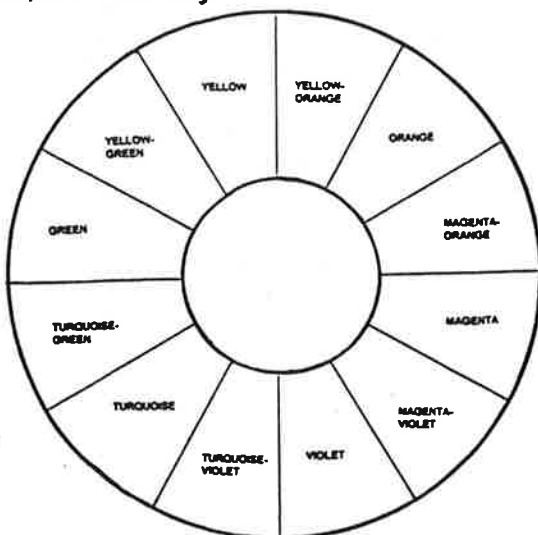
Periodicals are perfect for discussion of contemporary fiber art, and use of color.

New Quilts: Interpretations and Innovations, Quilt National, also see other books from Quilt National.

The Art Quilt, Penny McMorris and Michael Kile.

PROPERTIES OF COLOR

Paint a color wheel, while learning about the properties of primary, secondary & tertiary colors: hues, value, and intensity.



MATERIALS

transparency of color wheel (with words), see Appendix
 color wheel on heavy paper, one per student, see Appendix
 tempura paints (magenta, turquoise, yellow)
 (for better color mixing, consider acrylic paints)
 quilt books for examples (besides those listed)
 pencil
 paintbrush
 water for rinsing
 half sheet heavy paper, one per student
 scissors
 tray for mixing paint
 glue

ACTIVITY

- Review concepts from Science - Exploring color for process and discussion questions.
- Discuss with students the lesson using transparency for color placement.
- Paint magenta, yellow, and turquoise in every 4th wedge shape. These are *primary* colors.
- In tray, mix magenta with yellow. Make orange. Orange is a *secondary* color. Paint orange between these two primary colors. Continue with magenta and turquoise (violet), and turquoise and yellow (green).
- Students create a third level to color mixing. magenta-orange, yellow-orange; yellow-green, turquoise-green; magenta-violet, turquoise-violet. This third group of colors are called *tertiary* colors.
- Finish painting all twelve wedges. Dry. These are called *hues*.
- Using half sheet of paper, divide one of the remaining colors in half. To one half add a small amount of white paint and paint a 'square' on the paper. To the other half, add a small amount of black paint and also paint a similar size square. This demonstrates the *value* of color.

DISCUSSION

The first property of color is *hue*. The color wheel contains three *primary* colors, three *secondary* colors, and six *tertiary* colors. The color wheel has twelve hues. Sometimes the words "color" and "hue" are synonymous, but they are different. "Blue" is a hue, but there are many different shades or tints of blue. (turquoise, sky blue, navy) Can you list other names for blue?

Why do you think magenta and turquoise were used instead of red and blue? (Use some of the same discussion questions from Science - Exploring Color.) Students can actually mix red with yellow and blue to discover the differences in the colors created. Why do we say red and blue are primary, when actually magenta and turquoise mix better colors? This is assuming the students agree.

(continued)

Could you mix an even amount of magenta and yellow to make orange, or did you need to add lots of yellow and a little magenta? What about mixing other colors? (This can be done using small film canisters and eye droppers thus enhancing a math unit.) Opens discussion regarding the need for standardization of color, color names, consistency in color mix, and variations of color available.

This can also be done using white and a color to give students a good idea how much pigment is used to change the color white. Play a game to see if students can detect the smallest amount of color in white.

The second property of color is *value*. Value is the lightness or darkness of a hue. When white is added to a color or lightened, it is called a *tint*. That lightened color has a high value. When black is added to a color or darkened, it is called a *shade*. That darkened color has low value.

The third property of color is *intensity*. Intensity refers to the 'brightness' of a color. A color is at its highest intensity when it is unmixed. Discuss the most intense colors on the wheel. Can you see how a color loses its intensity when it is mixed with another color. What about when mixed with black or white? Does it lose its intensity? What about its value? Site examples around the room.

Quilters use color choices when making a quilt. Find examples in books listed below.

VARIATION #1

- Look at ads in magazines. Talk about use of color, how it makes you feel, how color is used to influence our ideas on products. Red cars for speed, dark cars for 'wealth'.
- Practice substituting colors on products. Coca-Cola magenta for green?...
- Look at the color of food and how it influences what we eat. Remember Green Eggs and Ham, Dr. Seuss?

VARIATION #2

- Use this lesson when discussing Language Arts - You Be The Artist.

RELATED ACTIVITIES

Math - Creating a Color Wheel and Color Harmonies

Science - Color Relationships

FURTHER INFORMATION

Elements of Color, by Johannes Itten.

Design Basics, David A. Lauer.

Color For Quilters II, Susan McKelvey, for pictures that explain color use in quilts.

The Magical Effects of Color, Joen Wolfrom, look at quilts on pages 25-28, 61-76 and 109-112.

The Art Quilt, Penny McMorris and Michael Kile.

WAYS TO ACHIEVE VISUAL UNITY

Using fabric shapes, students create work with "proximity", "repetition", and "continuation".

MATERIALS

transparency of examples, see Appendix

donations of various fabric— printed, solid colors, textures, light, dark for cutting into shapes

neutral colored fabric for background, cut into 8" squares, one per student

heavy stock paper (construction, poster) same size as neutral fabric, one per student

stapler

scissors

pencil or pen

ACTIVITY

- Show transparency to class and discuss the exercise.
- Staple neutral colored fabric to four corners of heavy paper for rigidity in display of shapes.
- Cut 10 simple similar and 10 simple dissimilar shapes from various fabrics, per student. Shapes should stay approximately 1-2" maximum size in any one direction. Shapes can include squares, rectangles, various triangles, curved thin lines, long thin lines... These fabric units can be pre-cut; a rotary cutter and mat are very useful.
- Using these shapes, follow each variation to discover the perception of *unity*. It is important that fabric be used in this exercise, although some students might manipulate their own drawn lines better.
- If students need to enlarge their variety of shapes for an activity, trading is allowed.

ACTIVITY #1

- *Proximity*- make separate elements appear as if they belong together. (Similar sized shapes together.)
- Place fabric shapes on cloth in far reaching random pattern. Do they look 'united'. Why?
- Now place these fabrics close to each other. What makes them look like they belong?

ACTIVITY #2

- *Repetition*- repeat of color, shape, texture. With same shapes, colors or textures make a repeat pattern. Can it be done?
- Cut new shapes if needed. How were the fabric shapes changed to meet this exercise?

ACTIVITY #3

- *Continuation*- a division of space, use of line, direction, or an angle.
- Create this type of unity using same cloth. Can it be done? Do the fabric pieces change to meet this activity?
- How has the fabric selection changed to show unity by continuation.

DISCUSSION

Point out that in science, one needs to examine the system unit, in order to appreciate the total effect.

One must look at pattern, regularity, unity, as well as chaos, irregularity, and randomness. This is true in creating an art quilting, also.

Visual unity means putting things together so they *look* as though they belong. A relationship. Similar shapes, patterns, images.

Intellectual unity is putting things together so it is *understood* they go together, a common theme.

Vacation photos in a scrapbook, dissimilar shapes.

Visual unity does not mean the exclusion of intellectual unity. How can you demonstrate this using images? (This can be done through use of books, advertisements, or other visual medium.)

(continued)

After each activity, have students show their design and discuss the success or need for improvement of the elements' arrangement. (This is a good way for students to critique without criticism.

Discuss the what and why of critiquing words for art; establish a vocabulary for class use. Why is this important? What needs to be critiqued?

Have students look for examples in other books or magazines that illustrate these design concepts. How is this exercise useful?

VARIATION #1

- Take each of these concepts and introduce *variety*. Without variety designs can become boring. Show examples using these fabric pieces. May need to consult books to find examples.

VARIATION #2

- Look at art books (below) and magazines for logos, advertisements, architecture styles, and other graphic examples that show these concepts.

VARIATION #3

- This lesson can be done using felt shapes on a felt board in front of the class. Invite students to demonstrate each concept.

RELATED ACTIVITIES

Language Arts - You Be The Artist (these concepts can be called upon as the students discuss the compositional work of a fiber artist)

Math - Color Harmonies & Symmetry in Quilt Design.

Social Studies - Quilts and Patchwork Around the World (unity in relation to these fiber techniques can be explored)

FURTHER INFORMATION

Design Basics by David A. Lauer. See pages 18-37 for a variety of examples.

New Quilts: Interpretations and Innovations, Quilt National 1989.

Nancy Crow: Quilts and Influences, American Quilter's Society.

The Art Quilt, Penny McMorris and Michael Kile.

COLOR RELATIONSHIPS

By creating new tints and shades of one hue (color), students learn how a color is changed by its relationship with another color.

MATERIALS

transparency of lesson example, see Appendix

blue, black, and white tempura paints

white poster board, cut into 5" by 21" strips

1" square template of heavy paper (poster board)

paint samples in a variety of colors

paintbrush

water for rinsing

pencil and ruler

ACTIVITY

- Review activity using transparency.
- Divide poster board into seven (7) equal rectangles. Each rectangle should measure 3" by 5". Draw heavy lines with ruler. These lines will be paint guides. Removable tape (3M) can be used to make painting easier, and straighter.
- With template, outline 1" square in center of each rectangle. It is important to center this square - measure if necessary. No need to draw a square in the center rectangle.
- Using the blue, paint center square in each rectangle. Paint center squares in other rectangles the same blue. Let dry. (This is as good place to stop if this exercise takes too much time.)
- Starting just left of center, #3, add a small amount of black to blue paint and paint this rectangle, but not the blue square. Add more black to leftover new darker blue paint (to get even darker blue), paint rectangle #2. Add more black to this leftover darker blue, to get darkest blue, and paint rectangle #1.
- Follow same procedure using white paint added to blue, getting light, lighter, lightest blue shades, and paint accordingly.
- Look at the paint samples at the end of the lesson. See how many different shades and tints of colors are available. See if students can determine the difference between paint samples hues.

VARIATION #1

- Instead of using gradations of blue, try another color or colors. Something must stay constant.
- Using center squares as constant, paint all center squares the same color.
- Select or mix other colors to be used in the rectangles. Paint around each center square with that different color.
- Or, change sequence of the constant used.

VARIATION #2

- Now try this using fabric-make a quilt. Cut 9 - 4" squares from assorted solid colored fabric.
- Cut 9 - 1" squares from different color of fabric (can't be black or white).
- Arrange larger squares in a 9-patch pattern. Various books listed have more information on creating a quilt.
- Sew patches together. By hand or machine.
- Sew smaller square in center of each 'patch'.
- Finish according to 'quilt' instructions.

DISCUSSION

The color wheel contains three *primary* colors, three *secondary* colors, and six *tertiary* colors. The color wheel has twelve *hues*.

(continued)

Value is the lightness or darkness of a color. The value of a color can change by adding white or black to that color. "High value" is a light color, "low value" is a dark color. Not all colors on the color wheel are the same value. Yellow is "highest" [(lightest) actually white is], blue is usually "lowest" (darkest), and red is in the middle.

When white is added to a color or lightened, it is called a *tint*. That color has a high value.

When black is added to a color or darkened, it is called a *shade*. That color has low value.

How easy or hard was it to lighten or darken a color? Why?

How does the center square change when the surrounding colors get lighter? Darker? Or change colors entirely? (Students will notice the center blue will appear darker when surrounded with the highest value/lightest tint of blue then the center blue in the lowest value/darkest shade on the other end.) (The value of a color varies depending on the surrounding hues.)

Were there times the center square almost 'disappeared'?

Do artists have to know science to do their art? Or is it just "natural" for them to pick the right colors? How much science is involved in art?

Did you notice anything unusual when using a variety of colors, keeping the center square constant? Variation #1.

Did using fabric play compliment to shapes and colors because of the texture? Did working with paper and paint have the same effect? Variation #2.

Quilters use these color concepts to move images, or manipulate the feeling of work. Look at the book listed below for example. Sometimes a color is used as a focal point in a work. Would that choice of color be important?

Can you find other examples where color relationships are used? Architecture? Clothing? Other artwork? Advertising?

RELATED ACTIVITIES

Science - Elements of Color and Ways to Achieve Visual Unity

Math - Making a Color Wheel, also consider Exploring Color Harmonies

Language Arts - You Be The Artist

FURTHER INFORMATION

Itten: Elements of Color, Johanas Itten.

Design Basics, David A. Lauer, see pages 232-235. Added information on color in following pages.

The Magical Effects of Color, Joen Wolfrom.

Other book regarding art quilts would be useful. See bibliography.

NATURAL & SYNTHETIC DYES and OUR ENVIRONMENT

While working with three different dye components and a commercially dyed fabric, students will understand the chemistry of dye, the safety aspects of working with dye, and consider its impact on our environment.

MATERIAL LIST #1 "NATURAL" DYE
 onion skins - 20 ounces of skins will dye 2 pounds
 or 6 yards of cloth (check bin for leftovers)
 Alum (can be found in the grocery store)

MATERIAL LIST #2 DIRECT or UNION DYES
 Ritz dye #26 Neon Yellow or #48 Peach or
 Deka Dye #71 Lemon or #72 Yellow

MATERIAL LIST #3 REACTIVE DYES
 Procion MX Fiber #1 Lemon or #2 Bright Yellow
 large sandwich plastic bags (one per student project)
 rubber bands or other closing device
 permanent pen to mark on bags
 soda ash non-iodized salt
 dust mask steamer (optional)

MATERIALS #4
 Commercially dyed fabric, (yellow or a yellow/peach for continuity in color)

MATERIALS #5
 Bleach

ALSO: 5 gallon containers (plastic will stain, but can be washed well with bleach after each use)
 8 yards cotton fabric, washed - 6 yards of white for dying, and two yards colored fabric (see MATERIALS #4)- cut into $\frac{1}{4}$ yard pieces.
 gloves permanent pen for marking samples

Preparations for material list #1

- Dissolve 4 ounces of alum in a small amount of water. Add this alum mix to 4 gallons of heated water. Immerse 2 yards of damp fabric in water and simmer for an hour. Lift out fabric, gently squeeze out mordant solution. This can be done ahead of time and discussed with the class, or with the class the day before.
- Let chopped onion skins stand overnight.
- Boil down onion skins for 1/2 hour in about four (4) gallons of water.
- Add pre-mordant fabric to container of warm onion skin dye.
- The longer fabric simmers in dye bath, the deeper the color. Settle on time, 30 minutes.
- Gently squeeze out fabric, rinse several times with warm water and hang to dry.

Preparations for material list #2

- Get 2 yards of fabric wet, squeeze out excess water.
- Fill sink or pot with enough hot water for fabric to move freely.
- Stir constantly in sink for 20 minutes, or simmer for 30 minutes in pot on stove.
- Rinse in warm, then gradually cooler water until water runs clear.
- Gently squeeze out fabric and hang to dry.

Preparations for material list #3

- Fill container with 3 gallons of hot (105°) tap water.
- Add salt and dye in the proportion listed according to chart that comes with dye.
- When salt and dye are completely dissolved, add wet fabric.
- Stir constantly or every 5 minutes for 20 minutes.
- In separate container, dissolve the soda ash in one quart of hot tap water.
- Add to dye bath in 3 parts at 5 minute intervals while stirring. Do not pour directly on fabric. Continue stirring for next 50 minutes, 30 minutes for pastels.
- Rinse in cold water, wash in hot water.

(continued)

ACTIVITY

- Prepare fabric according to directions and let dry.
- All fabric should be in half yard pieces (four pieces per 2 yards). Make four groups of each of the four fabrics (three dyed, one commercial). One group, Group #1, will remain *control units*. Keep in dark place or covered. Mark remaining pieces with a code to show dye and further activity.
- Group #2 is washed repeatedly. Choose an amount of washings these fabrics will endure.
- Group #3 will hang outside in the sun for the duration of the lesson, days (even a month).
- Group #4 will soak in individual solutions of 1 cup bleach per 5 gallons water. Leave in solution for class period, rinse. This process is called *discharge*. (Can decide to cut these in half for overnight soaking in bleach solution.)
- Bring all groups of fabrics together and examine. See discussion questions.

DISCUSSION

Through out history, the coloring of cloth has occurred using ingredients from plants, insects, minerals and now commercially combined chemicals. Examples of dyeing with *indigo* has been found from as early as 3500 B.C.

The first synthetic dye was discovered in 1856. (Students can investigate William Perkin, a university student in London.) *Reactive dyes* were developed in the 20th century.

Think of dyes as part of a puzzle. Fabric has a molecular hook. Dyes also have a hook. Each color within that dye chemistry has a hook. All the pieces of the puzzle need to fit in order to get same dye reaction/result. This is why colors can look different when using different types of fabric (protein - animal products, or cellulose - plant products).

How did each of the colors look after the fabric was dyed? Compare colors with each of the dye/commercial fabric samples. What kinds of differences do you see? Does that tell you anything?

Mordants unite with the fibers by forming a chemical bridge which fix the dye permanently to the cloth. Two mordants used are alum (potassium aluminum sulfate) and soda ash (sodium carbonate). There are others. Mordants can be acidic or alkaline. (Have students do a pH on the mordants, dyes, and bleach used in this lesson. What did they find?)

Discharge is a chemical which removes dye, such as bleaching the dyes cloth. Artists are generally looking to remove all dye in order to replace it with another color, or desired effect. Did you notice a difference in the discharges of each of the dyes? What about when the fabric remained in the bleach solution longer? How white did the fabric become?

What about after the fabric had been washed a few times? How did the color hold up? What dye/fabric held up better?

Does working with these dyes tell you anything about the permanence of dyes on cloth? What about the chemicals that are used to make dyes? Which dyes can you pour down the sink, and which might need to be disposed of as a hazardous waste? This includes fabric dyed commercially.

Discuss how invention of ideas comes to be. How would someone discover a dye? How would they discover a synthetic version of a dye? (Accident, hypothesis with discipline; very seldom does one person entirely develop an idea/component/cure.)

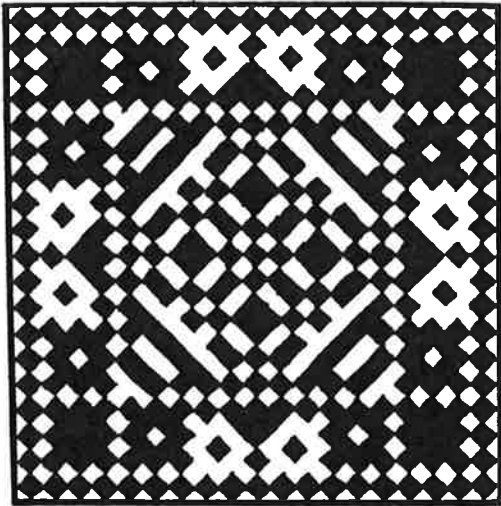
FURTHER INFORMATION

See SUPPLIERS for a list of places to get unusual materials. Weaving Works, in Seattle, should have all these components, except fabric. Dharma has full range of dyes, fabrics, and clothing, plus they consider the environment with their packaging and available information.

Colors From Nature, Bobbi A. McRae

Synthetic and Natural Fibers, Linda Knutson

The New Dyer, Sally Vinroot and Jennie Crowder



A BRITISH SOLDIER'S QUILT

Students will create paper blocks modeled after the soldiers' quilts, to be joined together into one quilt.

MATERIALS

color pictures of soldiers in dress uniform
 1 1/2" paper squares, in black, red, blue, white, yellow
 (each child will need 36 squares)
 9" construction paper squares, 1 per student
 glue
 butcher paper - large enough to mount all the finished blocks

ACTIVITY

- Each child places their colored squares in a pleasing arrangement on their desk.
- Glue the pieces in order on the 9" squares.
- Once all 9" squares are complete, mount them on the butcher paper. Borders can be left on the outside, but no spaces should be left in between squares. There is no sashing between the squares; the blocks are contiguous.

VARIATION #1

- Each child's block is designed with a concentric pattern.

VARIATION #2

- Divide class so that some students get lighter blocks to create, while others get a mix of light and dark, and another group creates dark blocks.
- Arrange blocks to achieve an approximate facsimile of the precise patterns soldiers made.

VARIATION #3

- Symmetry can be introduced in this art project; the soldiers' quilts were usually carefully and concentrically designed. The larger quilt can be designed by an older class as a whole, with each student constructing one part of it.
- Older students can actually design a whole quilt and each student be assigned a specific part of it to construct.

DISCUSSION

Explain that in the 19th century, British soldiers and sailors often made quilts. They had plenty of time between campaign and they knew how to sew from mending their uniforms. They used the worn out uniforms for fabric. 100 years ago uniforms were very colorful; red and blue, black and gold. Their quilts generally had a military and geometric precision about them.

Why would a soldier make a quilt? What about soldiers today? Would they make quilts?

Why were their quilts formally arranged? Can you think of other things soldiers do that are carefully arranged or formal?

Can you think of other sewing traditionally done by men?

Do you sew? Does your dad, grandfather, uncle?

RELATED ACTIVITIES

Math - Checkerboard & Symmetry

FURTHER INFORMATION

Rags to Rainbows, Miranda Innes, pages 50-52.

The Patchwork Farmer, Craig Brown

Sam Johnson and the Blue Ribbon Quilt, Lisa Campbell Ernst

BORDERLINE ART: BORDERS for STORY "QUILTS"

Students make a frame for their artwork out of paper scraps in the style of Faith Ringgold, artist and author of Tar Beach.

MATERIALS

construction paper, 18" x 24", one sheet per student

variety of paper scraps: wrapping, construction, origami, colored advertisement and magazine pages
glue

student artwork on 9" x 12" paper

PREPARATION

- Beforehand, cut the 18" x 24" paper to measure 17" x 12." Cut the center out of this 17" x 12" sheet of paper, leaving a 3" border on all four sides. The resulting "window" is sized for standard 9" x 12" construction paper and newsprint. (Mat board makes even a better base for this project: it is what professional artists and framers use, thereby sending children the message that their work is important. It can sometimes be found for free at frame shops, but is more difficult to cut without the proper tools.)
- Cut the paper scraps into rectangles, squares, and triangles. For ease in cutting, use a 3" base unit: 1 1/2" and 3" squares, 1" x 3" rectangles, triangles with 3" sides or hypotenuses. The wider variety of colors and patterns the better. See Appendix for border samples.

ACTIVITY

- Students each get one construction paper "frame."
- They arrange repeating patterns of color and shapes on their frame.
- When they are pleased with the arrangement, glue pieces in place.
- From the back, center the artwork in the frame's window; glue or tape the edges down. Display the finished and framed artwork.

VARIATION

- Students can write down the story that their picture tells. Read Tar Beach to the class for an example of the integration of art and story.

DISCUSSION

How is your finished piece like a quilt? How is it different?

Have you seen Faith Ringgold's books before?

Do you know what 'scrounge art' is? It is a movement using found objects (trash) to create art. If you used wrapping paper or magazine pages or mat board, then you have made some scrounge art.

Why would making scrounge art be desirable?

RELATED ACTIVITIES

Language Arts - Patterning and Quilts & Quilts As Historical Record

Math - Checkerboard

FURTHER INFORMATION

Tar Beach, Faith Ringgold

Inspirations: Stories About Women Artists, Leslie Sills, pages 40-51 about Faith Ringgold

A BIRD'S EYE VIEW

The story of one runaway slave's map quilt will introduce students to mapping and overhead perspective.

MATERIALS

Sweet Clara and the Freedom Quilt, Deborah Hopkinson
examples of simple maps, i.e., road maps
paper
pencil, crayons
ruler, optional

ACTIVITY

- Read aloud Sweet Clara and the Freedom Quilt
- Show parallels between Sweet Clara's quilt and maps.
- Practice overhead perspective by mapping the classroom on the board.
- As homework, have children map their block or neighborhood with houses, garages, mailboxes, stores or businesses, etc.
- If symbols are used for these features, patterns may arise.

VARIATION

- Students work in teams to map the school grounds, complete with hopscotch markings on the playground and errant four-square balls on the roof.
- Or, teacher divides space to be mapped into sections using tape, string or chalk. Each student or team maps one section.

DISCUSSION

Many artists make maps of places or map out their lives to tell stories of where they have been and what they have done. Even traditional quilt blocks were designed and patches/squares made to tell a story of where pioneers traveled or what happened along the journey.

Who else uses maps?

Why are maps helpful?

RELATED ACTIVITIES

Science - Your World on Cloth

FURTHER INFORMATION

The Patchwork Farmer, Craig Brown, also plays on the patchwork quality of farm landscapes.

Hearts and Hands, Pat Ferrero, Elaine Hedges and Julie Silber. See pages 41-49 and 69-72 for information on slave quilts and the Underground Railroad.

PANAMANIAN MOLA



Students use paper to create a facsimile of a traditional textile craft from the Cuna Indians of Panama. In so doing, they learn the basic design principles for making a mola, as well as experience a little bit of the culture of an indigenous people of Central America.

MATERIALS

9 x 12" construction paper, one black sheet and one brightly colored piece for each student
 red, blue, yellow, green construction paper to share
 pencil glue
 scissors crayons or marking pen
 pictures of molas (see at left)
 pictures of animals from Central America (optional)

ACTIVITY

- Glue large irregularly shaped pieces of a variety of colored papers on the 9" x 12" colored piece of paper. The background does not have to be filled completely.
- Trim any overhanging edges so that the paper remains 9" x 12".
- On the black paper, draw the main motif; animals, plants, fish and corals are the most popular designs used in authentic Cuna molas.
- Also mark shapes, such as skinny rectangles, triangles or simple flowers to fill the empty spaces around the main design motif.
- Cut all these designs out.
- Matching outside edges, glue the black paper onto the base paper; the various colors of the background will show through the cut-outs.
- Using the cut out of the main design motif as a template, trace this design onto a contrasting color of paper and cut well inside the lines so this main design motif becomes smaller.
- Center this smaller cut-out shape in the larger space of the mola; glue.
- Details such as eyes or feather can be put in with marking pens or crayons.

DISCUSSION

Where is Panama? What kind of land form is it? (Work this lesson in with the study of this country.)

Is there something the United States and Panama did that made it extra special? (Built a canal)

Do you ever hear of it on the news? If so, why?

What does 'indigenous' mean? The Cuna Indians are indigenous to Panama; where did the ancestors of other Panamanians come from?

What language(s) do they speak in Panama?

RELATED ACTIVITIES

Math - Exploring Color Harmonies

FURTHER INFORMATION

Molas: Folk Art of the Cuna Indians, Ann Parker and Avon Neal

Rags to Rainbows, Miranda Innes. Pages 104-106 discuss molas.

Quilting the World Over, Willow Ann Soltow. Pages 179-184 discuss molas.

SILK SLOGANS AND COTTON CRUSADES

Students experience first hand the feeling of disenfranchisement common to 19th century women, and to any people not allowed a voice in decision making.

MATERIALS

variety of art supplies

ACTIVITY

- The class of students is divided in half.
- One group will make all joint decisions for a week. They discuss the options and debate pros and cons for all choices. The teacher will need to make sure there are plenty of opportunities for this activity.
- The second group may not discuss these issues in class. They may make art which reflects their positions, but they may not use words publicly.
- The groups switch roles for the second week.
- During the third week, discuss the findings.

VARIATION

- The role-playing lasts only three days, one day per group and one day for discussion.

DISCUSSION

Just because American women did not gain the right to vote in 1920, they certainly were not quiet about their political opinions. Though not allowed to express themselves publicly, women let their needles do the talking. Common themes for 19th century quilt included the Civil War (support for both North and south), presidential campaign, the Abolitionist movement (anti slavery), the Temperance movement (anti-alcohol), and women's suffrage.

Before this exercise, the teacher will want to discuss these issues with the class. The book, Hearts and Hands or the video of the same name will be invaluable for that purpose.

When you were a decision maker, could you tell what the others wanted? Did you care?

When you were silent, how did you feel? Could you make your opinions known?

Do your parents vote? Do you know why or why not?

Do you personally know anyone who faced opposition when they tried to vote?

RELATED ACTIVITIES

Social Studies - The Art of Social Commentary & Pattern Politics

Language Arts - Words to Art

Science - Creating Color, especially Variation #2

FURTHER INFORMATION

Hearts and Hands, Pat Ferrero, Elaine Hedges and Julie Silber. Pages 66-97 detail a number of political and social causes championed by 19th century quilters.

WASHINGTON QUILT HERITAGE

Students are introduced to research and report writing by choosing a quilt from the Washington Centennial tribute to quilting, Women and Their Quilts, and reporting on the origins or history of the pattern.

MATERIALS

Women and Their Quilts, Nancyann Johanson Twelker
writing materials

ACTIVITY

- Each student chooses one quilt from Twelker's book. The traditional quilts are most appropriate.
- Research that pattern. Find out how old it is, other names by which it is known, unusual facts or anecdotes.
- Alternatively, students create a fictional history. They will need to be familiar with the history in order to make it sound authentic, and convince the class.
- Write a report; include a drawing of the quilt block pattern.
- Students present the report to the class.

DISCUSSION

Can you see the correlation between the title of the quilt block pattern and what it looks like?

Does your family have an heirloom quilt, or other artifact of family history?

Do you think knowing about your family history is important? Why?

RELATED ACTIVITIES

Language Arts - Quilts As Historical Record

Math - Quilt Designs with Eight Triangles

FURTHER INFORMATION

Quilt with the Best, Carol Cook Hagood, editor

Treasury of American Quilts, Cyril B. Nelson and Carter Houck

A Quilters Album of Blocks and Borders, Jinny Beyer

Encyclopedia of Pieced Quilt Patterns, Barbara Brackman

The Perfect Patchwork Primer, Beth Gutcheon

QUILTS AND PATCHWORK AROUND THE WORLD

Students will research and report on fiber technique from a culture other than mainstream America.

MATERIALS

writing materials

art materials (including fabric)

pictures of the following crafts:

SOLTOW

trapunto....Italy

arpillera... Argentina

tifaifai....Polynesia

Fante banners....West Africa

Hmong reverse appliqué...

South Asia

paper piecing... Great Britain

INNES

adwinasa....West Africa

ikat patchwork...Central Asia

strippy....Great Britain

yogi....Japan

boutis...France

ralli....India, Pakistan

SOLTOW & INNES

mola....Panama

sashiko....Japan

Hawaiian appliqué...Hawaii,
Polynesia

Seminole patchwork...

Seminole people of Florida

Amish quilts... Amish people of
Pennsylvania, Ohio, etc.

button blankets... Northwest Coast Native Americans

ACTIVITY

- Each student chooses one craft.
- Student researches the subject, and writes a short report.
- Create some sample of this craft. Can be made with paper, drawing, fiber...
- Some potential sources are listed below.
- (This can be part of a more general report on a specific country or culture.)

DISCUSSION

How is the culture manifested in the crafts? Or, why did the people develop their fiber technique the way they did? Examples would be the strip piecing of the Seminoles (made possible because of the introduction of the sewing machines) and the solid color quilts made by the Amish (they only wear solid colors, prints are considered too fancy).

Why did you choose the technique you did? Was it because of interest in the country/culture or attraction to the artform?

Is the craft still made today? Handed down through generations?

Who makes your craft? Men, women and/or children?

Is this craft done for home use, decoration, religious reasons, or to generate income for family or community?

What are it's contemporary uses in that country? How is it taught?

What kind of similarities are there between the various fiber techniques? Why? What kind of contact might the cultures have had?

Can you find uses of this craft in clothing of today? Home decoration? Advertising? Look in magazines, catalogues for examples.

RELATED ACTIVITIES

Social Studies - Panamanian Mola

Language Arts - Oral History

(continued)

FURTHER INFORMATION

Rags to Rainbows, Miranda Innes

Quilting Around the World, Willow Ann Soltow

These two books, referenced above, cover most of the above list. The following books are on specific techniques:

Trapunto and Other Forms of Raised Quilting, Mary Morgan and Dee Mosteller

Molas: Folk Art of the Cuna Indians, Ann Parker and Avon Neal

Sashiko: Blue and White Quilt Art of Japan, Kazuko Mende and Reiko Morishige

The Classic Quilting of Sashiko, translated by Mariko Akizuki

Who'd A Thought It, Eli Leon (adwinasa)

Stitching Stars: The Story Quilts of Harriet Powers, Mary E. Lyons (Fante banners)

Hawaiian Quilting, Elizabeth Root

Complete Book of Seminole Patchwork, Beverly Rush and Lassie Wittman

The World of Amish Quilts, Rachel and Kenneth Pellman

Robes of Power: Totem Poles on Cloth, Doreen Jenson and Polly Sargent (button blankets)

Also, quilting magazines routinely cover techniques from other cultures.

PATTERN POLITICS

Students discover the meaning of 19th century quilt block names and how they were related to the politics of the day.

MATERIALS

research materials, see books listed below for other quilt blocks

writing materials

art materials

ACTIVITY

- Students choose one or more of the following quilt blocks and research their names: to whom or what are the names referring?

Whig Rose	Coxey's Army
54-40 or Fight	Mr. Roosevelt's Necktie
Lone Star	Lincoln's Platform
Clay's Choice	Old Tippecanoe
Union Star	Burgoyne's Quilt
Lemoyne Star	Underground Railroad
Nelson's Victory	
- Class puts together a lexicon of quilt blocks and their secret messages.
- Teams of students make political posters using these quilt blocks to express a slogan or opinion. The opinion can be written on the back.
- Class tries to "read" the posters.

VARIATION

- Make up a secret code, either in groups or as a class. This could be done with symbols or designing new quilt blocks and naming them.

DISCUSSION

Notice most of these blocks refer to men. Why is that? Can you find blocks referring to women? (Dolley Madison's Star, Queen Charlotte's Crown...)

Why would a quiltmaker put her opinions in code this way? What would be the advantage? The disadvantage? Who else would know this code? Is it important that others read a code?

Can you think of other codes we all use? Advertising slogans, grammar, dialect, universal signs, sign language...

What are two political symbols in use today? Are there other political symbols?

RELATED ACTIVITIES

Language Arts - From Words to Art

Social Studies - Silk Slogans and Cotton Crusades & Washington Quilt Heritage

FURTHER INFORMATION

Quilt With the Best, Carol Cook Hagood, editor

Treasury of American Quilts, Cyril B. Nelson and Carter Houck

A Quilter's Album of Blocks and Borders, Jinny Beyer

Encyclopedia of Pieced Quilt Patterns, Barbara Brackman

The Perfect Patchwork Primer, Beth Gutcheon

Hearts and Hands, Pat Ferrero, Elaine Hedges and Julie Silber. Page 66-97 detail a number of political and social causes championed by 19th century quilters.

THE ART OF SOCIAL COMMENTARY

After discussing the work of quilt artist Penny Sisto, students find other examples of political art and give their interpretation of the artist's meaning.

MATERIALS

examples of the work of Penny Sisto, see books and magazines listed below
variety of other art books and magazines

ACTIVITY

- Show students examples of Sisto's work.
- Talk about the political nature of her quilts and how she achieves their unsettling quality. For one thing, Sisto constructs very realistic and disturbing images out of fabric; the very juxtaposition of the painful image with the inherent softness of a quilt is startling.
- Discuss other "message" art: Max Beckmann (discusses chaos in Germany after World War I in his paintings), Judy Chicago (discusses the politics of womanhood from 1950's to today in her paintings, performance art and installations), Buster Simpson (local artist who tackles needs for the Homeless, pollution, and culture integration), even the protest songs of Woody Guthrie, Bob Dylan, or today's rap artists.
- Ask students for more examples and an explanation of why their examples are political.

VARIATION

- Students prepare a written report on this subject.

DISCUSSION

What is art? Does a piece have to 'say' something to be art? (Note: The notion of good art changes continuously. Religious or iconoclastic art, Impressionism, Expressionism, Realism, Surrealism (sub-consciousness), Russian Revolutionary Art, Abstract Expressionism (formal design elements and use of color), Performance Art ... (just a few ideas). Students can site examples of how art has changed just during their lifetime.

What does it mean for art to be political?

Why would an artist want to make an 'ugly' piece?

It seems that revolutions call for stridently political art. Witness the proletariat art from the Soviet Union in the 1920's and the "politically correct" movement of today. Why is this? Do you see a comparison? Are we in the midst of a revolution? If so, what kind?

RELATED ACTIVITIES

Language Arts - From Words to Art

Social Studies - Silk Slogans and Cotton Crusades

FURTHER INFORMATION

Penny Sisto's work may be seen in American Quilter Magazine. Summer 1990, Vol. VI, No. 2, pages 26-32; and American Quilter Magazine, Fall 1994, Vol. X, No. 3, pages 22-25.

History of Art, H. W. Janson, look under the various art movements for examples.

The following artist statements were located next to each of the artists' work during the exhibition **NEW WORK: MAKERS MAKERS MEANINGS** held at the Washington State Convention and Trade Center, in Seattle, from September 6 through December 28, 1994.

Gerry Chase
SAMPLER II: SILK
40" by 40"

In my fiber assemblages I draw liberally from the conventions of American quiltmaking tradition. For one thing, I simply feel close to it. (Is it possibly because I share this country's birthday?) For another, I feel it offers rich potential for expressing themes and issues relevant to my experience of being a woman in modern America. And to simply being alive. Human beings have a closer connection to fabric than to any other art medium. Cloth is the first thing we experience coming into this world (after the human hand), and something we feel against our skin every day of our lives.

Two themes seem to predominate: exaltation of the ordinary, and the power of repetition...like drum beats.

.....

Joyce Keron
SUMMER RAIN
38" by 35"

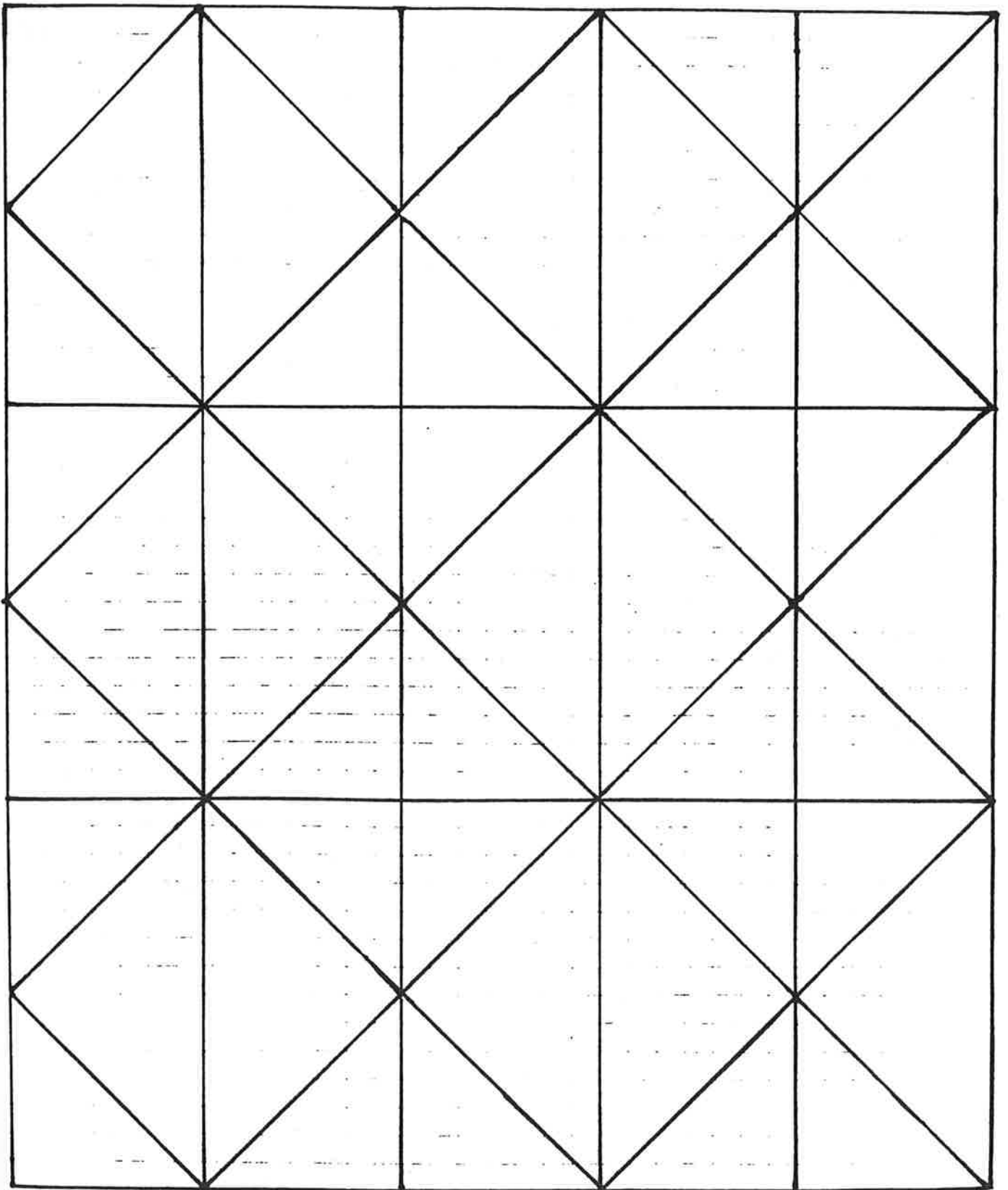
In the last year, I have created four quilts inspired by a peat bog which was part of our neighborhood when I was growing up. It was a dangerous place, firm ground would give way to water in a single step but it lured us to its edges with a promise of pussy willows, pollywogs, and salamanders; I avoided the snakes.

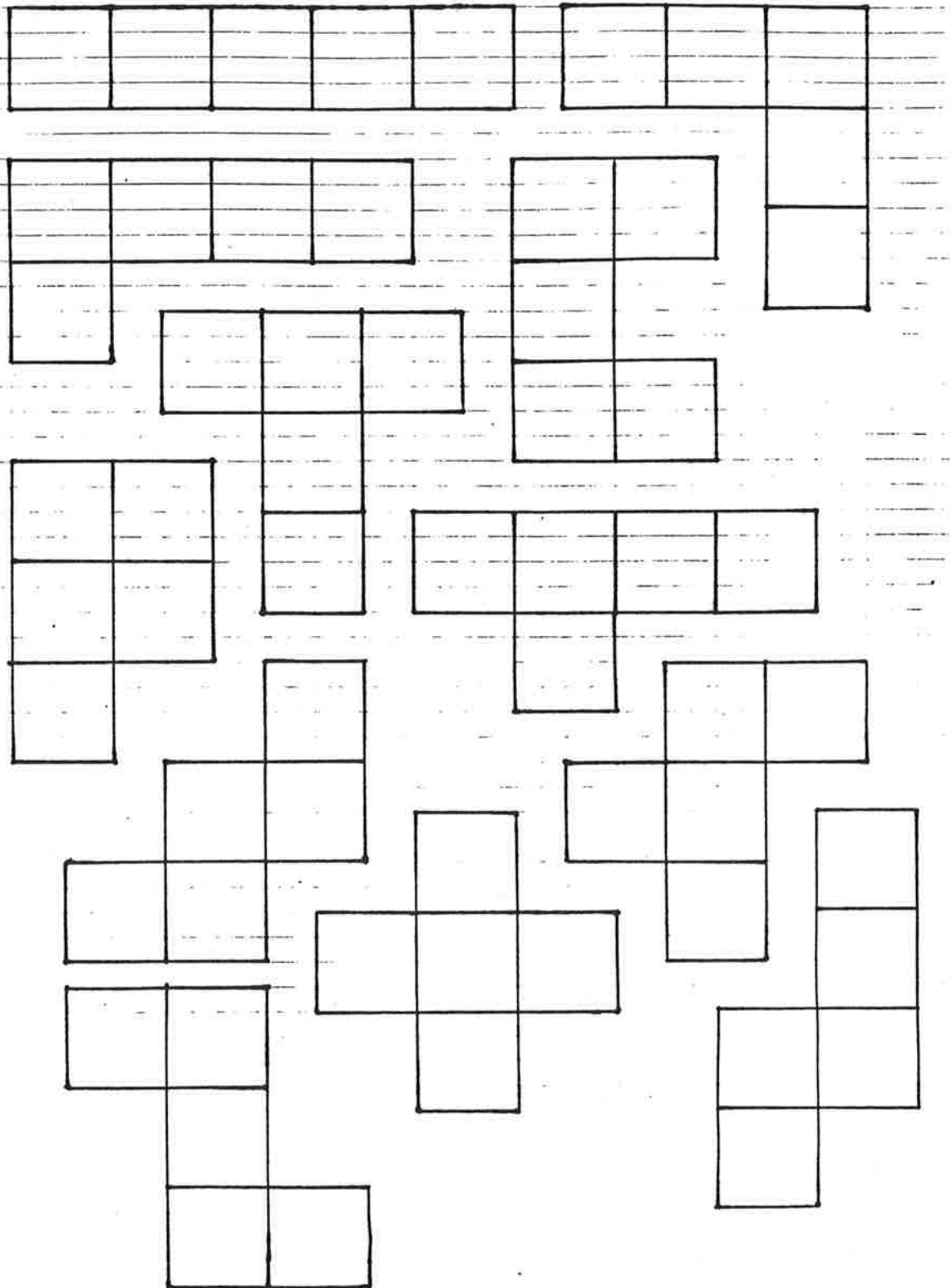
Summer Rain is soft pastel colors, sheer fabrics collaged over painted fabrics creating the gentle spirit of summer. The silver embroidered circles are the rings created when rain fell on the quiet surface of the bog's pond.

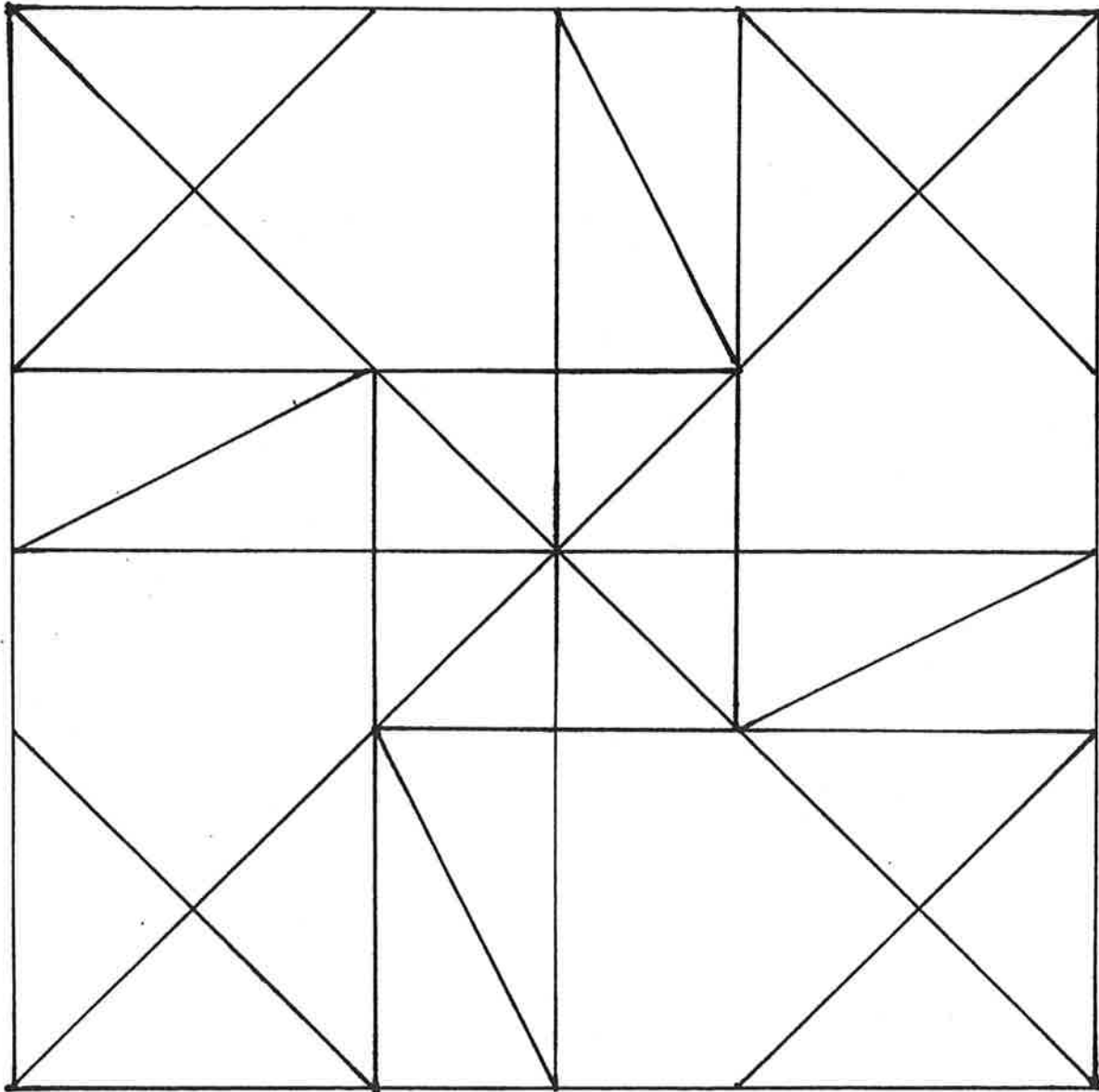
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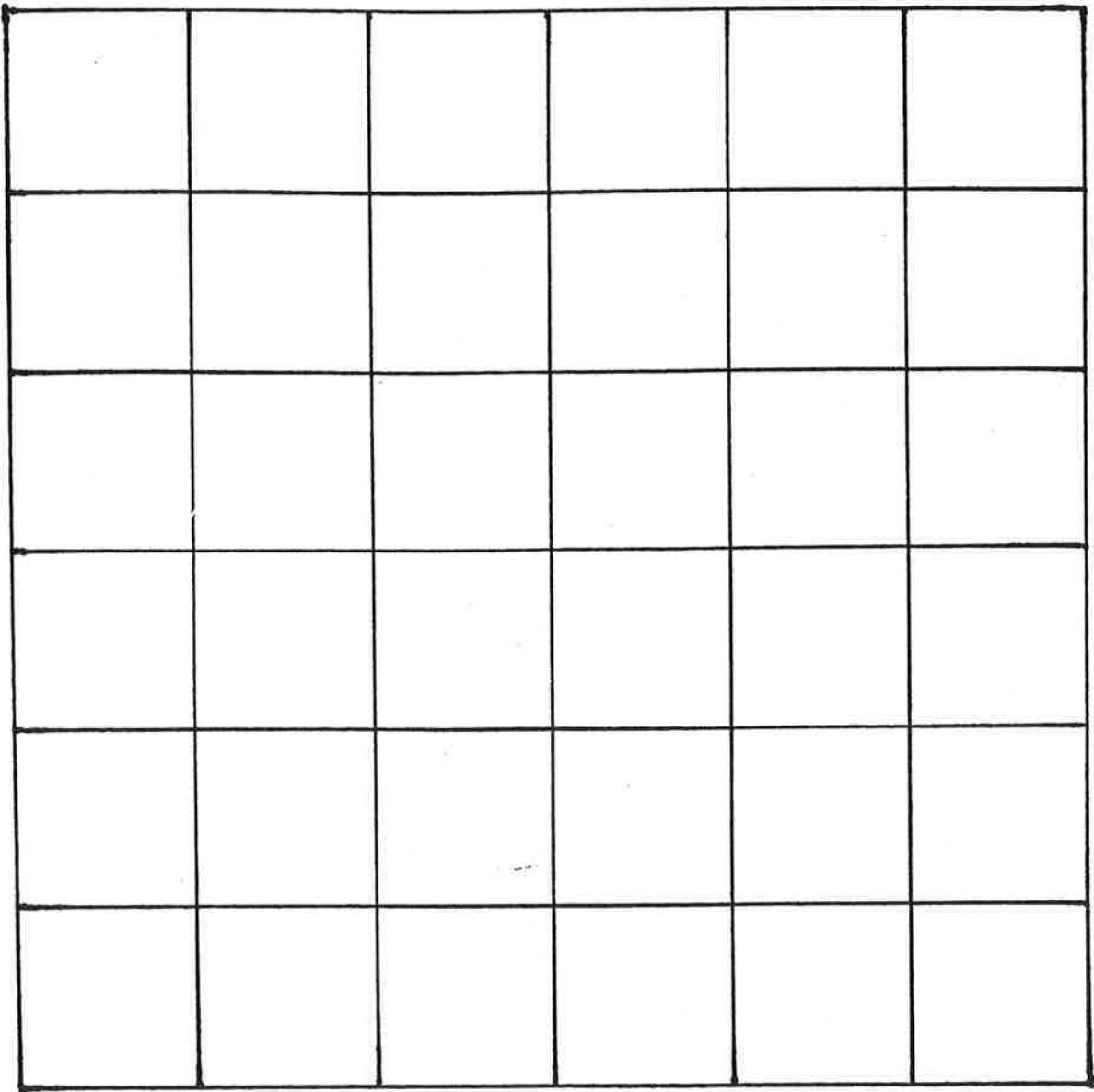
Maude May
A BIRD IN THE HAND...
29" by 28"

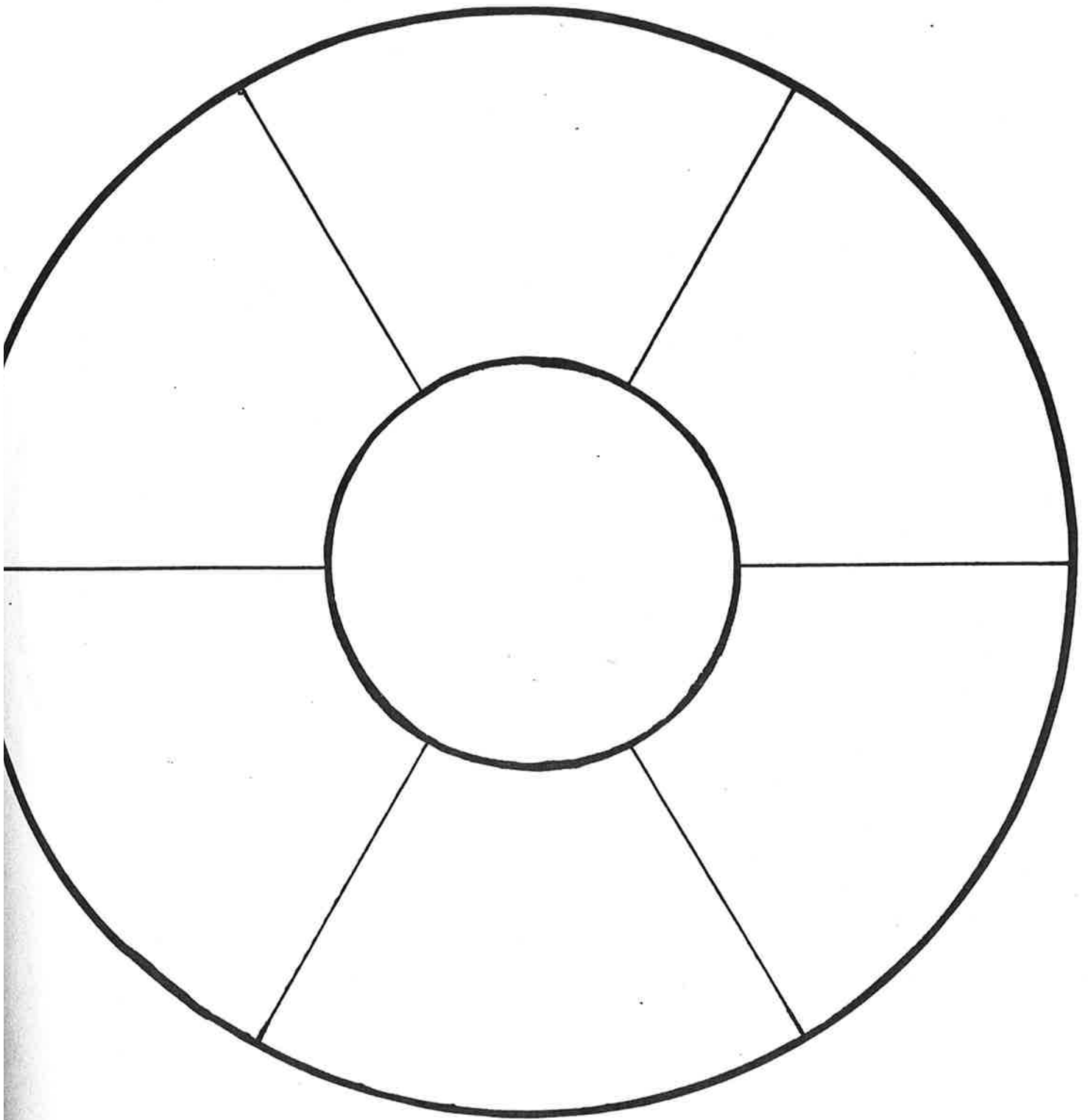
The shape of hands, especially children's, continues to intrigue me. Reaching for a hug, reaching for toys, reaching to do everything because it's all new and different, reaching for more.

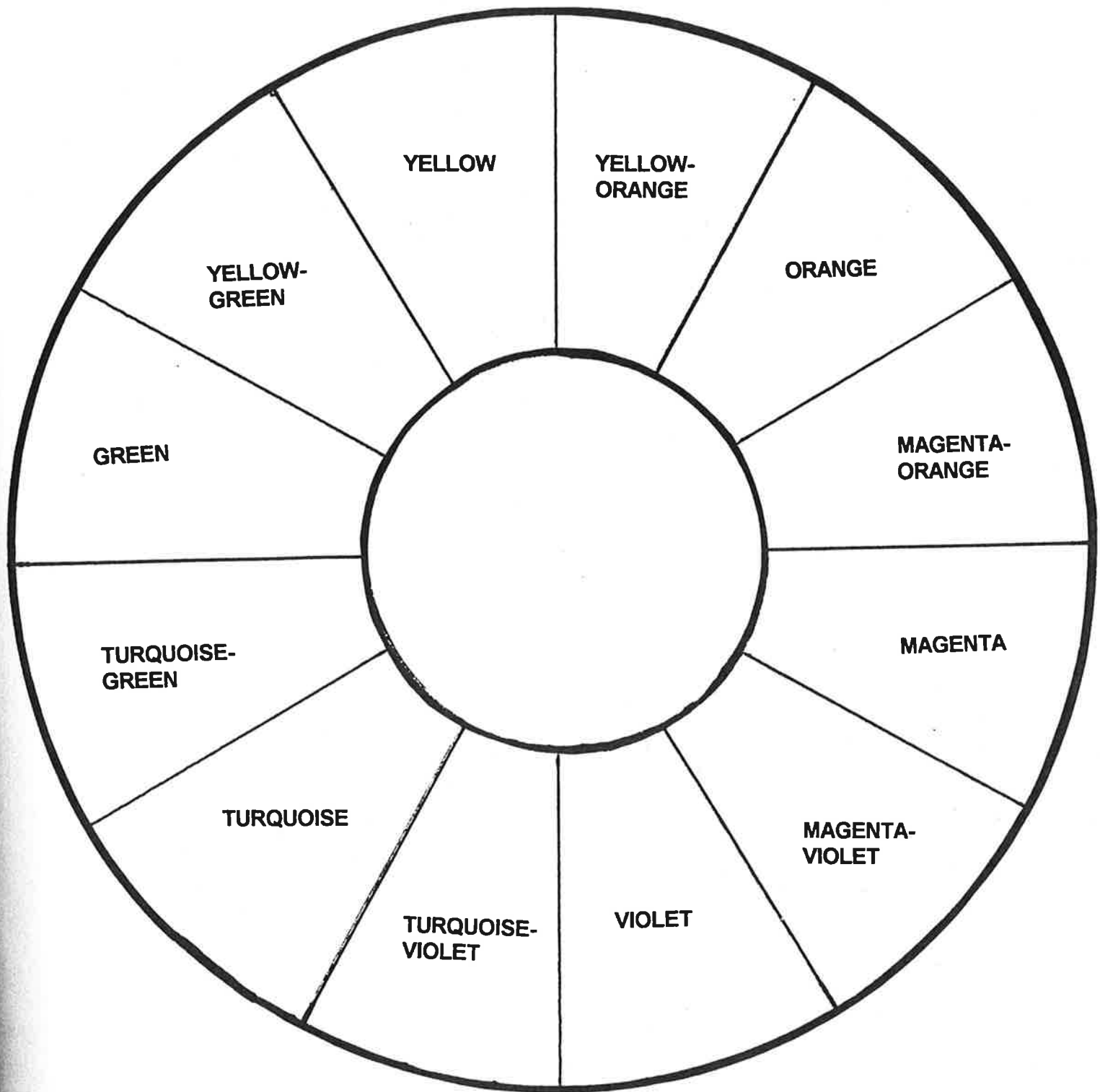


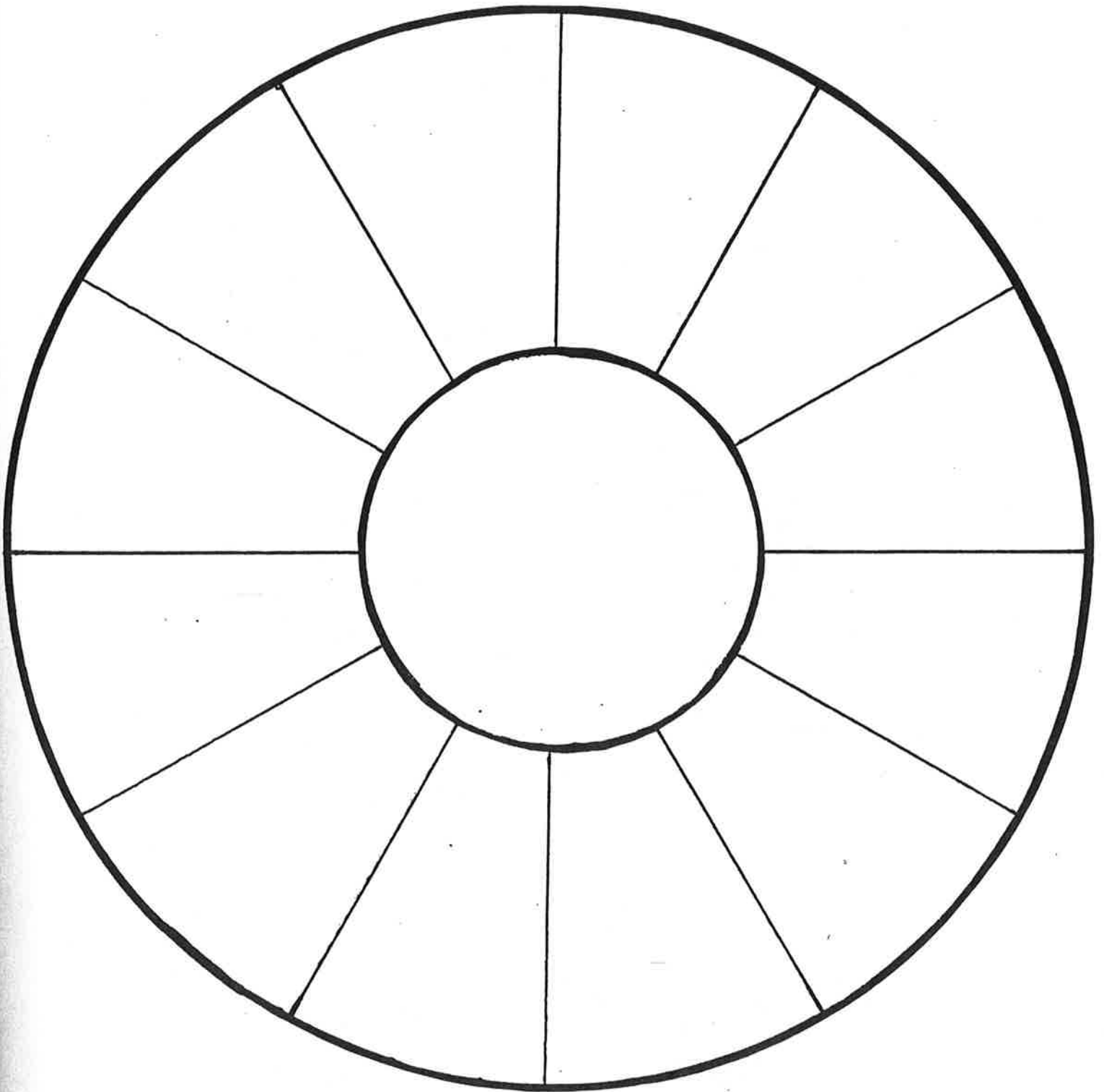


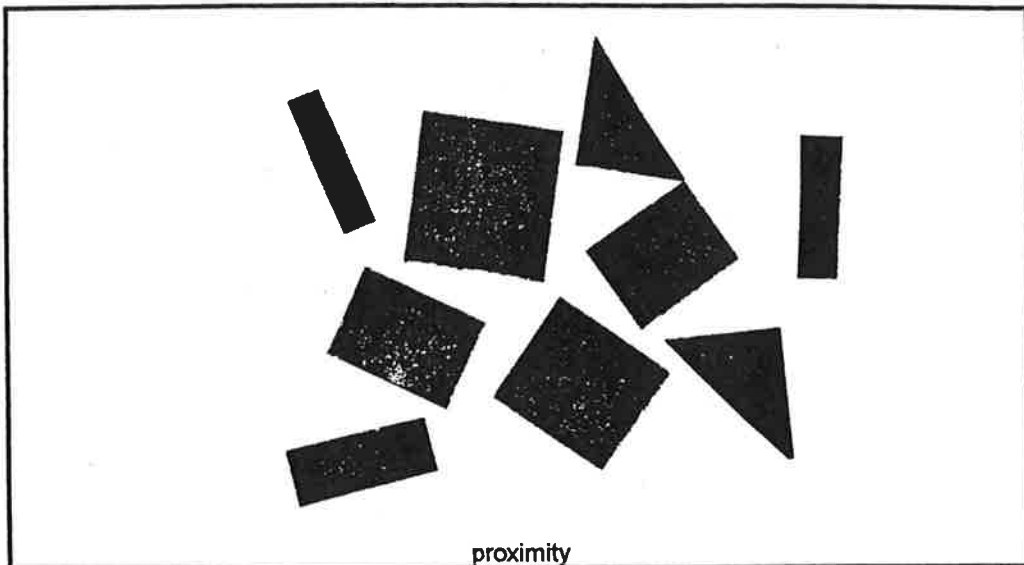




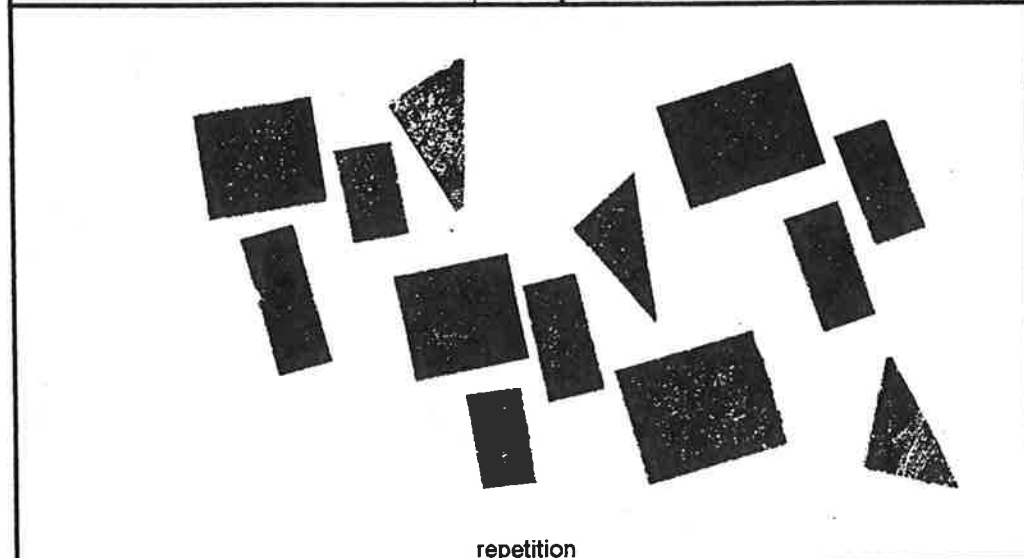




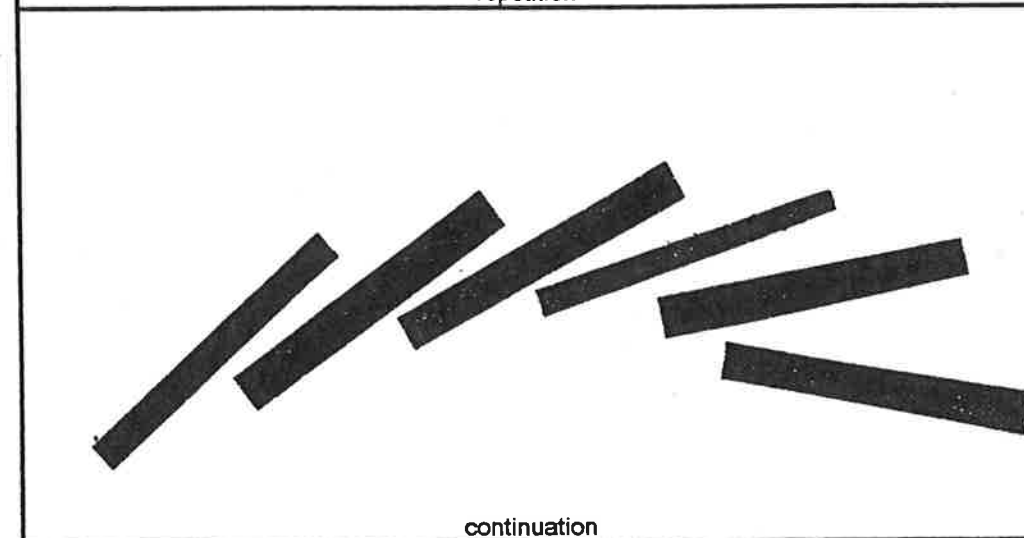




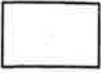

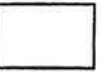



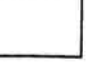
proximity

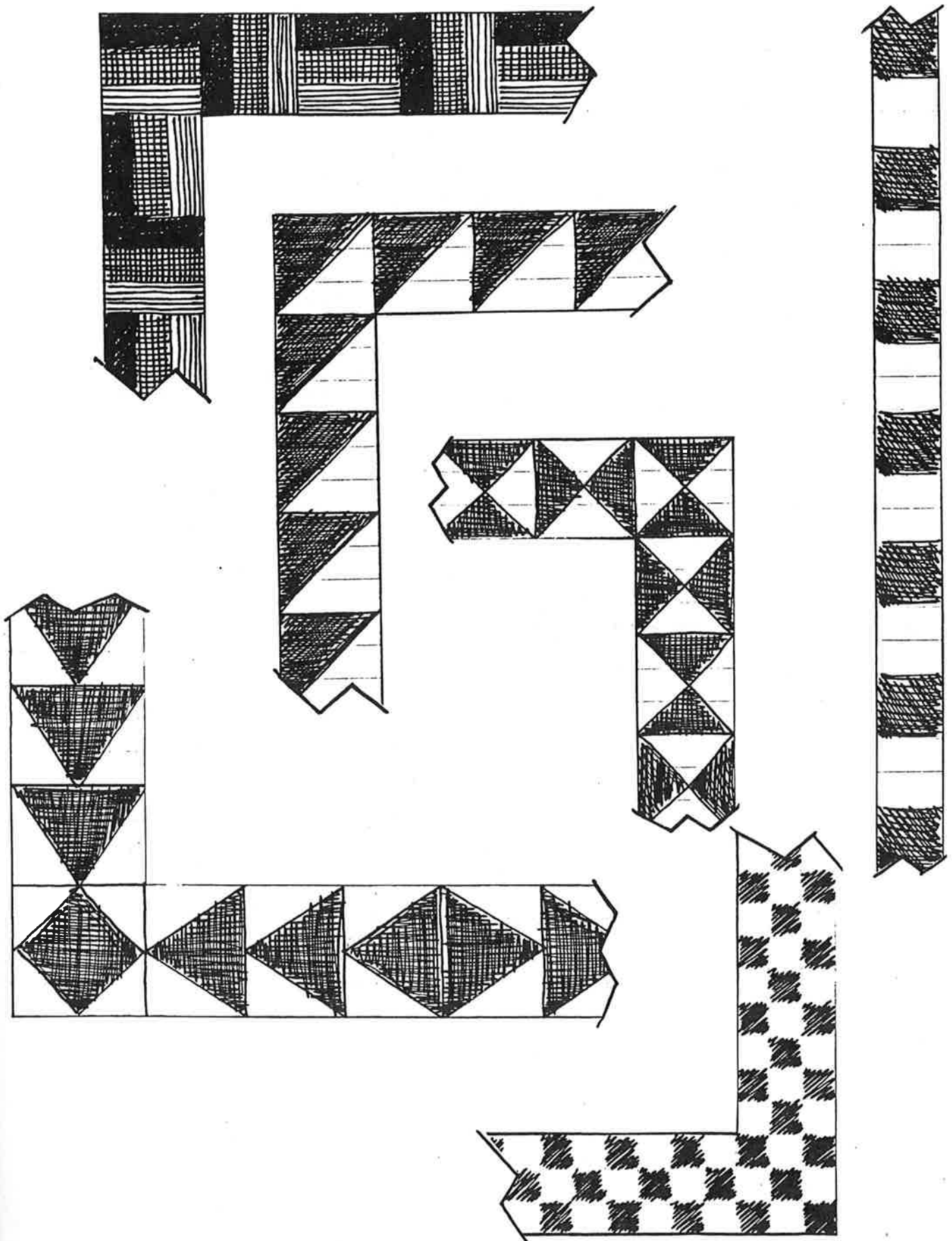


repetition



continuation

darkest	1	2	3	4	5	6	7
							



SUPPLIERS

BLUEPRINT--PRINTABLES, 1504 #7 Industrial Way, Belmont, CA 94002. 800 356-0445. A set of twenty pre-cut cotton quilt blocks treated for sun printing, Styrofoam board, and instructions cost \$25.50, including shipping.

DARMA TRADING COMPANY, call 1-800-542-5227 or write PO Box 916, San Rafael, CA 94915, for a free 100 page catalog. Dyes, paints, fabric to do both, plus tools. You will also find "Magic Transfer Paper", great for use with children's drawings—just photocopy in color or black and white on to this paper and transfer image to cloth with an iron.

DOVER PUBLICATIONS, INC., 31 East Second Street, Mineola, N.Y. 11501. A free quarterly updated book catalog on a wide variety of arts and crafts books, plus clip art, stencils, postcards, historic books.

PRO CHEMICAL & DYE, PO Box 14, Somerset, Mass. 02726 or call 508-676-3838 for free catalog. Inks, pigments, dyes and tools for stencil and screen printing.

RUPERT, GIBBON AND SPIDER, INC., PO Box 425, Healdsburg, CA 95448 or call 800-442-0455 for free catalog. Bulk fabric, wide range of dyes, and more.

WEAVING WORKS, 4717 Brooklyn Avenue East, Seattle, WA 98105, or call 524-1221. They should have just about everything anyone would want to dye fibers using natural or synthetic components, plus a knowledgeable staff and accessible products.

**** This listing is for specialty items. Don't forget all the wonderful fabric and art supply stores in our area.**

GLOSSARY

APPLIQUÉ - Derived from the French *appliquer* meaning "to apply" or "to lay on". Sewing one cut piece onto another, larger piece. Very often, flower and leaf shapes are sewn onto a bed-sized piece of fabric to make an appliqued quilt top.

BACKING - The bottom layer of a quilt or any patchwork project with a front and back or right and wrong sides. The backing fabric generally is pieced to size from solid-color or print fabric that complements but does not compete with the pieced or appliqués top.

BATTING - The soft inner layer of the quilt. Batting is used to trap air in layers of spun fiber for warmth in quilts used on the bed. Batting, when quilted as desired, has the effect of providing dimension to a quilt that can either hang on the wall or be used on the bed.

BLOCKS - One complete unit of a quilt pattern (usually a square), composed of a single patch or several smaller shapes sewn together.

BORDERS - Horizontal and vertical strips of fabric stitched onto a quilt top to frame the finished design.

SASHING - Strips of fabric (usually 1 to 4 inches wide) used to join together completed blocks to form a quilt top.

QUILT - Usually a three-layer fabric sandwich stitched together with needle and thread by a running stitch. The middle layer is called the batt or batting, and the layer intended to be shown is called the top. The remaining layer, the back, is often, but need not be plain.

QUILTING - Sewing together the layers of a quilt with a running stitch. Also, such a stitch as applied to the quilt or the pattern created by the stitches.

SASHING - A border placed between

TEMPLATE - A pattern shape made of a durable material; used to trace shapes for appliqué or piecing and to ensure consistency in repeat shapes.

TYING - Attaching the layers of a comforter by taking single stitches and tying the thread or yarn.

WHOLE CLOTH - A quilt or coverlet of which the top layer consists of a single piece of fabric or a surface pieced entirely from the same fabric. The surface pattern on a whole cloth quilt is achieved by painting, dying, appliqué or simply with intricate quilting.

THE WORLD PEACE QUILT

Concerned about the violence taking place in their community and the world, Madison Middle School made a positive statement for peace through fiber. Elaine Cook, Family Life/Art teacher, with the help of Annamae Hayes, School Coordinator, developed the idea and directions for this bi-lingual, interdisciplinary project. Students, teachers, staff members, parents, SPICE, and community members were invited to participate by creating an original cloth picture. The blocks were sewn into a quilt top, and all three layers tied.

The quilt contains nearly 200 individually completed blocks, using such techniques as embroidery, fabric paints, fabric pens, and appliqué. The only directions given were: Visualize what a peaceful place would be like.

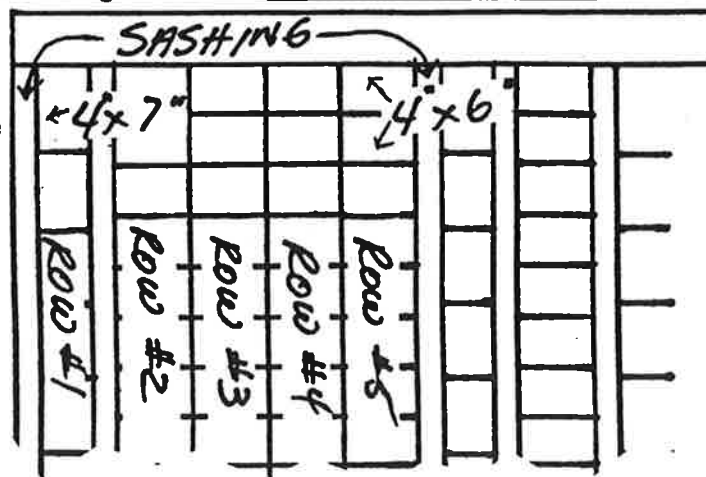
The following material list and instructions are re-created. A $\frac{1}{4}$ " seam allowance is considered in the measurements of cut fabric.

MATERIALS

- Select two pastel cotton colored fabrics and one white. Purchase $1\frac{1}{2}$ yards each color.
- Select a coordinating print. Purchase $2\frac{3}{4}$ yards. Backing is separate from instructions.
- Prewash all fabric.

ACTIVITY

- The finished block units are $4" \times 6"$ - 8 blocks which are $4" \times 7"$ (they are the top and bottom of the vertical rows.) Sometimes the quilt block is vertical (v), sometimes the quilt block is horizontal (h). (See sketch for patterning.)
- Draw a pattern on paper. This quilt has 13 vertical rows. Leave a space between rows 1 & 2, 5 & 6, 7 & 8, 8 & 9, and 12 & 13. These rows will have sashing.
- Draw rows 1, 6, 8 and 13 with 11 blocks in vertical format. Use the longer cut fabric for the top and bottom of these four rows (see cut fabric specifications). Rows 2-3-4-5, 7, and 9-10-11-12 have 17 blocks in each row in horizontal format. (Always measure before cutting for exact dimensions.)
- Cut 184 squares of fabric at $4\frac{1}{2} \times 6\frac{1}{2}"$. Cut 64 squares of white fabrics, 58 squares of pastel color #1, and 62 squares of pastel color #2.
- 8 blocks will need to be cut $4\frac{1}{2} \times 7\frac{1}{2}"$. These will be the top and bottom of the vertical rows.
- Lay out the fabric, or use your pattern, to determine which blocks will be vertical pictures and which will be horizontal pictures.
- Create wonderful peaceful pictures using the above techniques.
- Alternate the pictures on the floor or a table in a pleasing arrangement.
- Stitch squares together to form rows. Each row should measure 69" approximately. Adjust if needed. Measure before cutting sashing to that length.
- Cut 6 strips of $3" \times 69"$ print fabric for vertical sashing. Place sashing between rows as explained previously. A sashing strip is also placed at the beginning of row #1 and at the end of row #13.
- Cut 2 strips of $3" \times 75"$ print fabric. These are border strips. Sew one border on top, one on bottom. The top and bottom should measure approximately 75". Measure before cutting.
- You have a quilt top, ready to be tied or hand/machine quilted. See books listed in bibliography for additional information regarding the finishing of this quilt top.



QUILT BANNERS

In an attempt to include all students in a quilt project, Broadview-Thompson Elementary School hired artist, Lorraine Torrence. Ms. Torrence devised three basic methods, according to grade level and ability, to work with students in their classroom. Students made individual quilt blocks which were sewn into banners. These banners hang in the halls of the school.

Recommendation: Include preliminary activities such as math manipulatives, paper design units, geometric patterning skills, cutting and pasting, and historical background of quilts and quiltmakers. This information is useful for students in order to understand the rich heritage of the past as well as the skills involved.

The following information is re-created from notes and the artist's memory.

PROJECT DESCRIPTION

Every child in the school produces one 8" square (finished size) quilt block using a technique which is appropriate to the child's age group. The banners will be two sided to make use of 20 blocks per banner. Ten mixed technique blocks are combined in a two down, five across configuration, with sashing and borders. A $1\frac{1}{2}$ " seam allowance is considered in the measurements and sewing of fabric.

Kindergarten - 1st Grade: Children draw on 9" squares of white cotton fabric with colored fabric markers.

2nd - 3rd Grade: Students appliqué felt shapes on a 9" square of cotton fabric by hand sewing with running stitches. The appliqué shapes are designed and cut by the children. The felt shapes create people. (Circles for heads, long rectangles for arms and legs, trapezoids for dresses, larger rectangles for pants, small squares for hands and shoes.)

4th - 5th Grade: Students arrange, then sew by hand 8 triangles together to make an 9" block. (Make a math unit out of this project by having students manipulate the triangles into many different looking patterns before choosing their arrangement.)

MATERIALS

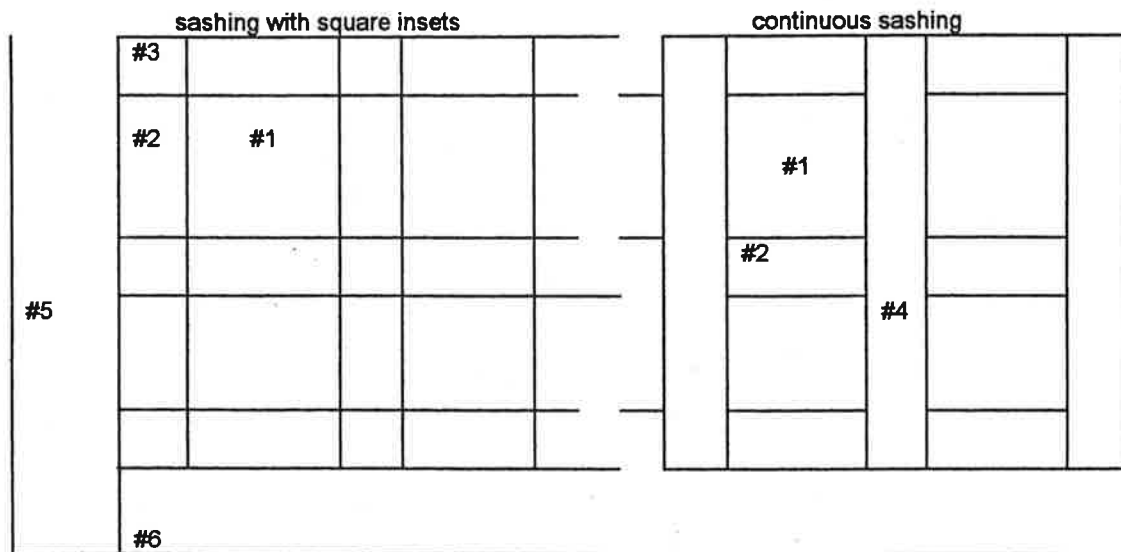
Count students who will be participating in this project. Purchase fabric according to which methods will be used.

- White cotton background fabric.
- Variety of bright colored fabric to be cut into triangles. (Need 8 triangles per block.)
- Fabric pens.
- Colored felt in flesh, primary & secondary colors, and black.
- Large needles for sewing, matching colors of thread (and thimbles, if desired)
- Solid or patterned coordinating fabric, used as sashing piece #2 and in piece #4.
- Variety of fabric in smaller dimensions., used as sashing inset-block piece #3. (Optional - the sashing can be used without any square insets. See *continuous sashing*, drawing on next page.)
- Coordinating border fabric in 6" widths. Measure before cutting.

ACTIVITIES

To make one side of one banner:

- Prewash all fabric before cutting. (Do not wash felt.) Always measure blocks and units before cutting sashing or borders.
- Cut seven 9" x 9" squares. Decorate three blocks with fabric pens.
- Students cut felt shapes, arrange and stitch them onto four blocks.
- Cut 27 - 5" squares in half diagonally to create 36 triangles. Sew three triangle design blocks.
- Cut 27 - 3" x 9" strips of sashing per banner side (creates 2" wide sashing when sewn.) (#2's) Used for *sashing with square insets*.
- Cut 18 - 3" x 3" inset squares to be sewn in sashing. (#3's) Used for *sashing with square insets*.
- (Piece #4 shows a *continuous sashing*. Cut six 6" x 23" strips for top, bottom and between blocks, and cut 15 - 6" x 9" strips for sides of sashed border units.)
- Cut two 53" x 6" strips from border fabric. These are sewn to the top and bottom of sashed block units. Cut two 6" x 34" strips from border fabric. These are sewn on each side.
- Manipulate blocks on a table or the floor in a pleasing arrangement.
- Sew block to sashing, according to desired effect.
- Sew border around sashed blocks. Measure before cutting.
- You have a banner top, ready to be tied or quilted by hand or machine. See books listed in bibliography for additional information regarding the finishing of this banner top.



WHOLE CLOTH QUILT

Two classes were combined at Fairmount Elementary to make a quilt based on the book Charlotte's Web by E. B. White. Stephanie Randall Cooper, artist, worked with Judy Cherin and Debra Gallaher's fifth grade classes. The students chose the quilt size, prepared a list of main characters and animals found in the book, plus organized the scenery found on a farm. As a class, decisions were made regarding placement of these images on same size paper as the proposed quilt. The barn, skyline and ground area became templates. The quilt was finished by parents from these classes and hangs in the Library at the school.

The following information is re-created from the memory and notes of the artist.

MATERIALS

- Fabric to size of quilt. Recommendation: 40" vertical x 60" horizontal works well.
- Donated fabric for barn, trees, animals, fences, hills...
- Fabric pens, dye sticks.
- Paint and paint brushes, water for rinsing and thinning paint.
- Fusible interfacing
- White fabric for drawing people, flowers, animals...
- Scissors
- Iron and towels or ironing board
- Newspaper to protect the floor.

ACTIVITY

- Discuss story and cast of characters; list people, animals, things found in the story; decide scale of quilt, placement of images, and methods of creating images on fabric and with fabric.
- Discuss and demonstrate *perspective*. In this way students can appreciate large, forward images and smaller, background images. This comes in handy when creating a fence, garden, trees.
- Choose (draw straws) four students to paint background. Sky uses two colors of blue, the ground uses two colors of green. The paint can be applied as a *wash* by mixing it with lots of water.
- Using paper template, cut large fabric roughly in half to size of sky and ground. Paint. Sew back together. (This creates the horizon line.) Hang quilt background in classroom for students to appreciate.
- Students draw the images they choose on white fabric. Shapes such as hills or trees are drawing on printed fabric.
- Iron images onto the fusible interfacing. Cut out around outline of image or drawn line. Leave paper backing on images until ready to iron in place.
- Arrange background images (hills, distant trees...) first, then work forward with larger images.
- Each student irons their image in place.
- A top is ready to be tied or quilted by hand or machine. See books listed in bibliography for additional information regarding the finishing of this quilt top.

IDEAS FOR OTHER QUILT PROJECTS

The following ideas were given to Lorraine Torrence in her "Quilting with Children" and "Paper Quilts", two classes offered at The Heritage Institute.

THE NEWBERRY AWARD QUILT

Each student reads a Newberry Award book and then draws a rough draft of an illustration of that story. Give students an 8" x 8" square of muslin and have them use some medium to color their designs onto the square. I used embroidery paint. We placed the final products in an arrangement that was pleasing to the eye and decided on coordination colors for sashing and borders. Mothers and students helped sew it together after school and other students hand tied it.

Margaret Click, Vancouver, WA

THE ACCIDENT QUILT

During an art exercise with water colors, we discovered that the paint really seeped through the water color paper. I brought in some muslin squares and the students placed them under the paper we were painting. The seeped-through-designs were beautiful. Students outlined in black, simple figures on the colored muslin. The effect was lovely. The quilt was sewn by one of the moms.

Margaret Click, Vancouver, WA

WOMEN'S HISTORY PAPER QUILT

Students colored pictures of famous women found in a picture book. These pictures were arranged on butcher paper in a quilt-like design. The paper quilt was hung in the main hall to honor women during the month of March.

Margaret Click, Vancouver, WA

ENDANGERED SPECIES QUILT

Middle school children picked an animal on the endangered species list. Besides doing research on the animal and writing a paper about it, each student drew a picture of his or her animal on a piece of muslin. The animal blocks were sewn together with sashing by parent volunteers.

Lesley Dickinson, Seattle, WA

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- Pellman, Rachel and Kenneth Pellman. The World of Amish Quilts. Good Books, 1984. Discussion of Amish lifestyle and pictures of quilts.
- Quilt National. New Quilt 1 and New Quilt 2. Taunton Press, 1993. Quilt National is a juried exhibition held every odd numbered year. The book celebrates the work for the show. Also see New Quilts: Interpretations and Innovations. Schiffer Publishing, Ltd. 1989.
- Quilt San Diego. Visions: Quilt of a New Decade. Quilt San Diego is a juried exhibition held every even numbered year. This book celebrates the work for the show. Look for other books from these shows.
- Rogler, Ingrid. Small Folk Quilters. Published by Chitra Publications, 301 Church Street, PO. Box 437, New Milford, PA 18834. A very good quilting primer for children.
- Root, Elizabeth. Hawaiian Quilting. Dover, NY, 1989. Explains techniques and gives patterns for Hawaiian quilt blocks.
- Rush, Beverly and Lassie Wittman. Complete Book of Seminole Patchwork. Madrona Publishing, Seattle, WA 1982. Reprinted by Dover in 1993.
- Ruskin, Cindy. The Quilt: Stories from the NAMES Project. Pocket Books, New York, 1988.
- Schattschneider, Doris. M. C. Escher: Visions of Symmetry. W. H. Freeman and Company, New York. 1990. In-depth exploration and analysis of Escher's symmetrical drawings.
- Schlissel, Lillian. Women's Diaries of the Westward Journey. Schocken Books, 1992. Actual diaries collected and edited by Schlissel. Realistic and often surprising pictures of the "emigrant's" life.
- Smith, Barbara Lee. Celebrating the Stitch. The Taunton Press, Newtown, CT, 1991. Lots of pictures and interviews and how-to's, all around contemporary embroidery in North America.

- Snyder, Grace. No Time On My Hands. University of Nebraska Press. 1963. Reprinted in 1986 by Bison. A chronicle of the author's mother's journey west as a child. Accounts of many pioneer activities including quilting. Adults or high school students.
- Softow, Willow Ann. Quilting the World Over. Chilton Books, Radnor, PA, 1991. History, background, and patterns of patchwork techniques from around the world.
- Sorenson, Virginia. Plain Girl. Harcourt Brace Jovanovich, 1955, 1983. Scholastic, 1990. While not about quilting, this engaging story about a young Amish girl answers questions about the 'plain' lifestyle.
- Stevens, Peter S. Handbook of Regular Patterns: An Introduction to Symmetry in Two Dimensions. The MIT Press, Cambridge, MA. 1981.
- Stewart, Eleanor Pruitt. Letters From a Woman Homesteader. University of Nebraska Press, Lincoln, 1989. First published 1914. A widow and mother, Stewart traveled west in search of a better life for her and her daughter. The basis for the movie, "Heartland."
- Stratton, Joanna. Pioneer Women: Voices From the Kansas Frontier. Simon & Schuster, 1981. Stratton completes the work her grandmother started, editing the letters and journals of women who settled the Kansas territory.
- Terris, Susan. Nell's Quilt. Farrar Straus Giroux, New York, 1987. The story of an 18 year old girl in 1899 who wants to attend college. Her parents can not afford it, so they arrange a marriage. Nell imposes strict eating rules on herself and her family worries.
- Twelker, Nancyann Johanson. Women and Their Quilts: Washington State Centennial Tribute. That Patchwork Place, 1988. A documentation of quilts in Washington: A sampling of past & present.
- Walker, Alice. In Search of Our Mothers' Gardens. Harcourt Brace Jovanovich, 1983. Walker describes her writings as womanist prose. The title essay especially deals with how our Black grandmothers and great-grandmothers made room for art in their lives and work. Also, The Color Purple. Harcourt Brace Jovanovich, 1982. Life is hard for Celie: sexually abused by her step-father, treated like a slave by the man she is forced to marry, she nonetheless perseveres and grows. Her story illustrates the indomitable courage of the human spirit.
- Wolfrom, Joen. Magical Effects of Color. C & T Publishing, 1992. The manipulation of fabric regarding depth, luminosity, transparency and more are discussed using color examples and creative exercises.
- * Remember Laura Ingalls Wilder and Caddie Woodlawn also quilted!

QUILT AND ART BOOKS FOR YOUNGER CHILDREN

- Alder, Susan S. Samantha Learns A Lesson. Pleasant Company, Middleton, WI. 1986. Samantha, privileged girl in turn-of-the-century New York learns about the realities of factory life from her friend, Nellie.
- Baum, Lyman Frank. The Patchwork Girl of Oz. Rand McNally & Company, 1913.
- Berenstain, Stan and Jan, The Berenstain Bears & Mama's New Job. Random House, 1984. When Mama Bear opens a quilt shop, everybody has to help at home.
- Bierhorst, John; editor. The Naked Bear: Folktales of the Iroquois. "The Quilt of Men's Eyes", pages 101-109.
- Brown, Craig. The Patchwork Farmer. Greenwillow Books, 1989. Woodless book about a farmer whose patched jeans look more and more like his farm.

- Coerr, Eleanor. Illustrated by Degen, Bruce. The Josefina Story Quilt. Harper and Row, 1986. While traveling west with her family in 1850, a young girl makes a patchwork quilt chronicling the experiences of the journey and reserves two special patches for her hen, Josefina.
- Cole, Barbara Hancock. The Texas Star. Orchard Books, 1990. Papa grumbles that the family doesn't need another quilt but is happy to use it after the quilting bee.
- Ernst, Lisa Campbell. Sam Johnson and the Blue Ribbon Quilt. Lothrop, Lee and Shepard Books, New York. 1983. While mending the awning over the pig pen, Sam discovers that he enjoys sewing the various patches together but meets with scorn and ridicule when he asks his wife if he could join her quilting club. Also, Nattie Parson's Good Luck Lamb.
- Erwin, V. Jamie and The Mystery Quilt. Scholastic, 1987. Jamie and friend try to find the maker of an old quilt.
- Epstein, Vivian Sheldon. History of Women Artists For Children. VSE Publisher, 212 South Dexter, Denver, CO 80222. 1987. Examines the roll and opportunity of women in art through out history, from ancient manuscripts to present day, sighting individual examples using photographs. Included, a small chronological selection from the 21,000 women artist listed in a recommended book Dictionary of Women Artists.
- Fair, Sylvia. The Bedspread. William Morrow and Company, New York. 1982. Two elderly sisters embroider the home of their childhood at either end of a white bedspread, each as she remembers it with results that surprise them.
- Flourmoy, Valerie. Illustrated by Jerry Pickney. The Patchwork Quilt. E.P. Dutton, 1985. Using scraps cut from the family's old clothing, Tanya helps her grandmother who has become ill, to make a beautiful quilt that tells the story of her family's life. Use this to inspire some family quilt projects.
- Frank, Agnes. Quilting for Beginners: Patchwork & Appliqué Projects for All Ages. The Mainstreet Press, Pittstown, NJ. 1985
- Geras, Adele. Apricots at Midnight. McClelland & Stewart, Ltd., 1977. An elderly London dressmaker entertains a young relative with memories of the world of her youth, evoked by the scraps from elegant dresses that she has sewn into a patchwork quilt.
- Hoellwarth, Cathryn Clinton. The Underbed. Good Books, Intercourse, PA, 1990. A little boy is scared of a monster, underbed, until his mom helps exterminate it.
- Hopkinson, Deborah. Sweet Clara and the Freedom Quilt. Alfred A. Knopf, 1993. Sweet Clara dreams of freedom and uses her needle to find her way North, and to lead others there also.
- Irving, Jan. Raising the Roof: Stories and Activities for Children. Featuring Houses. "Blanket Full of Love", page 95. A simple story where a patchwork blanket is made from a family's rags. The author suggests that you tell this story using nine squares of cloth on a flannel board as you tell this story.
- Jagendorf, M.A., editor. Noodlehead Stories from Around the World. "Aili's Quilt", pages 196-201. A silly woman makes a quilt for her husband, but it's too short.
- Johnston, Tony. Illustrated by Tommie de Paola. The Quilt Story. G. P. Putnam and Son's, 1985. A pioneer mother stitches a quilt for her daughter. Many years later, another mother mends it for her little girl.
- Jonas, Ann. The Quilt. Greenwillow Books, 1984. A little girl is given a patchwork quilt. At bedtime she amuses herself by identifying the materials used in its making.
- Kinsey-Wamock, Natalie. The Canada Geese Quilt. Cobblestone Books/Dutton, New York, 1991. Ten year old Ariel make a special quilt to cope with changes on her Vermont farm.

- Kurtz, Shirley. The Boy and the Quilt. Good Books, Intercourse, PA, 1991. With a little help from his mom, a young boy make a quilt of his own.
- Laury, Jean Ray. No Dragon on My Quilt. American Quilters Society, 1990. A little boy is afraid to go to sleep because of 'dragons' until his grandmother makes him a special quilt.
- Martin, Jacqueline Briggs. Bizzy Bones & The Lost Quilt. Lothrop Lee & Shepard, 1988. Bizzy loses his special quilt but friends help make a new one.
- Mills, Lauren. The Rag Coat. Little Brown & Company, 1991. The neighborhood women work together to make a young girl a much needed coat which brings jeers from her schoolmates... until she tells them the stories belonging to the patches that make up the coat, stories that are really their own because the patches came from their families.
- Moskowits, Stewart. Patchwork Fish Tale. A plain patchwork tooth fish bites off more than he can chew.
- Patterson, Katherine. Lyddie. Puffin Books, New York, 1991. Lyddie, a young farm girl, goes to Lowell, Massachusetts to work in the cotton mills and save her family's farm.
- Paul, Anne Whitford. Eight Hands Round: A Patchwork Alphabet. Harper Collins, 1991. Each letter gets a traditional quilt block and musings over the origin of the design and its name.
- Pellowski, Anne. The Family Storytelling Handbook. "Grandmother's Apron: A Quilt Story", pages 113-117. Grandmother makes a quilt from the aprons she always wore. Each square holds a story of her adventures with her grandson.
- Polacco, Patricia. The Keeping Quilt. Simon & Schuster, 1988. An immigrant family remembers the Old Country with a quilt to be handed down through generations.
- Ringgold, Faith. Tar Beach. Crown Publishers, 1991. Cassie flies above her New York City home in this story quilt by artist Ringgold.
- Roth, Susan L. and Ruth Phang. Patchwork Tales. Atheneum, 1984. A grandmother tell the stories behind each block of a patchwork quilt. Simple woodcut illustrations of ten traditional quilt patterns provide ideas for quilt crafts.
- Sills, Leslie. Inspirations: Stories About Women Artists. Albert Whitman & Co., Niles IL, 1989. Four artists profiled for children with lots of color pictures and explanations of the pieces' meanings. One of the artists is Faith Ringgold.
- Thieme, Jeanne. Happy Birthday, Kirsten!. Pleasant Co. Pioneer girls make a friendship quilt for their teacher.
- Vincent, Gabrielle. Ernest and Celestine's Patchwork Quilt. Greenwillow Books, 1982. Ernest and Celestine make a patchwork quilt. When they realize only one can make use of it, they make another.
- Whittington, Mary K. The Patchwork Lady. Harcourt Brace Jovanovich, 1991. Beautiful pictures add to this story about celebrating differences.
- Willard, Nancy. The Mountains of Quilt. Harcourt Brace Jovanovich, 1987. Four magicians lose their magic carpet. It eventually finds its way into the center of a grandmother's quilt.
- Williams, Sherley Anne. Working Cotton. Harcourt Brace Jovanovich, 1992. Simple, graceful, poem about what it actually means to 'work cotton' is poignantly illustrated by Carole Byard.

PERIODICALS

American Quilter. American Quilters Society. Quarterly publication. \$15.00. PO Box 3290, Paducah, KY 42002-3290.

Arts & Activities. Publishers' Development Corp. Monthly publication. \$24.95/10 issues per year. 591 Camino de la Reina, Suite 200, San Diego, CA 92108. Geared to K-12 teachers. Wide range of mediums, ways to look at art, projects to do with kids, and young artists and their work.

Fiberarts. Altamont Press. Bi-monthly publication, \$21.00/5 issues per year. Fiberarts Magazine, 50 College Street, Asheville, NC 28801.

Piecework. Interweave Press, Inc. Bimonthly publication. \$26.00/6 issues per year. 201 East Fourth Street, Loveland, CO 80537. Traditional fiber crafts covered with historical and cultural background.

Quilters Newsletter Magazine. Leman Publications, Inc. Monthly publication. \$19.95/10 issues per year. How-to features and interviews with artists, mix of traditional and contemporary quilts.

Surface Design Journal. Surface Design Association, a non-profit educational organization. Quarterly publication. \$45.00/4 issues.

Threads. Tauton Press. Bi-monthly publication. \$28.00/6 issues per year. 63 South Main Street, PO Box 5506, Newtown, CT. 06470-5506. Well-written articles and clear photographs cover all aspects of the fiber and textile arts.