

## **Multi-Ethnic America Investigated Through Quilting**

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### **INTRODUCTION**

How can I use the seminar “*What does it mean to be an American? Multi-Ethnic Literatures of the United States*” in a middle school math class room? Math is about numbers, operations, and reasoning; patterns, and algebraic thinking; geometry; measurement; and statistics and probability. These are the five strands of Mathematics taught in Grades 5 – 8. Mathematics has nothing to do with cultural diversity and being an American, or does it? How can multi-ethnic literature be incorporated into a mathematical unit or vice versa? Students must be skillful in reading math books to understand the technical vocabulary and abstract procedures necessary to solve complex mathematical problems. Is there a need for them to read fiction and non-fiction literature in their math class?

Being an American is the unifying theme in this unit. America is no longer the melting pot as she was once described, but a patchwork quilt; Jesse Jackson noted in his speech to the Democratic National Convention on July 16, 1984 that “America is not like a blanket – one piece of unbroken cloth, the same color, the same texture and the same size. America is more like a quilt – many patches, many pieces, many colors, many sizes, all woven and held together by a common thread... all of us fit somewhere” (Jackson). The metaphor of America as being a melting pot gave the impression that every one became the same through assimilation and acculturation, that they lost their cultural identity. But visualizing America as a patchwork quilt lets every culture retain their heritage and still remain a part of the American Family. All ethnic groups have common traits, but it is how they express those traits that help to define their American culture.

I teach math at T.H. Rogers Middle School. This year I am teaching only 6<sup>th</sup> grade. All of my students are in Pre-AP Vanguard classes. My classes are made up of white (24%), Asian (44%), African-American (6%), and Hispanic (26%) students. Within these general areas, of course, students are from a number of countries. For example, my Asian students are from China, Japan, Vietnam, India, and Pakistan. Many of the Hispanic students are from Mexico, but I have many from Central and South America as well as from the Caribbean. African and American blacks make up the African-American students. My white students have their own diversity: Croatian, Russian, Italian, and French, among others.

### **OBJECTIVES**

This unit will consist of objectives from English Language Arts, Social Studies and Mathematics.

#### **English Language Arts**

Students will read from a variety of narrative, expository, and media texts to participate in independent and teacher-directed author and genre-specific studies. (ELA.6.8A). They will be involved in small group and class discussions where they will offer observations, make connections, react, speculate, interpret, and raise questions in response to texts (ELA.6.11A).

#### **Social Studies**

Students will use the objectives developed in the Cultural World lesson. They will use the definition of culture, and list and describe the traits that define cultures, such as language, customs, and celebrations (SS.6.15.b.). They will also identify the aspects of culture that can be divisive or unifying (SS.6.17.a.).

### **Mathematics**

Students will demonstrate their knowledge of geometric shapes, angles, polygons, and circles in identifying and making a quilt (Math.6.6.B). Measurement skills, determining the area, perimeter, and angle measure (MATH.6.8A), will be employed by having the students design their quilts. Students will use transformation geometry (translation, rotation, reflecting, and dilation) to create designs of patterns in the quilts (MATH.7.8C). Students will identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics (MATH.6.11A). Students will use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness (MATH.6.11B).

### **RATIONALE**

Literature can be a part of any discipline; in my class it can be used to spark students' interest in a particular mathematical topic. Marilyn Burns states, "Connecting math to literature can boost the confidence of those who love books but are 'math-wary.'" And students who love the abstraction of math can learn to appreciate stories in a whole new way" (27). Literature can teach mathematics through a storyline that can develop a mathematical concept, pose problems for students to solve, develop understanding of concepts with mathematical illustrations, motivate the reading of the literature with captivating illustrations, and invite students to create their own problems and stories (Thiessen ix-xi). Math teachers are always trying to provide students with a variety of experiences to make the study of mathematics more inviting and relevant. Integrating literature into the math curriculum will establish a real world connection for students.

The linking of literature and math is easily accomplished in the elementary grades since most classes are either self-contained or divided into only two areas: Language Arts and Social Studies and Mathematics and Science. The majority of examples of the use of literature and math in the classroom are found in the elementary school. Teachers of these classes have more flexibility in teaching interdisciplinary units than secondary teachers do. Having taught a 4<sup>th</sup> grade self-contained class, if I needed to extend a particular lesson beyond the usual time allotted, this could be done, and I could also incorporate several disciplines into one unit. Secondary teachers are limited by a bell schedule and teaching between four to seven classes a day, which might be an obstacle to spending what precious time we have to utilize the reading of literature in a secondary math class. The logistics of planning interdisciplinary units is not as daunting an undertaking in the elementary setting as it is in the secondary. Having said this, I feel that teachers in middle and high school should link literature and math together.

The students of the 21<sup>st</sup> century will be the workforce of a global world. More and more the world is becoming flat as written by Thomas Friedman in his book titled *The World is Flat*, which discusses how globalization is affecting the United States. Our students must be able to function in this fast changing society. He states that "...there is something about the flattening of the world that is going to be qualitatively different from the great changes of previous eras: the speed and breadth with which it is taking hold" (Friedman 49). The world is changing economically, technologically, and culturally through globalization. Economics and technology are already infused in the mathematics classroom, but culture, especially multi-ethnic culture is not. Multicultural education should be part of the mathematics classroom just as it is in language arts where students read literature of many cultures and in social studies where students study different cultures. Math is perceived as very abstract, and many students do not recognize the

relevance of it to their lives. There needs to be a multicultural aspect taught in mathematics. This aspect is from “the mathematical ideas of people who have generally been excluded from discussions of mathematics. The people are those who live in traditional or small-scale cultures; that is, they are by and large, the indigenous people of the places that were ‘discovered’ and colonized by Europeans” (Ascher 1).

Mathematics developed through the interaction of mankind with his environment. How mankind counted objects, measured distances, designed houses, located villages, explained his thoughts and played games are examples of this interaction. Every culture used these activities for their day to day survival. This is the cultural diversity of mathematics. There exists a profound need for the study of mathematics to embrace diversity in the classroom. The demographics of the United States indicate an ever increasing growth rate of minorities (African-American, Hispanics ) and the decreasing growth rate of White Americans in the United States, but these groups ( African-American, and Hispanics) are greatly underrepresented in the fields of mathematics and science. Students, from underrepresented groups, need to be able make the connection between the mathematics they are learning in their classroom with their everyday and future lives in order to become productive American citizens. Students need to see their culture represented in the math class.

Because our classrooms are a microcosm of the world in which we live, students need to understand the diversity of their American culture. Multicultural education is already incorporated into Social Studies and sometimes into Language Arts, but it should be in Math and Science as well. In the past “there have not been many links to student’s culture in the mathematics classroom” (Strutchens). In my unit, students will investigate aspects of American Identity: self identity, heritage, and family values. I will accomplish this through an interdisciplinary unit on quilting.

Heritage, the cultural aspect in a diverse society, such as America, plays an important part in all of our lives, but especially for students in middle school who are starting to search for their own identity. I chose quilting as the unifying thread to make the connection because quilting can be found in the subjects taught in middle school. Quilting is a metaphor in literature. In Alice Walker’s “Everyday Use,” in order to validate her Blackness, the older sister wants to take the family quilt with her when she leaves home. Social studies uses examples, such as the Silk Road, to trace the movement of people and culture from one area of the world to another. In mathematics, the study of quilting helps students to visualize the abstractness of geometry. In art, the craft of quilting is used for utilitarian or art form.

Though quilting is an international art, the focus will be on how quilting is done by different cultures in the United States. I will have books and stories representative of the many ethnic cultures involving their use of quilts. Many cultures used quilts for warmth, but the way they were designed and constructed was different. For example, Japanese quilts were used for warmth and to show off women’s sewing skills. A very different type of quilting was used in West Africa to provide armor for warriors and their horses. In West Africa colorful banners and wall hangings tell the stories of the rulers of that nation (Wilson 17-31). Once students have looked at international examples of quilting, they will focus on quilts that have been made across the centuries in America.

## **UNIT BACKGROUND**

In her book *Enthnomathematics: A Multicultural View of Mathematical Idea*, Marcia Ascher speaks about how cultures are very multifaceted. Ethnomathematics is the study of traditional people’s use of mathematics. Ascher states that the cultural aspect we should be concerned about is how people “share a language; a place; traditions; ways of organizing, interpreting, conceptualizing and giving meaning to their physical and social worlds” (2). There are similar

and dissimilar ideas expressed by different cultures. The “traditional people’s” ideas of mathematics are not same as the Western ideas. For example, there were many different types of number bases. The Western culture uses base 10, while the Mayans used the vigesimal (base 20) number system. The Yoruba also used the vigesimal system, which is a very complicated system that “relies upon subtraction to a very high degree. But to the Yoruba it seems perfectly natural” (Zaslavsky 204). Another example of how numbers are viewed occurs when the question “how many?” (Ascher 6) is asked and plays a significant role in the Western mathematics. Ascher states that “our belief in the objectivity of numerical statements is so strong that we associate numbers with human intelligence via IQ’s, college readiness via SAT scores and even the happiness or satisfaction via other scores. Most other cultures have less belief in the value of the information conveyed by numbers” (Ascher 6).

### **Immigration Background**

The ethnic groups and their cultures being studied through their use of quilting are Native American, Russian Jewish-American, Mexican-American and African-American. America is a country of immigrants and it is important to know how and why these groups immigrated, whether voluntarily or forced. In order to understand various cultures, it is important to know their history.

#### ***Native American***

It is difficult to determine when the ancestors of present-day Native Americans came to the Americas or from where they migrated. One theory suggests that they migrated by foot on the land bridge across the Bering Strait around 11, 500 years ago. With the advancement of new technology, researchers are finding evidence of a coastal migration along the Pacific Ocean which occurred about 12,500 years ago (Fitzhugh). When Columbus “discovered” America, there were more than “one hundred million people, from the frigid steppes of Patagonia at the furthest extremity of South America to the dark forests of Newfoundland” already existing in the Americas (Dorris 3). These people were formed into hundreds of cultures and spoke “a multiplicity of languages and dialects derived from at least ten multiple linguistics families” (4). The peoples of the North America were culturally different from Meso and Latin America, namely the Aztec and Inca. The differences proved to be puzzling to the Europeans. Whereas the Aztec and Incas held similar goals to the Europeans, “a thirst for conquest, the accumulation of gold, a consolidation of political power in the hands of a single leader and his coterie,” the American Indians did not (7). The American Indians had no standing armies, property and authority were governed by a matrilineal society, and land was viewed as a necessity for human survival (7). The hunger for land by the early colonists to present-day Americans proved to be dangerous to the American Indians. Indians have been removed from their lands as a result of many wars, broken treaties, forced removal through the Indian Removal Act of 1830 signed by President Andrew Jackson (Dunn 48), the belief of Manifest Destiny of the 1840s (60), and being placed on Indian reservations by the late 1800s (92). Even now American Indians (Sioux) are being ousted from land given to them by the Fort Laramie Treaty of 1868 (112).

#### ***Russian Jewish-American***

The Jewish immigrant, whether from Eastern Europe or any other country, came for the same reason: to escape discrimination. Jews were persecuted at the start of the 4<sup>th</sup> century Roman Empire by the fathers of early Christianity who stripped away their Roman citizenship. “The canons of the church councils of the fourth century helped make anti-Jewish sentiments traditional in the Christian church” (Seaver 85). These sentiments have followed the Jewish people throughout the centuries. They were pushed out of Spain during the Spanish Inquisition, even though they were instrumental in funding and providing maps for Columbus’ voyage to America. Six Jews accompanied Columbus on the trip to America (Suhl 3). Many Jews also went

to Eastern Europe to settle in Holland and Poland. During the mid 1600s, many Jews came to New Amsterdam but were asked to leave by Peter Stuyvesant, then governor. He had to change his request when he was informed that many of the Jews “were among the important investors in the Dutch West India Company (the company who appointed Stuyvesant governor)” (7). During the Russian Pogroms, millions of Jewish were driven out by the semi-official persecution of Jews in the Russian Empire that began in the early 1880s (42). Many of the eastern European Jews were very poor and found work in the booming industry of ready-to-wear clothing factories. They worked under hazardous and dangerous conditions. Eastern European Jews who were skilled in a trade were able to do better than their non-skilled ‘brothers.’ Some opened small stores or sold goods from pushcarts or door to door (Suhl 46-49).

### ***Mexican-American***

Immigration of Mexican-Americans to the United States is not a recent phenomenon. Several territories west of the Mississippi were settled by Mexicans before the United States, through the popular belief of Manifest Destiny, came to control them by declaring war on Mexico. Before the U.S.- Mexican War ( 1846-48), about 80,000 Mexicans lived in the areas now known as Texas, New Mexico, and California. After the war, those Mexicans who remained were given the option to become Americans or remain as Mexicans, also ensuring that they would enjoy their rights as property owners (Daniels 307-8) through the Treaty of Guadalupe Hidalgo, which ended the war. “In. U.S. courts, the property rights of former Mexican citizens in California, New Mexico, and Texas proved to be fragile. Within a generation the Mexican-Americans became a disenfranchised, poverty-stricken minority” (Griswold del Castillo). During the Mexican revolution of 1910, many fled from Mexico to escape the civil unrest and harsh living conditions. Many were illiterate peasants who provided the needed cheap labor for the agricultural and industrial territories of the southwest. This immigration continued unchecked until 1924 when the U.S. Border Patrol was established. Today, Mexican-Americans are the largest growing ethnic group who “now make up a significant portion of the U.S. population and have become one of the most influential social and cultural groups in the country. Mexican American culture will likely continue to shape U.S. life in language, politics, food, and daily living, and will help define the nation's identity for a new century” (“Immigration...Mexican”).

### ***African-American***

The history of African-Americans is as diverse as the continent of Africa. Since European and Native American labor needed for the economy of the colonies proved to be inadequate, many Africans were brought to the United States during transatlantic slave trade known as the Middle Passage. The slave trade began in the middle of the fifteenth century and lasted until the 1800s when the slave trade was abolished. “In all, some eleven to twelve million Africans were forcibly carried to the Americas. Of those, roughly one-half million were taken to mainland North America, or what became the United States” (Berlin). Not all Africans brought to America remained slaves; there were approximately 59,000 free Negroes in 1790, and 488,000 by 1860 (Dodson 109). Many slaves who were freed before the Emancipation could at any moment be returned to slavery due to changing laws being enacted; for example, the Virginia Law of 1705 stated that "All servants imported and brought into this Country...who were not Christians in their Native Country... shall be slaves” (“From Indentured Servitude to Racial Slavery”). The enslaved Africans came from the many countries of Africa and were thrown “together in ways that undermined the transfer of any single culture” (Berlin). In order to survive the harsh reality of being captured, the forced march from their villages, and the long journey across the Atlantic Ocean, and finally being sold to the highest bidder, the slaves established relationships. “Far from wiping out all traces of their African past, the Middle Passage experience introduced them to other Africans and provided opportunities for them to begin to draw on their collective African heritages to make themselves a new people” (Dodson 47). With the intermingling of the various

peoples of Africa who did not share a common language, culture, religion, or traditions, they had to create new ways of cooperating and developing a sense of solidarity in order to survive the inhumanity of slavery. Despite the differences between the various groups of African slaves, there existed “dynamic, vibrant, expressive cultures”(171). This expressiveness is manifested today in the speech, literature, worship, music, dress, and food of Black Americans.

## **Quilting**

Quilts in America are generally viewed as bedcoverings made of three layers of fabric. Quilted products have many uses, such as garment making, bed hangings, and quilted jerkins worn by soldiers under their armor in the Middle Ages (Gordon 12). There are many types of quilting, such as whole-cloth work, patchwork, appliqué, trapunto, or stuffed quilting. Quilting was generally performed by women for utilitarian purposes, for warmth and conserving scraps of fabrics. Quilting also provided an outlet for women to express their creativity and to socialize. “This act (of quilting) also affords the maker a means of creative expression and legitimate reason for socializing” (Marler 7). Stories and family histories are told through the designs of quilts.

### ***Various Types of Quilting***

The plethora of quilting patterns and techniques provided allows each quilt maker to craft a unique quilt – no two quilts are the same.

#### ***Whole Cloth Quilt***

This quilt is crafted from one large piece of fabric which is cut into pieces and then quilted together to look as one large “whole cloth.” “The beauty of these solid white or colored quilts comes from elaborate, closely quilted designs that bring texture and shadows to the piece” (Breneman). This type of quilting was mainly done by wealthy women who had the time needed to do the skilled needlework necessary to show the intricate floral designs “with feathered and geometric patterns” (Breneman). Whole-cloth has its origins in Britain and France and was brought to America by the immigrants (Breneman).

#### ***Patchwork Quilts***

Patchwork quilting existed as long as mankind knew how to sew. This technique was used to extend the life of valuable fabrics, and as “societies became more settled and more skilled, scraps of cloth were joined together in patterns that were pleasing to the eye and enhanced the value of the newly created article” (Gordon 15). Patchwork quilts, known also as pieced block quilts, became a popular form of quilting in America. Their importance is due to the Industrial Revolution. Colonial and pioneer women in the 16<sup>th</sup> through the 17<sup>th</sup> centuries were not quilters; they did not have the time to quilt because they were “expected to do the spinning, sewing, food preservation, cooking and cleaning while caring for [their] often-large famil[ies]” (Breneman). The quilting of the United States during this period was done by the wealthy who had the time. “The American quilt-making tradition has its roots in the early 1800s. It was primarily during this period that quilt-making became a part of the American woman's needlework experience” (Carroll). Making of textiles was greatly advanced during the Industrial Revolution, making fabric readily available for the homemaker. She no longer needed to spin and weave her own materials. Block patchwork was a way to recycle fabric left over from dressmaking and home sewing and the ability of storing block patterns since space was limited in the homes and in traveling across the country (Gordon 19).

#### ***Appliqué***

Appliqué is the technique of applying a piece of one fabric to a larger background of a different fabric. Printed fabrics were imported from India to England during the early 1800s and were very expensive. This method allowed for more creativity than did pieced block quilting. In appliqué,

the quilter is able to highlight the intricate designs of the piece being applied to the background material rather than just piecing together block quilts. “Baltimore Album” and “Bible Stories” quilts are examples of appliqué quilting. These are just a few of the many types of techniques of quilting used.

### ***Quilting from Different Cultures***

The quilting techniques mentioned were brought to America through the European immigrants. Non-European immigrants also have quilting as part of their heritage.

### ***Native American Quilting***

There are as many examples of Native American quilting as there are Indian tribes. Native Americans did not start quilting until after being “civilized” by European missionaries who taught them the traditional homemaking skills, or until interacting with the American settlers or soldiers who had quilts with them (Breneman). Some examples of Native American quilting are the “Morning star” design of the Plains People, the Seminole Patchwork and Hopi Naming Quilts. Quilting in the Native American culture took its identity through its uses. The Odawa gave quilts as gifts in naming ceremonies; the Ojibwa used quilts to protect the drums from contact with the ground, and the Sioux draped *star* quilts over their sweat lodges (MacDowell 4) There is evidence of Cherokees quilting as early as 1842 when the families “listed old and new quilts in their claims against the United States for possessions left behind during the Removal [the forcible removal of Indians from their homelands in the eastern United States to tracts of land west of the Mississippi]” (10). The students will read about this part of history in *Mandie and the Quilt Mystery*.

### ***Mexican American Quilts***

Mexican-Americans have been quilting since the arrival of the first Mestizo settlers in Zapata and Webb Counties from the late 1700s and early 1800s (Acosta, “Mexican-American Folk Art”). They incorporated their rich tradition of needlework and created *colchas bordads* (embroidered quilts). Many of their quilts were full of colorful patterns constructed in informal arrangements as reported by Dorothy Zoff (Breneman).

### ***African-American Quilting***

African-American women have been quilting since they were first brought as slaves to America. They brought their skill of textile making with them from Africa. With this knowledge, they made the beautiful quilts for their white owners; meanwhile, they were only able to fashion scrap quilts for their own families. Susie Shannon, a slave (Faith Ringgold’s great-grandmother), “made quilts for the plantation owners as part of her duties as ‘house girl.’ Undoubtedly many of the early American quilts with repetitive geometric designs are slave made and African influenced” (Wahlman 19). Characteristics of African-American quilts as noticed by Maude Southwell Wahlman are “1) vertical strips, 2) bright colors, 3) large designs, 4) asymmetry, 5) improvisation, 6) multiple patterning, and 7) symbolic forms. These aesthetic criteria were simply a starting point and in no way was (I) trying to pigeonhole this innovative art” (Wahlman 7). She credits Cuesta Benberry with pointing out the diversity in African-American quilting, which has existed for over the last two centuries. This similarity between the textile designs done in Africa and in Black America can be traced back to the years between 1650 and 1850 when African slaves were imported to the New World (25). Sewing narrow strips together to make a larger piece and the use of bright colors in quilting exhibits a continuity between Africa and Black America.

## **UNIT LITERATURE**

There will be four main readings which will be used to make the connection between literature and mathematics. The readings are *The Keeping Quilt*, *Mandie and the Quilt Mystery*, “Everyday Use,” and “My Mother Pieced Quilts.” Each piece will be related to self-identity and the heritages of various ethnic groups. A quilt plays an important role in each of the literatures read. These pieces of literature will introduce the unit on geometry through the study of quilting. These texts will represent some of the ethnic groups in my classroom: Russian Jewish-American, Native American, Mexican-American, and African-American. The other cultures will be included by having a variety of quilting books with pictures of quilts representing those cultures. *Mandie and the Quilt Mystery* is the only novel being read and will be read in its entirety in the Language Arts class. The other pieces are short and can be done in the math class. This unit will be incorporated when the units on Geometric Relationships and Measurement are taught during the second semester.

### ***Mandie and the Quilt Mystery***

Students will read *Mandie and the Quilt Mystery* as a core novel in Language Arts. This book is part of a historical fiction series in which Mandie is portrayed as an adventurer and solver of mysteries. She and her friends discover an old Cherokee quilt which contains a secret message. She is determined to find out what message is contained in the quilt. I chose this book because of the relationship between Native Americans and White Americans. The secret contained in the quilt is a dangerous one since it expresses how Native Americans felt about how they were treated by the white settlers. The story also shows how hatred can be overcome through the kindness of one group of people (Whites) toward another (Indians) by protecting them from being slaughtered. The secret almost destroys Mandie’s love for her Indian relatives and causes confusion within her because of her Indian heritage. The story ends on a positive note, but how many children are faced with the situation of being a biological product of ethnic groups who hate one another? How does this affect their self-identity?

### ***The Keeping Quilt***

*The Keeping Quilt* by Patricia Polacco is an autobiographical story about a Russian Jewish family’s quilt and how their heritage was passed down from generation to generation. The quilt is begun by taking pieces of Great-Gramma Anna’s old dress that she had outgrown, Uncle Vladimir’s, shirt, Aunt Havalah’s night dress, and Aunt Natasha’s old apron. Anna’s mother made the quilt “to help us always remember home. It will be like having the family back home in Russia dance around us at night” (Polacco). This quilt was passed down from mother to daughter for four generations (Hurst). It showed the continuity within the family. As each generation came to be, the family traditions began to take on more of the American ways, such as the weddings: non-Jews were present at the author’s mother’s wedding, and at the author’s wedding, men and women danced together. The heritage was maintained by giving gold as a sign for wealth, salt for their lives to have flavor, and bread to keep away hunger. These two books will be paired together to illustrate how quilts were made with symbols which told a story of two families’ different heritages, one which showed pain, as in *Mandie’s and the Quilt Mystery*, and one which showed love, as in *The Keeping Quilt*.

### **“Everyday Use”**

I chose Alice Walker’s “Everyday Use” for its African-American background and the themes of heritage and self-identity. This story is about a mother and her two daughters who live in the rural south. Dee\Wangero, the oldest daughter, who is attractive, extremely self-confident and “successful,” has an identity problem. She detests being a rural black, and because of her actions (she is suspected of being responsible for the house fire which caused injury to her sister), she was sent away to school. Maggie, the younger daughter, who is homely, disfigured, and has low self-esteem, has a better understanding about her identity and heritage. The intent of



Dee\Wangero's visit to her mother's house is to take several "heritage" pieces: the churn top and the dasher from the butter churn which was being used, and the "quilt" made by their grandmother. Never mind that Dee\Wangero did not want the quilt when she went away to college; now it is "priceless" to her (Walker). It only became "priceless" because she has discovered her African heritage during the Black Power movement – or has she? In "Everyday Use," Alice Walker argues that an African-American is both African and American, and to deny the American side of one's heritage is disrespectful to one's ancestors and, consequently, harmful to one's self (White). Even though Maggie is portrayed as someone who is lacking confidence, she knows her heritage. She is able to recount the family history attached to the family heirlooms – the butter churn and the quilt. The quilt has been promised to Maggie for when she gets married to John Thomas. Their mother is caught in the middle in the conflict between her two daughters – the older one who is superficial and self-centered and the younger one who is practical and content with her rural life. The conflict comes to an end when Mama gives the quilt to Maggie.

### **"My Mother Pieced Quilts"**

Teresa Palma Acosta's "My Mother Pieced Quilts" is about Mexican-American identity, which is illustrated by a mother-daughter relationship. In this poem, the author reflects on how her mother passes on the family heritage by piecing together fabric from communion cotton, flannel nightgowns, wedding organdies, and dime store velvets. Acosta vividly describes how her mother puts the geometric shapes of squares, oblong and 'round' together, carefully planning which colors to put with one another. "It is through the quilt that several complex relationships unfold, [including] the central bond between the narrator and her audience, that is, the daughter and the mother" (Dvorak). The quilt tell stories about her mother's struggles, strength, and pain, and her love – "knotted with love / The quilts sing on." In "Everyday Use" and "My Mother Pieced Quilts," the activity of quilting details how women were the historians and story tellers of the family. You can hear their voices through their choices of fabrics, the colors and textures, the cutting of geometric shapes, the placement of the designs, the repetition of patterns, and the careful placement of the needlework. Quilting allows women to express their feelings and creativity in each of these works.

I will end the unit with the reading of Nikki Giovanni's "My America (For Hugh Downs)." The question in the title of this seminar, "What Does it Mean to be an American? Multi-Ethnic Literatures of the United States," is answered in this poem. The line "to exemplify differences that: / can share prosperity...can tolerate choices...can respect / individuals...can teach us all...to love" is what I want for my students to learn and understand from their experience of reading the different selections and making quilts. No matter where their families have come from, we can respect each others' differences and celebrate our commonalities.

### **Introduction of Unit**

Students will be asked the question, "What does it mean to be an American?" They will answer the question by writing their responses individually in their notebooks. Then there will be a class discussion about their thoughts which will be recorded on chart paper to be displayed in the classroom. A survey will be conducted to determine how many students and parents are American-born and what is their ethnic heritage. The students will graph the results from all of the 6<sup>th</sup> grade classes. They will use statistical analysis to summarize the results (mean, median, mode, and range). Students can share information about their heritage and/or bring to class a special heirloom which is treasured in their family. Do any of their families have any family quilts, and, if so, do the quilts have a story to tell? These questions will lead the students to the first lesson associated with quilts.

In Lesson I, students are introduced to the theme of family and heritage through the use of story quilts in literature. In Lesson II, they are introduced to the theme of family and heritage through the use of patchwork quilts in literature. In Lesson III, students will investigate properties of geometric shapes through examining patchwork quilts. In Lesson IV, they will make quilts utilizing the properties of geometric shapes to tell a story.

## **LESSON PLANS**

### **Lesson Plan 1**

#### ***Objectives***

Students will identify the purpose for which text is written (ELA.R.6.2.b.) and draw inferences from text (ELA.R.6.5.f.).

Students record information for reflection and understanding (ELA.W.6.2.c.),

Students will identify culture traits of customs and celebrations (SS.6.15.b.).

#### ***Materials***

Student copies of *Mandie and the Mystery Quilt* and *The Keeping Quilt*, chart paper, markers, individual student notebook, quilts.

#### ***Introduction***

A few quilts will be displayed during the teaching of the unit. The students have already read the book *Mandie and the Mystery Quilt* in their Language Arts class. The sections covering the discovery of the mystery quilt's secret (p. 137 – 147) and learning to make a quilt (p. 97 – 101) will be reread for this lesson. *The Keeping Quilt* will be read aloud to the class.

#### ***Concept Development***

Students will use the strategy of paired texts to read a selection from *Mandie and the Quilt Mystery* and the book *The Keeping Quilt*. Students will compare and contrast how the quilts are used in the two books – *The Keeping Quilt* and *Mandie and the Mystery Quilt*. They will describe the heritages illustrated in the two books.

Questions to be asked to set the focus for the readings:

1. How are the quilts made? What did the designs represent? List the similarities and the differences?
2. What cause the similarities and the differences?
3. What were your feelings when you found out the secret of *Mandie's Quilt Mystery*?
4. What did you think about Mandie's reaction?
5. How does the author in *The Keeping Quilt* and Mandie feel about their families and heritage?

#### ***Student Practice***

Students will work in groups to answer the questions. The students will be asked to justify their answers using specific details from the texts. They will also use a Venn diagram to compare and contrast the themes of family, heritage, and use of quilt.

#### ***Assessment***

Observe how the students are answering the questions through their group discussion. Are they justifying their answers with facts from the text? Are the students listing the similarities and differences correctly in the Venn diagram?

#### ***Closure***

The Venn diagrams will be posted around the class and each group will do a Gallery Walk to reflect upon the answers given in each Venn diagram. Are all the Venn diagrams exactly the same or different and, if different, why? Students will write a short paragraph about their family customs and celebrations.

## **Lesson Plan II**

### ***Objectives***

Students will be involved in small group and class discussions where they will offer observations, make connections, react, speculate, interpret, and raise questions in response to texts (ELA.6.11A).

They will also identify the aspects of culture that can be divisive or unifying (SS6.17.a).

### ***Materials***

Literature Circles Role (HISD)

Literature Circles Presentation (HISD)

### ***Introduction***

For “Everyday Use” and “My Mother Pieced Quilts,” students will discuss the text using the Literature Circles’ strategy learned in Language Arts class during the unit on Short Stories (Unit 3). The Literature circles encourage students to have lively discussions and to have mutual respect for the opinions of others.

### ***Concept Development***

Students will recognize the cultural roots of the two ethnic groups they will be reading about. In “Everyday Use” they will observe how the conflict between the mother and her two daughters revolves around the understanding of their African-American identity and how the quilt expresses their heritage. In “My Mother Pieced Quilts,” a Mexican-American heritage, students will see a different type of mother-daughter relationship where the daughter sees the love that the mother puts into her quilt. Both stories examine how the heritage is shared with each generation through the quilts.

### ***Student Practice***

Students will read both stories individually and then as an in-class oral reading. They will get into their Literature circles to discuss and summarize, select a passage to represent visually, make connections between the story and their own experiences; and identify words and phrases which intrigue them, make inferences, and raise questions for further discussion (HISD).

### ***Assessment***

Describe the roles of the narrators of the two stories. How are the heritages of two ethnic groups shown in the stories? What role does the quilt play?

### ***Closure***

Student groups will present a summary of their discussions to the whole class.

## **Lesson Plan III – Geometric Concepts of Patchwork Quilt**

### ***Objectives***

Students will discover the attributes of the special triangles and quadrilaterals by examining their angles and sides (6.6.B).

### ***Materials***

Geometric patterns of regular polygons  
Paper  
Rulers  
Scissors  
Glue  
Colored pencils

### ***Introduction***

Students will look at different types of Patchwork Quilts – These are the type of quilts illustrated in “Everyday Use” and described in “My Mother Pieced Quilts.” Students will analyze geometric shapes: triangles, squares, and rectangles. They will discover why shapes fit together without any space. This is called tessellation. Students will also investigate transformation. This lesson is part of a two-week geometry unit. I plan to do this lesson after students have investigated the properties of special triangles and quadrilaterals. Students will explore tessellating with pattern blocks, tiles, round chips, and tangrams to discover what shapes will cover a sheet of paper with no gaps or overlaps.

### ***Concept Development***

Students will explore the different types of polygons to determine which polygons tessellate. Do all regular polygons tessellate? Do any of the non-regular polygons tessellate?

Vocabulary: side, angle, polygon, acute angle, right angle, obtuse angle, scalene, isosceles, equilateral, and acute triangles, opposite angles, consecutive angles, diagonal, quadrilateral, square, rectangle, rhombus, parallelogram.

### ***Student Practice***

Students will make cut-out templates of regular polygons: triangle, square, pentagon, and hexagon. They will use these templates to draw tiling patterns of each shape across a sheet of paper. After students have made a tiling pattern of the regular polygons, they will answer the following questions:

What makes a polygon a regular polygon?

Which of these regular polygons tessellate, and what causes these polygons to tessellate?

Do all of the regular polygons tessellate? If not, name the regular polygons which do not tessellate and explain why not.

Are regular polygons the only shapes which tessellate? If not, what other polygons tessellate and why?

### ***Assessment***

Students will write a paragraph about which polygons tessellated and those that did not. In their explanation, they will use the geometric vocabulary illustrated by the properties of regular polygons.

### ***Closure***

Students will look for examples of tessellating patterns in pictures and identify and describe the attributes of the shapes making the tessellation.

## **Lesson Plan IV - Using Geometry to make Story Quilts**

### ***Objectives***

Identify and apply mathematics to everyday experiences, to activities in and outside school, with other disciplines, and with other mathematical topics (6.11.A). Select tools such as real objects, manipulatives, paper/pencil, and technology or techniques, such as mental math, estimation, and

number sense to solve problems (6.11.D). Students will describe traits that define cultures such as language, customs, and celebrations (SS.6.15.b.).

### ***Materials***

Muslin  
Construction paper  
Fabric / color markers  
Scissors  
Glue  
Sewing machine  
Fusible material

### ***Introduction***

Quilters are story tellers. Students have been exposed to this idea from the texts they have read concerning quilting. Students will create a quilt about the different heritages, ethnic identities, or traditions which exist in their class. This quilt will tell a story about their class. They will apply their knowledge of geometry by using geometric shapes to the border of the class quilt. This lesson will end the interdisciplinary unit on quilting.

### ***Concept Development***

A class story quilt will be made combining appliqué quilting with patchwork quilting. The appliqué method will be used for the different motifs representing each student's culture; patchwork quilting will be used around the border of the class quilt. Students will be replicating a quilting bee when they work on the class quilt together. They will work together in selecting the type of materials, colors, and shapes to be used in designing the class quilt. This quilt will represent the different cultures of the students. Culture includes food, language, customs, celebrations, dress, and the arts. They will decide which cultural aspect will be represented as the central theme of the quilt.

### ***Student Practice***

Each student will be given a square using the type of material agreed upon. They will design their square with the motif illustrating their culture. Each square will have a border around it.

Each square will be attached to each other either by sewing, gluing or using any other method of attaching depending on the type of material. The class will design the border using geometric shapes and patterns and attach it to the class quilt. The border can be divided into sections with each small group of students working on their section.

Each student will write an essay about the meaning of his/her square and how it represents their culture. Include in the essay any similarities and or differences among the various squares. Discuss the geometric properties and patterns seen in the border surrounding the class quilt. These essays will be put in a class book.

### ***Assessment***

Students will be observed on how well they were able to work cooperatively on this class project and what methods were used to come to common agreement concerning the theme of the quilt and type of materials used.

### ***Closure***

Since all the 6<sup>th</sup> graders will be involved in this project, there will be several quilts made. The quilts will be put on display with the class books for other classes to view and listen to the students tell the story shown by their quilt.

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