

STORY QUILT



This guide links the *Story Quilt* unit to the Texas Essential Knowledge and Skills (TEKS) for fifth graders. *Story Quilt* is an English language arts unit that allows students to gain an understanding of the relationship between history, quilting, and storytelling. *Story Quilt* also has interdisciplinary connections to the mathematics and social studies disciplines. For example, students generate geometric definitions using critical attributes, as addressed in the Mathematics TEKS, and students study the relationship between the arts and the times during which they were created, as addressed in the Social Studies TEKS. The following document includes the applicable TEKS and the details of the *Story Quilt* unit. The asterisks indicate the TEKS that are testable on the State of Texas Assessments of Academic Readiness (STAAR). The final section of this document presents the applicable Texas College and Career Readiness Standards adopted by the Texas Higher Education Coordinating Board (THECB) on January 24, 2008.

Description of Unit

This project generates an understanding of the relationship between history, quilting, and storytelling. Students will explore the stories told by quilts, how narratives can be represented through the art form of the quilt, and the relationship between story and history. In designing their own quilt, students will apply geometric principles.

Goals

Students will meet these goals in their explorations:

- Develop the essential skills of logical thinking, creative problem solving, intellectual risk taking, and communicating
- Create an innovative product based on their findings
- Ask questions and explore theories
- Interpret stories told in graphic format
- Have opportunities to generate new ideas

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- Relate stories to historical periods
- Create and tell stories that are interpretations of historical events
- Depict original stories in a quilt (paper, fabric, or computer-generated)
- Understand how quilting is a means of recording history

Phase I. Learning Experiences

1. Choose one of these books to introduce the concept of quilting to your students: *Tar Beach* by Faith Ringgold, *Sweet Clara and the Freedom Quilt* by Deborah Hopkinson, *The Keeping Quilt* by Patricia Polacco. Explain how the quilter's work tells a story. Discuss these questions:
 - How does the quilter use color, texture, form, line, space, and value to tell the story?
 - What role do the principles of emphasis, pattern, rhythm, balance, proportion, and unity serve in the quilt?
2. Review the history of quilting. Helpful websites include:
 - <http://www.depts.ttu.edu/museumttu/III/Lubbock%20Lake/Quilting%20in%20America.pdf>
 - <http://www.womenfolk.com/historyofquilts/>
 - <http://www.reddawn.net/quilt/timeline.htm>
 - <http://www.quiltersbee.com/qbqhisto.htm>
 - <http://www.historyofquilts.com/>

Which groups of people have tended to communicate and record historical information through quilts? Why? What was the motivation behind this activity?

Is there bias in the way the history of quilting is told? Are there errors of omission—whose stories are not told in history books?

3. Organize the students into small groups. Each group should take one historical or ethnic group to research. Students should identify three examples of quilts from the time period or ethnic group studied. The groups should consider these questions:
 - How were quilts made? What materials were used? Were the materials significant to the people in some way?
 - What purposes did the quilts serve?
 - What were the stories told through the quilts?
 - How has quilting become universally regarded as a legitimate art form?
 - How were political symbols used in the quilts?
 - How do the quilts reflect the belief system during the time period or of the ethnic group?
4. Discuss the mathematics involved in quilting. Cut out triangles and other shapes to form quilting patterns. Students can use these patterns to create tessellations, rotations, and reflections. Helpful websites include:
 - <http://www.emporia.edu/cgps/tales/quilte~1.htm>
 - <http://finitegeometry.org/sc/16/quiltgeometry.html>

Refer to the attached worksheet for looking at quilts.

5. Create a class quilt. Each student designs a quilt square that represents one event or aspect of a story. Students should take notes and make decisions about who will design each square. Squares can represent plot, characters, and/or setting. Use quilt-making software, if available, or use graph paper to lay out the design. The design of the quilt should be historically accurate from the time period of the story. Record the history or process of the quilt and keep it with the quilt. OR Each group selects a story and designs a quilt for the story. Then compare and contrast the various quilts. Stories should come from books they have read or websites they have visited as part of this unit.

Phase II. Independent Research

A. Research process

1. Selecting a topic. Each student should identify a story they would like their quilt to tell.
2. Asking guiding questions. Once the student has selected a story, he/she should form guiding questions to explore, such as:
 - Who is telling the story? Why?
 - What resources will help develop the story?
 - What material will the quilt be made of? Will the choice of material help to tell the story?
 - What other supplies will be needed?While these examples are general, the student's questions should be specific to the chosen topic. The questions should lead him/her to form individual research-based opinions. The student should also develop a hypothesis or some possible answers to the questions.
3. Developing and submitting a research proposal. The student should include numerous components in the research proposal:
 - The story the quilt will tell
 - The guiding questions he/she will investigate, as well as hypothetical answers to those questions
 - Resources he/she will need to find answers to questions, such as primary and secondary sources, correspondence with experts on the subject, etc.
4. Conducting the research. After you have approved student proposals, each student begins using the resources he/she has identified and others he/she may encounter. During this stage, the student will need to keep a log, note cards, or resource process sheets of all the sources and what he/she has learned from each one.
5. Developing conclusions. The student should consider the following questions:
 - What was successful about the adaptation of the story to the quilt you will make?
 - What adjustments or changes did you have to make? Why?
 - Who is the target audience for your quilt?
 - What will be unique about your story and quilt?

B. The product

Create a quilt that tells an original story. Write the original story. Design a quilt that goes with it. Use quilt-making software, if available, or use graph paper to lay out the design. The design of the quilt should be historically accurate from the time period of the story. Record the history or process of the quilt and keep it with the quilt. Quilts can be made of paper.

C. Communication

Each student will present their quilt to the class, along with the story, which is described in the quilt. The talk should include unscripted questions from the audience.

D. A completed project consists of:

- a. A research proposal, including guiding questions and answers
- b. A research log, notes, or resource process sheets
- c. The product-the quilt and its accompanying story
- d. A Works Cited Page
- e. A videotape or audiotape of the student's talk, including the unscripted Q&A session

Texas Essential Knowledge and Skills

The unit may address the following TEKS:

English Language Arts and Reading:

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| 5.1 | Reads grade-level text with fluency and comprehension |
| 5.2 | Understands new vocabulary and uses it when reading and writing* (Testable on the Grade 5 Reading STAAR, Reporting Category 1) |
| 5.3 | Analyzes, makes inferences, and draws conclusions about theme and genre in different cultural, historical, and contemporary contexts and provides evidence from the text to support their understanding* (Testable on the Grade 5 Reading STAAR, Reporting Category 1, Reporting Category 2) |
| 5.10 | Analyzes, makes inferences, and draws conclusions about the author's purpose in cultural, historical, and contemporary contexts and provides evidence from the text to support their understanding* (Testable on the Grade 5 Reading STAAR, Reporting Category 3) |
| 5.11 | Analyzes, makes inferences, and draws conclusions about expository text and provides evidence from text to support their understanding* (Testable on the Grade 5 Reading STAAR, Reporting Category 3) |
| 5.14 | Uses comprehension skills to analyze how words, images, graphics, and sounds work together in various forms to impact meaning* (Testable on the Grade 5 Reading STAAR, Reporting Category 2, Reporting Category 3) |
| 5.15 | Uses elements of the writing process (planning, drafting, revising, editing, and publishing) to compose text |
| 5.18 | Writes expository and procedural or work-related texts to communicate ideas and |

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- information to specific audiences for specific purposes
- 5.20 Understands the function of and uses the conventions of academic language when speaking and writing
- 5.23 Asks open-ended research questions and develops a plan for answering them
- 5.24 Determines, locates, and explores the full range of relevant sources addressing a research question and systematically record the information they gather
- 5.27 Uses comprehension skills to listen attentively to others in formal and informal settings
- 5.28 Speaks clearly and to the point, using the conventions of language

Mathematics:

- 5.1 Uses mathematical processes to acquire and demonstrate mathematical understanding
- 5.5 Applies mathematical process standards to classify two- dimensional figures by attributes and properties
- 5.7 Applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving measurement
- 5.9 Applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data

Science:

- 5.3 Uses critical thinking and scientific problem solving to make informed decisions* (Testable on the Grade 5 Science STAAR)
- 5.4 Knows how to use a variety of tools and methods to conduct science inquiry* (Testable on the Grade 5 Science STAAR)
- 5.5 Knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used* (Testable on the Grade 5 Science STAAR, Reporting Category 1)
- 5.9 Knows that there are relationships, systems, and cycles within environments* (Testable on the Grade 5 Science STAAR, Reporting Category 4)

Social Studies:

- 5.7 Understands the concept of regions in the United States
- 5.8 Understands the location and patterns of settlement and the geographic factors that influence where people live
- 5.10 Understands the basic economic patterns of early societies in the United States
- 5.12 Understands the impact of supply and demand on consumers and producers in a free enterprise system
- 5.13 Understands patterns of work and economic activities in the United States
- 5.17 Understands important symbols, customs, celebrations, and landmarks that represent American beliefs and principles and contribute to our national identity
- 5.21 Understands the relationship between the arts and the times during which they were created
- 5.22 Understands the contributions of people of various racial, ethnic, and religious groups to the

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- United States
- 5.23 Understands the impact of science and technology on society in the United States
 - 5.24 Applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology
 - 5.25 Communicates in written, oral, and visual forms
 - 5.26 Uses problem-solving and decision-making skills, working independently and with others, in a variety of settings

Fine Arts:

Art

- 5.1 Develops and organizes ideas from the environment
- 5.2 Expresses ideas through original artworks, using a variety of media with appropriate skill
- 5.3 Demonstrates an understanding of art history and culture as records of human achievement
- 5.4 Makes informed judgments about personal artworks and the artworks of others

Theatre

- 5.1 Develops concepts about self, human relationships, and the environment, using elements of drama and conventions of theatre
- 5.2 Interprets characters, using the voice and body expressively, and creates dramatizations
- 5.3 Applies design, directing, and theatre production concepts and skills
- 5.4 Relates theatre to history, society, and culture
- 5.5 Responds to and evaluates theatre and theatrical performances

Texas College and Career Readiness Standards

This unit may address the following Texas College and Career Readiness Standards:

English Language Arts:

- I.A.1 Determines effective approaches, forms, and rhetorical techniques that demonstrate understanding of the writer's purpose and audience
- I.A.2 Generates ideas and gathers information relevant to the topic and purpose, keeping careful records of outside sources
- I.A.3 Evaluates relevance, quality, sufficiency, and depth of preliminary ideas and information, organizes material generated, and formulates thesis
- II.A.1 Uses effective reading strategies to determine a written work's purpose and intended audience
- II.A.2 Uses text features and graphics to form an overview of informational texts and to determine where to locate information
- II.A.3 Identifies explicit and implicit textual information, including main ideas and author's purpose
- II.A.4 Draws and supports complex inferences from text to summarize, draw conclusions, and

- distinguish facts from simple assertions and opinions
- II.A.5 Analyzes the presentation of information and the strength and quality of evidence used by the author, and judge the coherence and logic of the presentation and the credibility of an argument
- II.A.6 Analyzes imagery in literary texts
- II.A.7 Evaluates the use of both literal and figurative language to inform and shape the percepts of readers
- II.A.8 Compares and analyzes how generic features are used across texts
- II.A.9 Identifies and analyzes the audience, purpose, and message of an informational or persuasive text
- II.A.10 Identifies and analyzes how an author's use of language appeals to the senses, creates imagery, and suggests mood
- II.A.11 Identifies, analyzes, and evaluates similarities and differences in how multiple texts present information, argue a position, or relate a theme
- II.B.1 Identifies new words and concepts acquired through study of their relationships to other words and concepts
- II.B.2 Applies knowledge of roots and affixes to infer the meanings of new words
- II.B.3 Uses reference guides to confirm the meanings of new words or concepts
- II.C.2 Analyzes themes, structures, and elements of myths, traditional narratives, and classical and contemporary literature
- II.C.3 Analyzes works of literature for what they suggest about the historical period and cultural contexts in which they were written
- II.C.4 Analyzes and compares the use of language in literary works from a variety of world cultures
- II.D.1 Describes insights gained about oneself, others, or the world from reading specific texts
- II.D.2 Analyzes the influence of myths, folktales, fables, and classical literature from a variety of world cultures on later literature and film
- III.A.1 Understands how style and content of spoken language varies in different contexts and influences the listener's understanding
- III.A.2 Adjusts presentation (delivery, vocabulary, length) to particular audiences and purposes
- III.B.1 Participates actively and effectively in one-on-one oral communication situations
- III.B.2 Participates actively and effectively in group discussions
- III.B.3 Plans and delivers focused and coherent presentations that convey clear and distinct perspectives and demonstrate solid reasoning
- IV.A.1 Analyzes and evaluates the effectiveness of a public presentation
- IV.A.2 Interprets a speaker's message; identifies the position taken and the evidence in support of that position
- IV.A.3 Uses a variety of strategies to enhance listening comprehension
- IV.B.1 Listens critically and responds appropriately to presentations
- IV.B.2 Listens actively and effectively in one-on-one communication situations
- IV.B.3 Listens actively and effectively in group discussions

- V.A.2 Explores a research topic
- V.A.3 Refines research topic and devises a timeline for completing work
- V.B.1 Gathers relevant sources
- V.B.2 Evaluates the validity and reliability of sources
- V.B.3 Synthesizes and organize information effectively
- V.B.4 Uses source material ethically
- V.C.1 Designs and presents an effective product

Mathematics:

- III.B.1 Identifies and applies transformations to figures.
- III.B.3 Uses congruence transformations and dilations to investigate congruence, similarity, and symmetries of plane figures
- III.C.3 Makes connections between geometry and measurement
- VI.B.1 Determines types of data
- VI.B.2 Selects and applies appropriate visual representations of data
- VI.B.4 Describes patterns and departure from patterns in a set of data
- VIII.A.1 Analyzes given information
- VIII.B.1 Develops and evaluates convincing arguments
- VIII.B.2 Uses various types of reasoning
- X.A.2 Connects mathematics to the study of other disciplines

Science:

- I.A.1 Utilizes skepticism, logic, and professional ethics in science
- I.C.1 Collaborates on joint projects
- III.C.1 Prepares and represents scientific/technical information in appropriate formats for various audiences
- III.D.1 Uses search engines, databases, and other digital electronic tools effectively to locate information
- III.D.2 Evaluates quality, accuracy, completeness, reliability, and currency of information from any source
- V.C.1 Recognizes patterns of change.
- V.E.1 Uses models to make predictions.

Social Studies:

- I.A.2 Analyzes the interaction between human communities and the environment
- I.A.3 Analyzes how physical and cultural processes have shaped human communities over time
- I.E.2 Defines the concept of socialization and analyzes the role socialization plays in human development and behavior
- I.E.3 Analyzes how social institutions function and meet the needs of society
- I.F.1 Uses a variety of research and analytical tools to explore questions or issues thoroughly and fairly

- I.F.2 Analyzes ethical issues in historical, cultural, and social contexts
- II.B.3 Analyzes diverse religious concepts, structures, and institutions around the world
- II.B.4 Evaluates how major philosophical and intellectual concepts influence human behavior or identity
- II.B.6 Analyzes how individual and group identities are established and change over time
- III.B.1 Applies social science methodologies to compare societies and cultures
- IV.A.1 Identifies and analyzes the main idea(s) and point(s) of view in sources
- IV.A.2 Situates an informational source in its appropriate contexts
- IV.A.3 Evaluates sources from multiple perspectives
- IV.A.4 Understands the differences between a primary and secondary source and use each appropriately to conduct research and construct arguments
- IV.A.5 Reads narrative texts critically
- IV.A.6 Reads research data critically
- IV.B.1 Uses established research methodologies
- IV.B.3 Gathers, organizes, and displays the results of data and research
- IV.B.4 Identifies and collects sources
- IV.C.1 Understands/interprets presentations critically
- IV.D.1 Constructs a thesis that is supported by evidence
- IV.D.2 Recognizes and evaluates counter-arguments
- V.A.1 Uses appropriate oral communication techniques, depending on the context or nature of the interaction
- V.A.2 Uses conventions of standard written English
- V.B.1 Attributes ideas and information to source materials and authors

Cross-Disciplinary Standards:

- I.A.1 Engages in scholarly inquiry and dialogue
- I.A.2 Accepts constructive criticism and revise personal views when valid evidence warrants
- I.B.1 Considers arguments and conclusions of self and others
- I.B.2 Constructs well-reasoned arguments to explain phenomena, validate conjectures, or support positions
- I.B.3 Gathers evidence to support arguments, findings, or lines of reasoning
- I.B.4 Supports or modifies claims based on the results of an inquiry
- I.D.1 Self-monitors learning needs and seeks assistance when needed
- I.D.2 Uses study habits necessary to manage academic pursuits and requirements
- I.D.3 Strives for accuracy and precision
- I.D.4 Perseveres to complete and master tasks
- I.E.1 Works independently
- I.E.2 Works collaboratively
- I.F.1 Attributes ideas and information to source materials and people

- I.F.2 Evaluate sources for quality of content, validity, credibility, and relevance
- I.F.3 Includes the ideas of others and the complexities of the debate, issue, or problem
- I.F.4 Understands and adheres to ethical codes of conduct
- II.A.1 Uses effective prereading strategies
- II.A.2 Uses a variety of strategies to understand the meanings of new words
- II.A.3 Identifies the intended purpose and audience of the text
- II.A.4 Identifies the key information and supporting details
- II.A.5 Analyzes textual information critically
- II.A.6 Annotates, summarizes, paraphrases, and outlines texts when appropriate
- II.A.7 Adapts reading strategies according to structure of texts
- II.A.8 Connects reading to historical and current events and personal interest
- II.B.1 Writes clearly and coherently, using standard writing conventions
- II.B.2 Writes in a variety of forms for various audiences and purposes
- II.B.3 Composes and revise drafts
- II.C.1 Understands which topics or questions are to be investigated
- II.C.2 Explores a research topic
- II.C.4 Evaluates the validity and reliability of sources
- II.C.5 Synthesizes and organize information effectively
- II.C.6 Designs and present an effective product
- II.C.7 Integrates source material
- II.C.8 Presents a final product
- II.D.1 Identifies patterns or departures from patterns among data
- II.D.2 Uses statistical and probabilistic skills necessary for planning an investigation and collecting, analyzing, and interpreting data
- II.D.3 Presents analyzed data and communicate findings in a variety of formats
- II.E.1 Uses technology to gather information
- II.E.2 Uses technology to organize, manage, and analyze information
- II.E.3 Uses technology to communicate and display findings in a clear and coherent manner
- II.E.4 Uses technology appropriately

LOOKING AT QUILTS

Bring in a quilt from home, or borrow one from someone you know.
Bring a quilting book showing popular designs from finished quilts.

1. Was the quilt hand- or machine-sewn? How can you tell?

2. What kind of stitching was used?

3. Can you find the name of the pattern used in this quilt?

4. What is the quilt made of? Is this important?

5. Is the pattern symmetrical? How (from top to bottom, side to side, diagonally, or in more than one of these ways)?

Discuss the four different types of symmetry.

6. How many pieces of cloth make up the pattern? What shapes are used?

7. Is the quilt made of larger squares? How many? Discuss the formula for the area of a square.

OBSERVAR LAS COLCHAS

Trae una colcha de casa o pídele una prestada a alguien que conoces. Trae un libro de colchas que muestra diseños populares de colchas ya hechas.

1. ¿Se cosió la colcha a mano o a máquina? ¿Cómo puedes distinguir?

2. ¿Qué tipo de puntadas se utilizó?

3. ¿Puedes encontrar el nombre del patrón que se utilizó en esta colcha?

4. ¿De qué está hecha la colcha? ¿Es esto importante?

5. ¿Es simétrico el patrón? ¿Cómo (de arriba hacia abajo, de lado a lado, diagonalmente o en más de una forma)?

Discute los cuatro tipos de simetría.

6. ¿Cuántas piezas de tela forman el patrón? ¿Qué formas se utilizan?

7. ¿Está hecha la colcha de cuadrados más grandes? ¿Cuántos? Discute la fórmula para el área de un cuadrado?

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