

Geo Jammin' By DeSign Unit Plan Overview

SUGGESTED THINGS TO KNOW OR DO BEFORE BEGINNING THIS UNIT

#1 - *Geo Jammin' By DeSign* is an eight day unit. It is a sequel to the unit *Geo Jammin'*. Lessons are for days one thru seven. On day eight, summative assessments are completed. There is a lesson for every subject every day. For example, there is a lesson for Guided Reading, Read Aloud, Working With Words, Writing, Math, and Social Studies, each of the seven days. Most lessons also include a Literacy Link component, which is take home information for parents, allowing them to share in their child's learning. Lessons segue one into the other providing a natural, logical flow throughout the day. Each day is complete, and will need no further lesson planning on the educator's part. It may be helpful to gather ahead of time materials needed for each day's set of lessons.

#2 - Have a set of mirrors; suggested size $3\frac{1}{2} \times 3\frac{1}{2}$ inches. For further comments and suggestions on how to acquire these, see Teacher Preparation (Step 1) for Day 3, Lesson 14, *Mirror, Mirror on the Wall*.

#3 - Contact the local Quilters Guild. Request one or two members to visit the classroom. Specify date, time, and types of quilt designs you will want displayed. (See Day 4, Lesson 22, *Authentic Design*)

#4 - Have ready samples of natural fabrics that have been dyed using natural resources, such as berries, tea leaves, etc. (Directions for this are at Day 4, Lesson 23, *Colors To Dye For*, in Teacher Preparation section.)

#5 - On Day 5, Lesson 28, *The Mo-tea-if*, students will dye natural fabric swatches with tea bags. Prepare ahead of time by purchasing natural fabrics (100% cotton, linen, or wool) and cutting into individual triangles. In another lesson students try appliqué stitches and the dyed piece will serve as their motif.

#6 - On Day 6, in Lesson 32, *Appliqué-tion*, students try different appliqué stitches. Each student needs a needle and thread, a **square** of fabric (preferably white or some color other than the tea dyed colored), and the piece of **triangular** fabric they dyed with tea. (Lesson 28, *The Mo-tea-if*) Recruit parent helpers, and arrange the time for them to be in the classroom.

#7 - Take particular note of the Extensions and Modifications section for each lesson. Numerous Websites are given where students can use interactive geoboards and tangrams, practice symmetry with quilt coloring pages, work puzzles and play games.

Day 1

Diagnostic Assessment

Sh-h-hApes at Work

Lesson Plans

Lesson 1 - Math in Motion

Math lesson

Swirling, rotating, changing, sliding. . . stimulate interest with shapes in motion to prepare students for entry into the world of geometric design. Analysis and synthesis questions are served as the appetizer before the diagnostic assessment is given.

Lesson 2 - Dancing Duo

Reading Framework Component: Working With Words

Teacher and students are a dynamic duo who searches a geometry Website to identify geometric vocabulary words, record them on a Quilt Word Wall, and dance them out together. Words are displayed to take on characteristics of different design patterns.

Lesson 3 - Moo-vin'

Reading Framework Component: Guided Reading

Put the meaning of newly introduced vocabulary to the tune of 'Hokey Pokey' and children develop an understanding through music and dance. Lyrics are read as a whole group, Guided Reading experience where more geometric vocabulary is discovered within.

Lesson 4 - Transformation Station

Reading Framework Component: Writing

Students predict the outcome of the slide, flip, and turn of a triangle by transforming their thoughts and ideas into informational text. The recorded text is tested for accuracy and, through peer feedback, is written to perfection.

Lesson 5 - Do You Hear What I Hear?

Reading Framework Component: Shared Reading

Following directions given in poetry fashion students apply newly learned geometric vocabulary to successfully create an animal. Reading informational text for key words and specific purpose and comprehension of geometric terms is the focus.

Lesson 6 - Quilt Story

Social Studies lesson

Through literature, discussion, and response to critical thinking questions, students recognize the use of geometric components in quilts and that quilts are an artistic form that reflect the cultural heritage of the people who designs them.

Day 2

Lesson Plans

Lesson 7 - Start at Square One

Math lesson

Using manipulatives, students explore new shape possibilities by combining two and four triangles. A critical thinking approach is used to guide students' predictions and discoveries with design.

Lesson 8 - Could You Please Give Me Directions?

Reading Framework Component: Guided Reading

Guided reading strategies are utilized to teach students how to effectively read informational text. Challenged to cut a tangram, students read how-to directions and demonstrate their understanding of geometric terms to complete the task successfully.

Lesson 9 - Bringing It to a Fine Gloss-ary

Reading Framework Components: Working With Words and Writing

Students demonstrate their understanding of geometric vocabulary and informational text by working independently to create their own glossary of terms. Investigative exploration with tangrams creates an arena for critical thinking and problem solving.

Lesson 10 - Wanna Trade?

Reading Framework Component: Shared Reading

Through critical thinking questions students develop an understanding of the way trade helps meet the basic needs of people, ways people can conserve and replenish their resources, and that quilts are an art form that reflect our cultural heritage.

Lesson 11 - A Stitch in Time

Social Studies Lesson

Through reading personal size booklets, class discussion, and viewing of historical quilts, students are enlightened to the culturally artistic value of quilts, the importance of trade in meeting basic needs, and the conservation of natural resources.

Day 3

Lesson Plans

Lesson 12 - Jammin'

Reading Framework Component: Working With Words

Utilizing learning aides, students are guided through a fast paced review of vocabulary, and language arts, geometric, and social studies concepts. Participation in choral reading, performance, and sharing of ideas are the means of concept clarification.

Lesson 13 - Reflections

Reading Framework Component: Writing

Students write predictions for new word meanings. Through small group and classroom discussions, students forge their way to developing an understanding of the line of symmetry and set themselves for exploration of symmetry.

Lesson 14 - Mirror, Mirror On the Wall

A Math Lesson

Led in exploration by accepting statements and probing questions, students work in small groups with mirrors to discover and identify the characteristics of symmetry, with the intent to write a description of symmetry and to locate the line of symmetry.

Lesson 15 - The Quiltmaker's Gift

Reading Framework Component: Shared Reading

Using observation skills, students develop an eye for symmetry through literature. Class discussion is the arena whereby students hone in on the correct use of content language to enhance understanding and conceptualization of targeted concepts.

Lesson 16 - The ABC of Symmetry

Reading Framework Component: Guided Reading

Steps for an art project are used for Guided Reading. The activity develops a deeper understanding of how to read informational text, symmetry as it pertains to all elements of design, and art as part of history that reflects aspects of daily life.

Lesson 17 - Granny's Attic

Social Studies Lesson

Take a computer trip through Granny's attic to see what old quilts can be found. Examine original quilt designs displayed on large screen monitor. Then use children's literature and class discussion to develop the social studies connection.

INTRODUCE Student Web Lesson: Ask Hannah, by Julie Thompson

Students describe symmetry in two-dimensional shapes as they learn through this interactive web lesson. Use the lesson daily, as needed for learning and review.

Day 4

Lesson Plans

Lesson 18 - Coordinated!

Reading Framework Component: Working With Words

A sequence of drawings demonstrated by the teacher, leads students to make associations with the object being drawn and geometry content learned in prior lessons. Through questioning students unlock Quadrant 1 of a coordinate plane and new vocabulary words.

Lesson 19 - Geo Junction

Math Lesson

Using a geoboard as a coordinate grid and pieces of drinking straws as markers, students locate and mark coordinate points on the geoboard. Located points are transferred to geo dot paper where students identify the point by writing the coordinates.

Lesson 20 - Listening for Patterns

Reading Framework Component: Shared Reading

Knowledge and understanding of patterns is extended through the use of literature as students make enriched connections to patterns in the real-world and transferring ideas.

Lesson 21 - The Important Thing

Reading Framework Component: Writing

Criteria are presented for designing a quilt block design. Students demonstrate their depth of understanding of math content by using their knowledge of the concepts and transferring it into a literary pattern to write a class big book.

Lesson 22 - Authentic Design

Social Studies Lesson

Handmade quilts presented by the local Quilters Guild give students the opportunity to view first-hand a menagerie of quilt types, patterns, and themed designs. Students experience the actual size and complexity of handmade quilts and their design.

Lesson 23 - Colors To Dye For

Reading Framework Component: Guided Reading

Experiencing samples and reading about colors in fabric deepen understandings that works of art reflect cultural heritage, that trade helps families meet their basic needs, and that people can use and conserve their natural resources.

Student Web Lesson: Ask Hannah

Students describe symmetry in two-dimensional shapes as they learn through this interactive web lesson. Use the lesson daily, as needed for learning and review.

Day 5

Lesson Plans

Lesson 24 - Read All About It!

Reading Framework Component: Shared Reading

The most important thing about this lesson is that we wrote the book ourselves. It reviews symmetry, line of symmetry, congruent, slide, flip, turn, shapes within a shape, and patterns. But the important thing is that we wrote the book ourselves.

Lesson 25 - Geo Jungle

Reading Framework Component: Writing

Knowledge of geometry is taken to the woods as students walk the school grounds in search of symmetry in nature. Their finds are brought back to the classroom, preserved by pressing, and then used as the focus of a student generated narrative.

Lesson 26 - Tangram Tantrums

Math Lesson

Virtual manipulatives and tangrams give students a lesson in geometric terms they won't forget. Challenged with odd shaped puzzles, students must effectively see shapes within a shape and correctly direct piece movement using the terms slide, flip, turn.

Lesson 27 - DeSigning Coordinates

Reading Framework Component: Working With Words and Guided Reading

Geo dot paper is used as a grid for coordinate geometry, making a familiar arena for performing a most unusual task. Letters are assigned to each dot. The challenge is to decode each word using given coordinates and then to illustrate each with tangrams.

Lesson 28 - The Mo-tea-if

Social Studies Lesson

Preparing a fabric swatch for appliquéing begins with reading informational text and directions for tea dying cloth. The task comes full circle as students are given a piece of fabric, and use tea leaves to dye it to the shade of their choosing.

Student Web Lesson: Ask Hannah

Students describe symmetry in two-dimensional shapes as they learn through this interactive web lesson. Use the lesson daily, as needed for learning and review.

Day 6

Lesson Plans

Lesson 29 - Geoboard Jabber

Reading Framework Component - Working With Words

Given a vocabulary word by the teacher, students show what they know by jabbering on their geoboard. Students silently present created illustrations or demonstrations for each word by holding up individual geoboards.

Lesson 30 - Manipulative Mania

Math Lesson

Summative Assessment C

Explore and experiment with creating designs with specific components is one individual activity that students engage in. As students transfer designs and use a checklist to check for inclusiveness, each is summatively assessed on selected standards.

Lesson 31 - Ge-Oh Boy, Oh Boy!

Reading Framework Component - Shared Reading

Through literature students see an authentic use for stitching that goes beyond the coverlet and quilting as a feminine pastime. The concepts of quilting come full circle and students learn that it is useful for boys as well as the girls.

Lesson 32 - Appliqué-tion of Learning

Social Studies Lesson

Appreciation for quilts as an art form, trade item, and as a way to conserve resources is developed by students reading and applying how-to text to actually hand appliqué a motif design to background fabric using three different styles of stitches.

Student Web Lesson: Ask Hannah

Students describe symmetry in two-dimensional shapes as they learn through this interactive web lesson. Use the lesson daily, as needed for learning and review.

Day 7

Lesson Plans

Lesson 33 - Unpack My Mind to Make a Design

Math Lesson

Summative Assessment A

Design pumps are primed and creative juices start to flow as students view various quilt pattern designs to identify and label components of each. Students then work independently on creating a quilt block design. (Summative Assessment A)

Lesson 34 - Flying Geese

Reading Framework Component - Writing

The Flying Geese quilt pattern is used as a graphic organizer for classifying learned concepts. Using student-generated ideas, the teacher models use of the design for organizing knowledge and writing recorded ideas into paragraphs for a report.

Lesson 35 - Scatter Brains

Reading Framework Component - Working With Words

The word is out! Challenge students to decode the message by locating the given coordinate points of letters scattered on a coordinate grid. Then, using letter coordinates from the grid, students write a coded message to parents.

Lesson 36 - De' Sign Sampler

Social Studies Lesson

Using pictures of quilts, student groups follow criteria that are presented and utilize the role of each student to write reports. This exercise affords students another opportunity to prepare for the summative assessment given the following day.

Lesson 37 - Summarizing for the Summative

Reading Framework Component - Shared Reading

Purposeful listening and discretionary ears are a must as peers listen to group reports and offer positive and corrective feedback with regards to content criteria. This summarizing activity prepares students for the summative assessment of like design.

Lesson 38 - Kool Cups

Reading Framework Component - Guided Reading

Caution, fun ahead! Students read informational text and use mathematical language for the specific purpose of performing the task of making geometric cups! Students proceed through the lesson to make cups per direction specifications. To test for accuracy, fill with Kool-Aid.

Student Web Lesson: Ask Hannah

Use as needed for review.

Day 8

Summative Assessment A

Students started this on Day 7, Lesson 33, Unpack My Mind to Make a Design.

If they have not already done so, students should complete this assessment and turn it in for scoring.

Summative Assessment B

Quilt Reports

Administer on this day.

Summative Assessment C

This was administered and completed Day 6, Lesson 30, Manipulative Mania.

Summative Assessment D

Up, Down, All Around

Administer on this day. This should be the last summative of the unit. Students first complete the written portion and lastly fold a popper noisemaker.

Daily Teaching Matrix for Reading Framework Components

Week 1				
Day 1	Day 2	Day 3	Day 4 Student Web Lesson: 'Ask Hannah'. (To learn & review)	Day 5 Student Web Lesson: 'Ask Hannah'. (To learn & review)
Math Lesson 1 - Math in Motion Diagnostic Assessment	Math Lesson 7 - Start at Square One	Working With Words Lesson 12 - Jammin'	Working With Words Lesson 18 - Coordinated!	Shared Reading Lesson 24 - Read All About It!
Working With Words Lesson 2 - Dancing Duo	Guided Reading Math Time Lesson 8 - Could You Please Give Me Directions?	Writing Lesson 13 - Reflections	Math Lesson 19 - Geo Junction	Writing Lesson 25 - Geo Jungle
Guided Reading Lesson 3 - Moo - vin'	Working With Words Lesson 9 - Bringing It to a Fine Gloss-ary	Math Lesson 14 - Mirror, Mirror on the Wall Intro. Student Web Lesson: 'Ask Hannah'. Use daily as needed for learning & review.	Shared Reading Lesson 20 - Listening for Patterns	Math Lesson 26 - Tangram Tantrums
Writing Lesson 4 - Transformation Station	Writing Lesson 9 - Bringing It to a Fine Gloss- ary	Shared Reading Lesson 15 - The Quiltmakers Gift	Writing Lesson 21 - The Important Thing	Guided Reading Lesson 27 - DeSigning Coordinates
Shared Reading Lesson 5 - Do You Hear What I Hear	Shared Reading Lesson 10 - Wanna Trade?	Guided Reading Lesson 16 - The ABC of Symmetry	Social Studies Lesson 22 - Authentic Design	Working With Words Lesson 27 - DeSigning Coordinates
Social Studies Lesson 6 - Quilt Story	Social Studies Lesson 11 - A Stitch in Time	Social Studies Lesson 17 - Granny's Attic	Guided Reading Lesson 23 - Colors To Dye For	Social Studies Lesson 28 - The Mo-Tea-if
Self - Selected Reading	Self - Selected Reading	Self - Selected Reading	Self - Selected Reading	Self - Selected Reading
Literacy Link Lessons 2,3, and 5	Literacy Link Lesson 8	Literacy Link Lessons 14, 16	Literacy Link Lesson 18	Literacy Link Lesson 27

Daily Teaching Matrix for Reading Framework Components

Week 2				
Day 6	Day 7	Day 8	Day 9	Day 10
Student Web Lesson: 'Ask Hannah'. (To learn & review)	Student Web Lesson: 'Ask Hannah'. (To learn & review)			
Working With Words Lesson 29 - Geo Jabber	Math Lesson 33 - Unpack My Mind to Make a Design Summative Assessment A	Summative Assessment A Students began this assessment yesterday. If these were not finished allow time for students to complete and turn them in.		
Math Lesson 30 - Manipulative Mania Summative Assessment C	Writing Lesson 34 - Flying Geese	Summative Assessment B Student reports can be submitted as a SiteMaker report, handwritten on My Quilt Report, or as an oral presentation.		
Shared Reading Lesson 31 - Ge-Oh Boy, Oh Boy!	Working With Words Lesson 35 - Scatter Brain	Summative Assessment D This should be the final assessment. Students first complete the written portion and finalize with folding a popper noisemaker.		
Social Studies Lesson 32 Appliqué-tion	Social Studies Lesson 36 - De' Sign Sampler			
Guided Reading Due to reading being integrated within the lessons above, there is no formal Guided Reading lesson.	Shared Reading Lesson 37 - Summarizing for the Summative			
Writing Due to the intricacy of today's lesson there is no formal Writing lesson.	Guided Reading Lesson 38 - Kool Cups			
Self-Selected Reading	Self-Selected Reading			
Literacy Link Lesson 30	Literacy Link Lesson 33, 34, 35			