Instructional Focus Document - Grade 2 Mathematics

Basic Information: TEKS RS Unit 04: Two- and Three-Dimensional Figures

Duration	Grade	Subject	Unit
10 days	Grade 2	Mathematics	04

Unit Overview

Introduction

This unit bundles student expectations that address creating, sorting, and classifying two- and three-dimensional figures, as well as composing and decomposing geometric figures based on geometric attributes. According to the Texas Education Agency, mathematical process standards including application, a problem-solving model, tools and techniques, communication, representations, relationships, and justifications should be integrated (when applicable) with content knowledge and skills so that students are prepared to use mathematics in everyday life, society, and the workplace.

Prior to this Unit

In Grade 1, students used both formal and informal geometric language to identify two- and three-dimensional figures based on attributes. Students also created, composed, and partitioned two-dimensional figures.

During this Unit

Students analyze attributes of two-dimensional shapes and three-dimensional solids in order to develop generalizations about their properties. Using formal geometric language, students classify and sort polygons with 12 or fewer sides by identifying the number of sides and number of vertices. Students understand that all two-dimensional polygons have a specific name based on the number of sides and vertices in the figure. It is also important that students are exposed to both regular figures where sides are the same length and irregular figures where sides are not the same length. Although students at this grade level are expected to use formal geometric language, the term “right angle” when referring to corners is not an expectation until Grade 4. However, teachers may begin to associate the words “square” and “right” when describing corners of two-dimensional figures. Students use attributes based on formal geometric language to classify and sort three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes as special rectangular prisms), triangular prisms, square pyramids, and triangular pyramids. Students develop spatial visualization skills, meaning the creation and manipulation of mental representations of shapes, as they investigate creating two-dimensional shapes based on given attributes of the figures. Spatial visualization is also reinforced as students compose two-dimensional shapes and three-

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dimensional solids with given properties or attributes. Students also decompose two-dimensional shapes into equal or unequal parts and use geometric attributes to identify and name the resulting parts.

Other considerations: Reference the Mathematics Grade 2 Instructional Considerations to Activate Purposeful Planning (ICAPP) Resource.

After this Unit

In Grade 3, students will continue to use geometric attributes and formal language as they classify and sort two- and three-dimensional figures, including further investigation of two-dimensional shapes classified as quadrilaterals. Students will apply their knowledge of geometric figures as they investigate area of rectangles.

Additional Notes

In Grade 2, creating, sorting, and classifying two- and three-dimensional figures, as well as composing and decomposing geometric figures based on geometric attributes are included within the Grade 2 *Texas Response to Curriculum Focal Points* (TxRCFP): Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts. This unit is supporting the development of the *Texas College and Career Readiness Standards* (TxCCRS): I. Numeric Reasoning B1; II. Algebraic Reasoning D1, D2; III. Geometric Reasoning A1; V. Statistical Reasoning A1, C2; VII. Problem Solving and Reasoning A1, A2, A3, A4, A5, B1, C1, D1, D2; VIII. Communication and Representation A1, A2, A3, B1, B2, C1, C2, C3; IX. Connections A1, A2, B1, B2, B3.

Research

In the primary grades, the instruction of geometry concepts relies heavily on hands-on manipulation of concrete objects. While early experiences with naming shapes is critical to geometry, research by the National Research Council (2001) concludes that rather than limiting geometrical investigations to simply identifying shapes, students who are “encouraged to reflect on and articulate their developing knowledge…subsequently [demonstrate] levels of reasoning well beyond their earlier performance, both in their precision of language and in their use of arguments based on the properties of shapes” (p. 285). Van de Walle (2005) explains that the teaching of geometry involves the gradual attainment of concept levels based on the accurate application of formal geometric vocabulary focused more on properties of figures than on simple identification. He states, “As students begin to be able to think about properties of geometric objects without the constraints of a particular object, they are able to develop relationships between and among these properties” (p. 207). The advent of virtual three-dimensional manipulation using technology has increased the need for a well-developed spatial sense and understanding of geometric attributes and properties in order for students to be prepared for the future.

National Research Council. (2001). *Adding it up: Helping children learn mathematics.* Kilpatrick, J., Swafford, J., and Findell, B. (Eds.) Mathematics Learning Study Committee, Center for Education Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.
Texas Education Agency & Texas Higher Education Coordinating Board. (2009). *Texas college and career readiness standards.* Retrieved from http://www.thecb.state.tx.us/institutional-resources-programs/public-community-technical-state-colleges/texas-college-and-career-readiness-standards/
Texas Education Agency. (2013). *Texas response to curriculum focal points for kindergarten through grade 8 mathematics.* Retrieved from https://www.texasgateway.org/resource/txrcfp-texas-response-curriculum-focal-points-k-8-mathematics-revised-2013
Van de Walle, J., & Lovin, L. (2005). *Teaching student-centered mathematics grades 3 – 5*. Boston, MA: Pearson Education, Inc.

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Overarching Understandings and Questions

OVERARCHING UNDERSTANDINGS AND QUESTIONS

Geometric, spatial, and measurement reasoning are foundational to visualizing, analyzing, and applying relationships within and between scale, shapes, quantities, and spatial relations in everyday life.

- Why is developing geometric, spatial, and measurement reasoning essential?
- How does geometric, spatial, and measurement reasoning affect how one sees and works in the world?

UNIT UNDERSTANDINGS AND QUESTIONS	OVERARCHING CONCEPTS AND UNIT CONCEPTS	PERFORMANCE ASSESSMENT(S)
Illustrating and analyzing geometric relationships in models and diagrams aid in representing and describing the attributes of geometric figures in order to generalize geometric relationships and solve problem situations. • What attributes and properties exist in …	Geometry • Composition and Decomposition of Figures • Geometric Attributes and Properties • Classification • Geometric Representations	Mathematics Grade 2 Unit 04 PA 01 **Click on the PA title to view related rubric.** *Provide the following for each of the following tasks: 1) a variety of commercial and real-world*

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UNIT UNDERSTANDINGS AND QUESTIONS	OVERARCHING CONCEPTS AND UNIT CONCEPTS	PERFORMANCE ASSESSMENT(S)
◦ polygons? ◦ two-dimensional figures? ◦ three-dimensional figures? • How are attributes and properties used to classify geometric figures? • How are attributes of three-dimensional figures represented in a picture or diagram? • What relationships exist between … ◦ two-dimensional figures and three-dimensional figures? ◦ the sides and vertices in a polygon? • How are … ◦ two-dimensional figures and three-dimensional figures ◦ the attributes of circles and polygons ◦ figures with curved surfaces and figures with only flat surfaces … alike and different? • How can a collection of … ◦ two-dimensional ◦ three-dimensional … figures be sorted and classified in more than one way? • What strategies can be used to …	• Two-dimensional figures • Three-dimensional figures <u>Associated Mathematical Processes</u> • Application • Problem Solving Model • Tools and Techniques • Communication • Representations • Relationships • Justification	*polygons; 2) a variety of commercial and real-world three-dimensional figures; 3) a variety of arts and craft supplies; 4) paper, pencil, scissors, glue, and a sheet of poster-sized or manila paper; 5) a collection of uniform-sized triangles, squares, and rectangles; and a set of unit cubes. Assess students using the following tasks:* 1. Sort a collection of polygons into categories based on common geometric attributes and properties. a. In writing, describe the attributes and properties used to determine each category. b. In writing, explain the relationship between the number of sides and the number of vertices in each polygon. 2. Sort a collection of three-dimensional figures into categories based on common geometric attributes and properties. a. In writing, describe the attributes and properties used to determine each category.

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UNIT UNDERSTANDINGS AND QUESTIONS	OVERARCHING CONCEPTS AND UNIT CONCEPTS	PERFORMANCE ASSESSMENT(S)
◦ create two-dimensional shapes ◦ compose two-dimensional shapes ◦ compose three-dimensional shapes … when given specific attributes or properties? • How can a two-dimensional figure be decomposed in more than one way? • How can the resulting parts of a decomposed two-dimensional figure be described?		b. Select one category. In writing, explain the relationship, if any, between the number of faces, edges, and vertices of each figure in the category. 3. Use the given attributes and properties to create the shape described below, record the name of the shape, and label each vertex and side on the shape. a. A two-dimensional shape with 4 sides, where all sides are equal in length and all corners are square corners. b. A two-dimensional shape with 3 vertices, where one corner is a square corner. c. A two-dimensional shape with 4 square corners, where only opposite sides are equal in length. 4. Select one of the shapes created in task #3. a. Use paper, pencil, and scissors to trace and cut out 2 copies of the selected shape. b. Glue one copy of the selected shape on the left side of a poster-sized or manila sheet of paper. c. Use scissors to decompose the other copy

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UNIT UNDERSTANDINGS AND QUESTIONS	OVERARCHING CONCEPTS AND UNIT CONCEPTS	PERFORMANCE ASSESSMENT(S)
		of the selected shape into 2 – 4 parts. Glue each of the resulting parts on the right side of the poster-sized or manila sheet of paper. d. Below each glued part, record the name of each new shape created. 5. Use the given attributes and properties to compose the new figures described below by joining two or more triangles, squares, rectangles, and/or unit cubes. In writing, describe how the combination of individual figures was used to create the new composed figure. a. Compose a two-dimensional figure with 8 sides and 8 vertices. b. Compose a three-dimensional figure with 6 faces, where 2 faces are squares, and 4 faces are rectangles. c. Compose a two-dimensional figure with 3 sides and 3 vertices, where none of the corners are square. Standard(s): **2.1A**, **2.1B**, **2.1C**, **2.1D**, **2.1E**, **2.1F**, **2.1G**, **2.8A**, **2.8B**, **2.8C**, **2.8D**, **2.8E**, **ELPS.c.1A**, **ELPS.c.2A**, **ELPS.c.2D**, **ELPS.c.3D**, **ELPS.c.3I**

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Misconceptions/Underdeveloped Concepts

Underdeveloped Concepts:

- Although some students may be able to identify regular figures, they may not be able to identify irregular figures due to limited exposure to a variety of images and lack of understanding regarding the attributes of a given figure (e.g., a student may be able to identify a regular hexagon from exposure to pattern blocks but fail to recognize any closed six-sided figure as a hexagon).
- Although some students may sort or classify a set of figures by size, orientation, texture, or color, they may have difficulty sorting and classifying figures based on geometric attributes.
- Some students may categorize two-dimensional figures incorrectly based on only a few attributes of the figure rather than considering all of the figure's defining attributes (e.g., a student may say, "If the shape has four sides, it is a square," although this may not be true because a four-sided figure could also be a rectangle or rhombus).
- Students may have difficulty remembering formal geometric terms or distinguishing formal vocabulary from informal vocabulary (e.g., students may confuse the informal edge and the formal side of a two-dimensional figure with the formal edge of a three-dimensional figure).
- Some students may call a three-dimensional figure by the name of one of its two-dimensional faces (e.g., a student may refer to a cube as a square, etc.).

Unit Vocabulary

- **Attributes of three-dimensional figures** – characteristics that define a geometric figure (e.g., faces, curved surfaces, edges, vertices, etc.)
- **Attributes of two-dimensional figures** – characteristics that define a geometric figure (e.g., sides, vertices, etc.)

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- **Classify** – applying an attribute to categorize a sorted group
- **Compose figures** – to combine smaller geometric figures to form a larger geometric figure
- **Decompose figures** – to break a geometric figure into two or more smaller geometric figures
- **Edge** – where the sides of two faces meet on a three-dimensional figure
- **Face of a prism** – a polygon that forms a surface of a prism
- **Irregular figure** – a polygon with sides and/or corners that appear to be different or unequal
- **Polygon** – a closed figure with at least 3 sides, where all sides are straight (no curves)
- **Properties of three-dimensional figures** – relationship of attributes within a geometric figure (e.g., a rectangular prism has 6 faces and each pair of opposite faces are the same size and shape, etc.) and between a group of geometric figures (e.g., a cube and a rectangular prism both have 6 faces with opposite faces equal in size and shape; however, a cube has only square faces but a rectangular prism can have square or rectangular faces; etc.)
- **Properties of two-dimensional figures** – relationship of attributes within a geometric figure (e.g., a square has 4 sides equal in length and 4 square corners, etc.) and between a group of geometric figures (e.g., a square and a rectangle both have 4 sides and 4 square corners; however, a square has 4 sides equal in length but a rectangle has only opposite sides equal in length; etc.)
- **Regular figure** – a polygon with all sides and corners that appear to be the same or equal
- **Side** – a straight outer boundary between two vertices (line segment) of a two-dimensional figure
- **Sort** – grouping objects or figures by a shared characteristic or attribute
- **Three-dimensional figure** – a figure that has measurements including length, width (depth), and height
- **Two-dimensional figure** – a figure with two basic units of measure, usually length and width
- **Vertex (vertices) in a three-dimensional figure** – the point (corner) where three or more edges of a three-dimensional figure meet
- **Vertex (vertices) in a two-dimensional figure** – the point (corner) where two sides of a two-dimensional figure meet

Related Vocabulary:

- 7-gon (heptagon)
- 9-gon (nonagon)
- 11-gon (hendecagon)
- 12-gon (dodecagon)
- Circle
- Cone
- Cube
- Curved surface
- Cylinder
- Decagon
- Flat surface
- Hexagon
- Octagon
- Orientation
- Pentagon
- Pyramid
- Rectangle
- Rectangular Prism
- Rectangular Pyramid
- Rhombus
- Sphere
- Square
- Triangle
- Triangular Prism
- Triangular Pyramid

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Unit Assessment Items

Unit Assessment Items that have been published by your district may be accessed through Search All Components in the District Resources tab. Assessment items may also be found using the Assessment Center if your district has granted access to that tool.

System Resources

Mathematics Concepts Charts

Mathematics Grade 2 Backward Design Document

Mathematics Grade 2 Enhanced TEKS Clarification

Mathematics Grade 2 Focal Points with Aligned Standards and TEKS Introduction

Mathematics Grade 2 Instructional Considerations to Activate Purposeful Planning (ICAPP)

Mathematics Grade 2 Vertical Alignment

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Mathematics K-HS Overarching Understandings and Questions

Mathematics Long Term Transfer Goals

Mathematics Suggested Basic Manipulatives by Grade Level

Mathematics Suggested Engaging Literature

Mathematics Teacher Manipulative Google Slide Decks

Mathematics Texas Education Agency Grade 2 TEKS Supporting Information (with TEKS Resource System Comments)

Mathematics Vertical Quick Guide

Other Resources

Texas Higher Education Coordinating Board – Texas College and Career Readiness Standards

Texas Education Agency – Texas Response to Curriculum Focal Points for K-8 Mathematics Revised 2013

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Texas Education Agency – Mathematics Curriculum

Texas Education Agency – STAAR Mathematics Resources

Texas Education Agency Texas Gateway – Revised Mathematics TEKS: Vertical Alignment Charts

Texas Education Agency Texas Gateway – Mathematics TEKS: Supporting Information

Texas Education Agency Texas Gateway – Interactive Mathematics Glossary

Texas Education Agency Texas Gateway – Resources Aligned to Grade 2 Mathematics TEKS

Taught Directly TEKS

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TAUGHT DIRECTLY TEKS	
TEKS INTENDED TO BE EXPLICITLY TAUGHT IN THIS UNIT.	
TEKS/SE Legend: • Knowledge and Skills Statements (TEKS) identified by TEA are in italicized, bolded, black text. • Student Expectations (TEKS) identified by TEA are in bolded, black text. • Portions of the Student Expectations (TEKS) that are not included in this unit but are taught in previous or future units are indicated by a ~~strike-through~~.	**Specificity Legend**: • Supporting information / clarifications (specificity) written by TEKS Resource System are in blue text. • *Unit-specific clarifications are in italicized, blue text.* • Information from Texas Education Agency (TEA), Texas College and Career Readiness Standards (TxCCRS), Texas Response to Curriculum Focal Points (TxRCFP) is labeled. • A Partial Specificity label indicates that a portion of the specificity not aligned to this unit has been removed.

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2.1	***Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:***	
2.1A	**Apply mathematics to problems arising in everyday life, society, and the workplace.**	Apply MATHEMATICS TO PROBLEMS ARISING IN EVERYDAY LIFE, SOCIETY, AND THE WORKPLACE Including, but not limited to: • Mathematical problem situations within and between disciplines

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		◦ Everyday life ◦ Society ◦ Workplace Note(s): • The mathematical process standards may be applied to all content standards as appropriate. • TxRCFP: ◦ Developing proficiency in the use of place value within the base-10 numeration system ◦ Using place value and properties of operations to solve problems involving addition and subtraction of whole numbers within 1,000 ◦ Measuring length ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts • TxCCRS: ◦ VII.D. Problem Solving and Reasoning – Real-world problem solving • VII.D.1. Interpret results of the mathematical problem in terms of the original real-world situation. ◦ IX.A. Connections – Connections among the strands of mathematics • IX.A.1. Connect and use multiple key concepts of mathematics in situations and problems. • IX.A.2. Connect mathematics to the study of other disciplines. ◦ IX.B. Connections – Connections of mathematics to nature, real-world situations, and everyday life • IX.B.1. Use multiple representations to demonstrate links between mathematical and real-world situations. • IX.B.2. Understand and use appropriate mathematical models in the natural,

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		physical, and social sciences. • IX.B.3. Know and understand the use of mathematics in a variety of careers and professions.

2.1B	**Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.**	Use
		
		A PROBLEM-SOLVING MODEL THAT INCORPORATES ANALYZING GIVEN INFORMATION, FORMULATING A PLAN OR STRATEGY, DETERMINING A SOLUTION, JUSTIFYING THE SOLUTION, AND EVALUATING THE PROBLEM-SOLVING PROCESS AND THE REASONABLENESS OF THE SOLUTION
		
		Including, but not limited to:
		
		• Problem-solving model
		  ◦ Analyze given information
		  ◦ Formulate a plan or strategy
		  ◦ Determine a solution
		  ◦ Justify the solution
		  ◦ Evaluate the problem-solving process and the reasonableness of the solution
		
		Note(s):
		
		• The mathematical process standards may be applied to all content standards as appropriate.
		• TxRCFP:
		  ◦ Developing proficiency in the use of place value within the base-10 numeration system

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		◦ Using place value and properties of operations to solve problems involving addition and subtraction of whole numbers within 1,000 ◦ Measuring length ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts • TxCCRS: ◦ I.B. Numeric Reasoning – Number sense and number concepts • I.B.1. Use estimation to check for errors and reasonableness of solutions. ◦ V.A. Statistical Reasoning – Design a study • V.A.1. Formulate a statistical question, plan an investigation, and collect data. ◦ VII.A. Problem Solving and Reasoning – Mathematical problem solving • VII.A.1. Analyze given information. • VII.A.2. Formulate a plan or strategy. • VII.A.3. Determine a solution. • VII.A.4. Justify the solution. • VII.A.5. Evaluate the problem-solving process. ◦ VII.D. Problem Solving and Reasoning – Real-world problem solving • VII.D.2. Evaluate the problem-solving process.
2.1C	**Select tools, including real objects, manipulatives, paper and pencil, ~~and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate,~~ to solve problems.**	Partial Specificity Select TOOLS, INCLUDING REAL OBJECTS, MANIPULATIVES, PAPER AND PENCIL, AND TECHNOLOGY AS APPROPRIATE, TO SOLVE PROBLEMS Including, but not limited to:

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		• Appropriate selection of tool(s) and techniques to apply in order to solve problems ◦ Tools • Real objects • Manipulatives • Paper and pencil • Technology Note(s): • The mathematical process standards may be applied to all content standards as appropriate. • TxRCFP: ◦ Developing proficiency in the use of place value within the base-10 numeration system ◦ Using place value and properties of operations to solve problems involving addition and subtraction of whole numbers within 1,000 ◦ Measuring length ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts • TxCCRS: ◦ I.B. Numeric Reasoning – Number sense and number concepts • I.B.1. Use estimation to check for errors and reasonableness of solutions. ◦ V.C. Statistical Reasoning – Analyze, interpret, and draw conclusions from data • V.C.2. Analyze relationships between paired data using spreadsheets, graphing calculators, or statistical software.
2.1D	**Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams,**	Communicate

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	graphs, and language as appropriate.	MATHEMATICAL IDEAS, REASONING, AND THEIR IMPLICATIONS USING MULTIPLE REPRESENTATIONS, INCLUDING SYMBOLS, DIAGRAMS, GRAPHS, AND LANGUAGE AS APPROPRIATE
		
		Including, but not limited to:
		
		• Mathematical ideas, reasoning, and their implications
		  ◦ Multiple representations, as appropriate
		  • Symbols
		  • Diagrams
		  • Graphs
		  • Language
		
		Note(s):
		
		• The mathematical process standards may be applied to all content standards as appropriate.
		• TxRCFP:
		  ◦ Developing proficiency in the use of place value within the base-10 numeration system
		  ◦ Using place value and properties of operations to solve problems involving addition and subtraction of whole numbers within 1,000
		  ◦ Measuring length
		  ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts
		• TxCCRS:
		  ◦ II.D. Algebraic Reasoning – Representing relationships
		  • II.D.1. Interpret multiple representations of equations, inequalities, and

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		relationships. • II.D.2. Convert among multiple representations of equations, inequalities, and relationships. ◦ VIII.A. Communication and Representation – Language, terms, and symbols of mathematics • VIII.A.1. Use mathematical symbols, terminology, and notation to represent given and unknown information in a problem. • VIII.A.2. Use mathematical language to represent and communicate the mathematical concepts in a problem. • VIII.A.3. Use mathematical language for reasoning, problem solving, making connections, and generalizing. ◦ VIII.B. Communication and Representation – Interpretation of mathematical work • VIII.B.1. Model and interpret mathematical ideas and concepts using multiple representations. • VIII.B.2. Summarize and interpret mathematical information provided orally, visually, or in written form within the given context. ◦ VIII.C. Communication and Representation – Presentation and representation of mathematical work • VIII.C.1. Communicate mathematical ideas, reasoning, and their implications using symbols, diagrams, models, graphs, and words. • VIII.C.2. Create and use representations to organize, record, and communicate mathematical ideas. • VIII.C.3. Explain, display, or justify mathematical ideas and arguments using precise mathematical language in written or oral communications. ◦ IX.B. Connections – Connections of mathematics to nature, real-world situations, and everyday life • IX.B.1. Use multiple representations to demonstrate links between mathematical and real-world situations.

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2.1E	**Create and use representations to organize, record, and communicate mathematical ideas.**	Create, Use
		
		REPRESENTATIONS TO ORGANIZE, RECORD, AND COMMUNICATE MATHEMATICAL IDEAS
		
		Including, but not limited to:
		
		• Representations of mathematical ideas
		  ◦ Organize
		  ◦ Record
		  ◦ Communicate
		• Evaluation of the effectiveness of representations to ensure clarity of mathematical ideas being communicated
		• Appropriate mathematical vocabulary and phrasing when communicating mathematical ideas
		
		Note(s):
		
		• The mathematical process standards may be applied to all content standards as appropriate.
		• TxRCFP:
		  ◦ Developing proficiency in the use of place value within the base-10 numeration system
		  ◦ Using place value and properties of operations to solve problems involving addition and subtraction of whole numbers within 1,000
		  ◦ Measuring length
		  ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids,

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		including exploration of early fraction concepts • TxCCRS: ◦ VIII.B. Communication and Representation – Interpretation of mathematical work • VIII.B.1. Model and interpret mathematical ideas and concepts using multiple representations. • VIII.B.2. Summarize and interpret mathematical information provided orally, visually, or in written form within the given context. ◦ VIII.C. Communication and Representation – Presentation and representation of mathematical work • VIII.C.1. Communicate mathematical ideas, reasoning, and their implications using symbols, diagrams, models, graphs, and words. • VIII.C.2. Create and use representations to organize, record, and communicate mathematical ideas.
2.1F	**Analyze mathematical relationships to connect and communicate mathematical ideas.**	Analyze MATHEMATICAL RELATIONSHIPS TO CONNECT AND COMMUNICATE MATHEMATICAL IDEAS Including, but not limited to: • Mathematical relationships ◦ Connect and communicate mathematical ideas • Conjectures and generalizations from sets of examples and non-examples, patterns, etc. • Current knowledge to new learning

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		Note(s): • The mathematical process standards may be applied to all content standards as appropriate. • TxRCFP: ◦ Developing proficiency in the use of place value within the base-10 numeration system ◦ Using place value and properties of operations to solve problems involving addition and subtraction of whole numbers within 1,000 ◦ Measuring length ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts • TxCCRS: ◦ VII.A. Problem Solving and Reasoning – Mathematical problem solving • VII.A.1. Analyze given information. ◦ VIII.A. Communication and Representation – Language, terms, and symbols of mathematics • VIII.A.1. Use mathematical symbols, terminology, and notation to represent given and unknown information in a problem. • VIII.A.2. Use mathematical language to represent and communicate the mathematical concepts in a problem. • VIII.A.3. Use mathematical language for reasoning, problem solving, making connections, and generalizing. ◦ VIII.B. Communication and Representation – Interpretation of mathematical work • VIII.B.1. Model and interpret mathematical ideas and concepts using multiple representations. ◦ VIII.C. Communication and Representation – Presentation and representation of mathematical work • VIII.C.1. Communicate mathematical ideas, reasoning, and their implications

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		using symbols, diagrams, models, graphs, and words. • VIII.C.2. Create and use representations to organize, record, and communicate mathematical ideas. • VIII.C.3. Explain, display, or justify mathematical ideas and arguments using precise mathematical language in written or oral communications. ◦ IX.A. Connections – Connections among the strands of mathematics • IX.A.1. Connect and use multiple key concepts of mathematics in situations and problems. • IX.A.2. Connect mathematics to the study of other disciplines.
2.1G	**Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.**	Display, Explain, Justify MATHEMATICAL IDEAS AND ARGUMENTS USING PRECISE MATHEMATICAL LANGUAGE IN WRITTEN OR ORAL COMMUNICATION Including, but not limited to: • Mathematical ideas and arguments ◦ Validation of conclusions • Displays to make work visible to others ◦ Diagrams, visual aids, written work, etc. • Explanations and justifications ◦ Precise mathematical language in written or oral communication Note(s): • The mathematical process standards may be applied to all content standards as

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		appropriate. • TxRCFP: ◦ Developing proficiency in the use of place value within the base-10 numeration system ◦ Using place value and properties of operations to solve problems involving addition and subtraction of whole numbers within 1,000 ◦ Measuring length ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts • TxCCRS: ◦ VII.A. Problem Solving and Reasoning – Mathematical problem solving • VII.A.4. Justify the solution. ◦ VII.B. Problem Solving and Reasoning – Proportional reasoning • VII.B.1. Use proportional reasoning to solve problems that require fractions, ratios, percentages, decimals, and proportions in a variety of contexts using multiple representations. ◦ VII.C. Problem Solving and Reasoning – Logical reasoning • VII.C.1. Develop and evaluate convincing arguments. ◦ VIII.A. Communication and Representation – Language, terms, and symbols of mathematics • VIII.A.3. Use mathematical language for reasoning, problem solving, making connections, and generalizing. ◦ VIII.B. Communication and Representation – Interpretation of mathematical work • VIII.B.1. Model and interpret mathematical ideas and concepts using multiple representations. • VIII.B.2. Summarize and interpret mathematical information provided orally, visually, or in written form within the given context. ◦ VIII.C. Communication and Representation – Presentation and representation of mathematical work

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		• VIII.C.3. Explain, display, or justify mathematical ideas and arguments using precise mathematical language in written or oral communications.
2.8	***Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:***	

2.8A	**Create two-dimensional shapes based on given attributes, including number of sides and vertices.**	Create
		
		TWO-DIMENSIONAL SHAPES BASED ON GIVEN ATTRIBUTES, INCLUDING NUMBER OF SIDES AND VERTICES
		
		Including, but not limited to:
		
		• Variety of materials and drawings
		  ◦ Computer programs
		  ◦ Art materials
		• Two-dimensional figure – a figure with two basic units of measure, usually length and width
		• Polygon – a closed figure with at least 3 sides, where all sides are straight (no curves)
		• Spatial visualization – creation and manipulation of mental representations of shapes
		• Attributes of two-dimensional figures – characteristics that define a geometric figure (e.g., sides, vertices, etc.)
		• Properties of two-dimensional figures – relationship of attributes within a geometric figure (e.g., a square has 4 sides equal in length and 4 square corners, etc.) and between a

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		group of geometric figures (e.g., a square and a rectangle both have 4 sides and 4 square corners; however, a square has 4 sides equal in length but a rectangle has only opposite sides equal in length; etc.) • Attributes of two-dimensional figures ◦ Side – a straight outer boundary between two vertices (line segment) of a two-dimensional figure • Number of sides • Length of sides ◦ Vertex (vertices) in a two-dimensional figure – the point (corner) where two sides of a two-dimensional figure meet • Number of vertices • Types of vertices ◦ Square corners • Square corners can be determined using the corner of a known square or rectangle (e.g., sticky note, sheet of paper, etc.). ◦ May have a box in corner to represent square corner • Not square corners • Opposite corners • Attributes that do not identify two-dimensional figures ◦ Orientation ◦ Size ◦ Color ◦ Texture • Regular figure – a polygon with all sides and corners that appear to be the same or equal • Irregular figure – a polygon with sides and/or corners that appear to be different or unequal • Create regular and irregular two-dimensional figures based on attributes and properties. ◦ Circle • A figure formed by a closed curve with all points equal distance from the center

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		• No straight sides • No vertices ◦ Triangle • 3 sides • 3 vertices ◦ Rectangle • 4 sides • 4 vertices • Opposite sides equal in length • 4 square corners ◦ Rhombus • 4 sides • 4 vertices • All sides equal in length • Opposite corners equal ◦ Square (a special type of rectangle and a special type of rhombus) • 4 sides • 4 vertices • All sides equal in length • Opposite sides equal in length • 4 square corners • Opposite corners equal ◦ Pentagon • 5 sides • 5 vertices ◦ Hexagon • 6 sides • 6 vertices ◦ 7-gon (heptagon)

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TEKS# / SE#	TEKS	SPECIFICITY
		• 7 sides • 7 vertices ◦ Octagon • 8 sides • 8 vertices ◦ 9-gon (nonagon) • 9 sides • 9 vertices ◦ Decagon • 10 sides • 10 vertices ◦ 11-gon (hendecagon) • 11 sides • 11 vertices ◦ 12-gon (dodecagon) • 12 sides • 12 vertices Note(s): • Grade Level(s): ◦ Grade 1 created two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons. ◦ Grade 1 identified two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language. ◦ Grade 3 will use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories.

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		◦ Various mathematical process standards will be applied to this student expectation as appropriate. • TxRCFP: ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts • TxCCRS: ◦ III.A. Geometric Reasoning – Figures and their properties • III.A.1. Recognize characteristics and dimensional changes of two- and three-dimensional figures.
2.8B	**Classify and sort three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes as special rectangular prisms), and triangular prisms, based on attributes using formal geometric language.**	Classify, Sort THREE-DIMENSIONAL SOLIDS, INCLUDING SPHERES, CONES, CYLINDERS, RECTANGULAR PRISMS (INCLUDING CUBES AS SPECIAL RECTANGULAR PRISMS), AND TRIANGULAR PRISMS, BASED ON ATTRIBUTES USING FORMAL GEOMETRIC LANGUAGE Including, but not limited to: • Three-dimensional figure – a figure that has measurements including length, width (depth), and height • Sort – grouping objects or figures by a shared characteristic or attribute • Classify – applying an attribute to categorize a sorted group • Attributes of three-dimensional figures – characteristics that define a geometric figure (e.g., faces, curved surfaces, edges, vertices, etc.) • Properties of three-dimensional figures – relationship of attributes within a geometric figure (e.g., a rectangular prism has 6 faces and each pair of opposite faces are the same size and shape, etc.) and between a group of geometric figures (e.g., a cube and a rectangular

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		prism both have 6 faces with opposite faces equal in size and shape; however, a cube has only square faces but a rectangular prism can have square or rectangular faces; etc.) • Attributes of three-dimensional figures ◦ Surfaces • Curved surface • Flat surface ◦ Face of a prism – a polygon that forms a surface of a prism • Number of faces • Shape of faces ◦ Edge – where the sides of two faces meet on a three-dimensional figure • Number of edges ◦ Vertex (vertices) in a three-dimensional figure – the point (corner) where three or more edges of a three-dimensional figure meet • Number of vertices ◦ Curved surface three-dimensional figures • Cone ◦ 1 flat surface shaped like a circle ◦ 1 curved surface ◦ 1 vertex • Cylinder ◦ 2 equal, opposite, flat surfaces shaped like circles ◦ 1 curved surface • Sphere ◦ 1 curved surface with all points on the surface equal distance from the center ◦ Prisms • Triangular prism ◦ 5 faces (2 triangular faces, 3 rectangular faces) ◦ 9 edges

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		◦ 6 vertices • Rectangular prism ◦ 6 rectangular faces ◦ 12 edges ◦ 8 vertices • Cube (special rectangular prism or square prism) ◦ 6 square faces ◦ 12 edges ◦ 8 vertices ◦ Pyramids • Triangular pyramid ◦ 4 triangular faces ◦ 6 edges ◦ 4 vertices • Rectangular pyramid (including square pyramid) ◦ 5 faces (1 rectangular/square face, 4 triangular faces) ◦ 8 edges ◦ 5 vertices • Concrete models (e.g., wood or plastic figures, etc.), real-world objects (e.g., a cereal box, can of beans, etc.), and pictorial models (e.g., drawings, images, etc.) • Collection of three-dimensional figures ◦ Sort and justify • Rule used for sorting expressed • Attributes and properties of geometric figures expressed ◦ Existence (have) and absence (do not have) of attributes and properties expressed (e.g., figures that have “a common attribute” and figures that do not have “a common attribute”) Note(s):

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		• Grade Level(s):
		  ◦ Grade 1 classified and sorted regular and irregular two-dimensional shapes based on attributes using informal geometric language.
		  ◦ Grade 3 will classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language.
		  ◦ Various mathematical process standards will be applied to this student expectation as appropriate.
		• TxRCFP:
		  ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts
		• TxCCRS:
		  ◦ III.A. Geometric Reasoning – Figures and their properties
		  • III.A.1. Recognize characteristics and dimensional changes of two- and three-dimensional figures.

2.8C	**Classify and sort polygons with 12 or fewer sides according to attributes, including identifying the number of sides and number of vertices.**	Classify, Sort POLYGONS WITH 12 OR FEWER SIDES ACCORDING TO ATTRIBUTES, INCLUDING IDENTIFYING THE NUMBER OF SIDES AND NUMBER OF VERTICES Including, but not limited to: • Two-dimensional figure – a figure with two basic units of measure, usually length and width • Sort – grouping objects or figures by a shared characteristic or attribute • Classify – applying an attribute to categorize a sorted group • Attributes of two-dimensional figures – characteristics that define a geometric figure (e.g.,

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		sides, vertices, etc.) • Properties of two-dimensional figures – relationship of attributes within a geometric figure (e.g., a square has 4 sides equal in length and 4 square corners, etc.) and between a group of geometric figures (e.g., a square and a rectangle both have 4 sides and 4 square corners; however, a square has 4 sides equal in length but a rectangle has only opposite sides equal in length; etc.) • Regular figure – a polygon with all sides and corners that appear to be the same or equal • Irregular figure – a polygon with sides and/or corners that appear to be different or unequal • Attributes of two-dimensional figures ◦ Side – a straight outer boundary between two vertices (line segment) of a two-dimensional figure • Number of sides • Length of sides ◦ Vertex (vertices) in a two-dimensional figure – the point (corner) where two sides of a two-dimensional figure meet • Number of vertices • Types of vertices ◦ Square corners • Square corners can be determined using the corner of a known square or rectangle (e.g., sticky note, sheet of paper, etc.). ◦ May have a box in corner to represent square corner ◦ Not square corners ◦ Opposite corners • Polygon – a closed figure with at least 3 sides, where all sides are straight (no curves) ◦ Types of polygons • Triangle ◦ 3 sides ◦ 3 vertices • Rectangle

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		◦ 4 sides ◦ 4 vertices ◦ Opposite sides equal in length ◦ 4 square corners • Rhombus ◦ 4 sides ◦ 4 vertices ◦ All sides equal in length ◦ Opposite corners equal • Square (a special type of rectangle and a special type of rhombus) ◦ 4 sides ◦ 4 vertices ◦ All sides equal in length ◦ Opposite sides equal in length ◦ 4 square corners ◦ Opposite corners equal • Pentagon ◦ 5 sides ◦ 5 vertices • Hexagon ◦ 6 sides ◦ 6 vertices • 7-gon (heptagon) ◦ 7 sides ◦ 7 vertices • Octagon ◦ 8 sides ◦ 8 vertices • 9-gon (nonagon)

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		◦ 9 sides ◦ 9 vertices • Decagon ◦ 10 sides ◦ 10 vertices • 11-gon (hendecagon) ◦ 11 sides ◦ 11 vertices • 12-gon (dodecagon) ◦ 12 sides ◦ 12 vertices • Concrete models (e.g., wood or plastic figures, etc.) and pictorial models (e.g., drawings, images, etc.) • Collection of two-dimensional figures ◦ Sort and justify • Rule used for sorting expressed • Attributes and properties of geometric figures expressed ◦ Existence (have) and absence (do not have) of attributes and properties expressed (e.g., figures that have “a common attribute” and figures that do not have “a common attribute”) Note(s): • Grade Level(s): ◦ Grade 1 classified and sorted regular and irregular two-dimensional shapes based on attributes using informal geometric language. ◦ Grade 3 will classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language.

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		◦ Various mathematical process standards will be applied to this student expectation as appropriate. • TxRCFP: ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts • TxCCRS: ◦ III.A. Geometric Reasoning – Figures and their properties • III.A.1. Recognize characteristics and dimensional changes of two- and three-dimensional figures.
2.8D	**Compose two-dimensional shapes and three-dimensional solids with given properties or attributes.**	Compose TWO-DIMENSIONAL SHAPES WITH GIVEN PROPERTIES OR ATTRIBUTES Including, but not limited to: • Two-dimensional figure – a figure with two basic units of measure, usually length and width • Spatial visualization – creation and manipulation of mental representations of shapes • Compose figures – to combine smaller geometric figures to form a larger geometric figure • Attributes of two-dimensional figures – characteristics that define a geometric figure (e.g., sides, vertices, etc.) • Properties of two-dimensional figures – relationship of attributes within a geometric figure (e.g., a square has 4 sides equal in length and 4 square corners, etc.) and between a group of geometric figures (e.g., a square and a rectangle both have 4 sides and 4 square corners; however, a square has 4 sides equal in length but a rectangle has only opposite sides equal in length; etc.) • Regular figure – a polygon with all sides and corners that appear to be the same or equal

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		• Irregular figure – a polygon with sides and/or corners that appear to be different or unequal
		• Attributes of two-dimensional figures
		  ◦ Side – a straight outer boundary between two vertices (line segment) of a two-dimensional figure
		  • Number of sides
		  • Length of sides
		  ◦ Vertex (vertices) in a two-dimensional figure – the point (corner) where two sides of a two-dimensional figure meet
		  • Number of vertices
		  • Types of vertices
		  ◦ Square corners
		  • Square corners can be determined using the corner of a known square or rectangle (e.g., sticky note, sheet of paper, etc.).
		  ◦ May have a box in corner to represent square corner
		  ◦ Not square corners
		  ◦ Opposite corners
		• Attributes that do not identify a two-dimensional figure
		  ◦ Orientation
		  ◦ Size
		  ◦ Color
		  ◦ Texture
		• Compose two-dimensional figures using a variety of concrete models.
		• Compose regular and irregular figures based on attributes and properties.
		
		Compose
		
		THREE-DIMENSIONAL SOLIDS WITH GIVEN PROPERTIES OR ATTRIBUTES
		
		Including, but not limited to:

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		• Three-dimensional figure – a figure that has measurements including length, width (depth), and height
		• Spatial visualization – creation and manipulation of mental representations of shapes
		• Compose figures – to combine smaller geometric figures to form a larger geometric figure
		• Attributes of three-dimensional figures – characteristics that define a geometric figure (e.g., faces, curved surfaces, edges, vertices, etc.)
		• Properties of three-dimensional figures – relationship of attributes within a geometric figure (e.g., a rectangular prism has 6 faces and each pair of opposite faces are the same size and shape, etc.) and between a group of geometric figures (e.g., a cube and a rectangular prism both have 6 faces with opposite faces equal in size and shape; however, a cube has only square faces but a rectangular prism can have square or rectangular faces; etc.)
		• Attributes of three-dimensional figures
		  ◦ Surfaces
		  • Curved surface
		  • Flat surface
		  ◦ Face of a prism – a polygon that forms a surface of a prism
		  • Number of faces
		  • Shape of faces
		  ◦ Edge – where the sides of two faces meet on a three-dimensional figure
		  • Number of edges
		  ◦ Vertex (vertices) in a three-dimensional figure – the point (corner) where three or more edges of a three-dimensional figure meet
		  • Number of vertices
		• Attributes that do not identify a three-dimensional figure
		  ◦ Orientation
		  ◦ Size
		  ◦ Color
		  ◦ Texture

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		• Compose three-dimensional figures using a variety of concrete models.
		• Compose three-dimensional figures based on attributes and properties.
		
		Note(s):
		
		• Grade Level(s):
		  ◦ Grade 1 composed two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible.
		  ◦ Various mathematical process standards will be applied to this student expectation as appropriate.
		• TxRCFP:
		  ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts
		• TxCCRS:
		  ◦ III.A. Geometric Reasoning – Figures and their properties
		  • III.A.1. Recognize characteristics and dimensional changes of two- and three-dimensional figures.

2.8E	**Decompose two-dimensional shapes such as cutting out a square from a rectangle, dividing a shape in half, or partitioning a rectangle into identical triangles and identify the resulting geometric parts.**	Decompose TWO-DIMENSIONAL SHAPES Including, but not limited to: • Two-dimensional figure – a figure with two basic units of measure, usually length and width • Spatial visualization – creation and manipulation of mental representations of shapes • Decompose figures – to break a geometric figure into two or more smaller geometric

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		figures
		• Decompose two-dimensional figures by cutting, dividing, or partitioning.
		  ◦ Such as cutting a square from a rectangle
		  ◦ Such as dividing a shape in half
		  ◦ Such as partitioning a rectangle into identical triangles
		• Resulting shapes equal or not equal
		• Decompose two-dimensional shapes using a variety of concrete models and materials.
		
		Identify
		
		THE RESULTING GEOMETRIC PARTS OF A DECOMPOSED TWO-DIMENSIONAL SHAPE
		
		Including, but not limited to:
		
		• Two-dimensional figure – a figure with two basic units of measure, usually length and width
		• Name resulting geometric figures (e.g., a rectangle partitioned into smaller rectangles that may or may not be equal in size or shape; a rectangle partitioned into triangles that may or may not be equal in size or shape; etc.)
		
		Note(s):
		
		• Grade Level(s):
		  ◦ Various mathematical process standards will be applied to this student expectation as appropriate.
		• TxRCFP:
		  ◦ Applying knowledge of two-dimensional shapes and three-dimensional solids, including exploration of early fraction concepts
		• TxCCRS:

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		◦ III.A. Geometric Reasoning – Figures and their properties • III.A.1. Recognize characteristics and dimensional changes of two- and three-dimensional figures.

English Language Proficiency Standards

ELPS#	SUBSECTION C: CROSS-CURRICULAR SECOND LANGUAGE ACQUISITION ESSENTIAL KNOWLEDGE AND SKILLS.
The English Language Proficiency Standards (ELPS), as required by 19 Texas Administrative Code, Chapter 74, Subchapter A, §74.4, outline English language proficiency level descriptors and student expectations for English language learners (ELLs). School districts are required to implement ELPS as an integral part of each subject in the required curriculum.	
School districts shall provide instruction in the knowledge and skills of the foundation and enrichment curriculum in a manner that is linguistically accommodated commensurate with the student's levels of English language proficiency to ensure that the student learns the knowledge and skills in the required curriculum. School districts shall provide content-based instruction including the cross-curricular second language acquisition essential knowledge and skills in subsection (c) of the ELPS in a manner that is linguistically accommodated to help the student acquire English language proficiency. http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html#74.4 **Choose appropriate ELPS to support instruction.**	

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ELPS#	SUBSECTION C: CROSS-CURRICULAR SECOND LANGUAGE ACQUISITION ESSENTIAL KNOWLEDGE AND SKILLS.
ELPS.c.1	***The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:***
ELPS.c.1A	**use prior knowledge and experiences to understand meanings in English**
ELPS.c.1B	**monitor oral and written language production and employ self-corrective techniques or other resources**
ELPS.c.1C	**use strategic learning techniques such as concept mapping, drawing, memorizing, comparing, contrasting, and reviewing to acquire basic and grade-level vocabulary**
ELPS.c.1D	**speak using learning strategies such as requesting assistance, employing non-verbal cues, and using synonyms and circumlocution (conveying ideas by defining or describing when exact English words are not known)**
ELPS.c.1E	**internalize new basic and academic language by using and reusing it in meaningful ways in speaking and writing activities that build concept and language attainment**
ELPS.c.1F	**use accessible language and learn new and essential language in the process**
ELPS.c.1G	**demonstrate an increasing ability to distinguish between formal and informal English and an increasing knowledge of when to use each one commensurate with grade-level learning expectations**
ELPS.c.1H	**develop and expand repertoire of learning strategies such as reasoning inductively or deductively, looking for patterns in language, and analyzing sayings and expressions commensurate with grade-level learning expectations.**
ELPS.c.2	***The ELL listens to a variety of speakers including teachers, peers, and electronic media to gain an increasing level of comprehension of newly acquired language in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in listening. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:***
ELPS.c.2A	**distinguish sounds and intonation patterns of English with increasing ease**
ELPS.c.2B	**recognize elements of the English sound system in newly acquired vocabulary such as long and short vowels, silent letters, and**

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ELPS#	SUBSECTION C: CROSS-CURRICULAR SECOND LANGUAGE ACQUISITION ESSENTIAL KNOWLEDGE AND SKILLS.
	consonant clusters
ELPS.c.2C	**learn new language structures, expressions, and basic and academic vocabulary heard during classroom instruction and interactions**
ELPS.c.2D	**monitor understanding of spoken language during classroom instruction and interactions and seek clarification as needed**
ELPS.c.2E	**use visual, contextual, and linguistic support to enhance and confirm understanding of increasingly complex and elaborated spoken language**
ELPS.c.2F	**listen to and derive meaning from a variety of media such as audio tape, video, DVD, and CD ROM to build and reinforce concept and language attainment**
ELPS.c.2G	**understand the general meaning, main points, and important details of spoken language ranging from situations in which topics, language, and contexts are familiar to unfamiliar**
ELPS.c.2H	**understand implicit ideas and information in increasingly complex spoken language commensurate with grade-level learning expectations**
ELPS.c.2I	**demonstrate listening comprehension of increasingly complex spoken English by following directions, retelling or summarizing spoken messages, responding to questions and requests, collaborating with peers, and taking notes commensurate with content and grade-level needs.**
ELPS.c.3	***The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in speaking. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. The student is expected to:***
ELPS.c.3A	**practice producing sounds of newly acquired vocabulary such as long and short vowels, silent letters, and consonant clusters to pronounce English words in a manner that is increasingly comprehensible**
ELPS.c.3B	**expand and internalize initial English vocabulary by learning and using high-frequency English words necessary for identifying and describing people, places, and objects, by retelling simple stories and basic information represented or supported by pictures, and by**

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ELPS#	SUBSECTION C: CROSS-CURRICULAR SECOND LANGUAGE ACQUISITION ESSENTIAL KNOWLEDGE AND SKILLS.
	learning and using routine language needed for classroom communication
ELPS.c.3C	**speak using a variety of grammatical structures, sentence lengths, sentence types, and connecting words with increasing accuracy and ease as more English is acquired**
ELPS.c.3D	**speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency**
ELPS.c.3E	**share information in cooperative learning interactions**
ELPS.c.3F	**ask and give information ranging from using a very limited bank of high-frequency, high-need, concrete vocabulary, including key words and expressions needed for basic communication in academic and social contexts, to using abstract and content-based vocabulary during extended speaking assignments**
ELPS.c.3G	**express opinions, ideas, and feelings ranging from communicating single words and short phrases to participating in extended discussions on a variety of social and grade-appropriate academic topics**
ELPS.c.3H	**narrate, describe, and explain with increasing specificity and detail as more English is acquired**
ELPS.c.3I	**adapt spoken language appropriately for formal and informal purposes**
ELPS.c.3J	**respond orally to information presented in a wide variety of print, electronic, audio, and visual media to build and reinforce concept and language attainment.**
ELPS.c.4	***The ELL reads a variety of texts for a variety of purposes with an increasing level of comprehension in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in reading. In order for the ELL to meet grade-level learning expectations across the foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For Kindergarten and Grade 1, certain of these student expectations apply to text read aloud for students not yet at the stage of decoding written text. The student is expected to:***
ELPS.c.4A	**learn relationships between sounds and letters of the English language and decode (sound out) words using a combination of skills such as recognizing sound-letter relationships and identifying cognates, affixes, roots, and base words**
ELPS.c.4B	**recognize directionality of English reading such as left to right and top to bottom**

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ELPS#	SUBSECTION C: CROSS-CURRICULAR SECOND LANGUAGE ACQUISITION ESSENTIAL KNOWLEDGE AND SKILLS.
ELPS.c.4C	**develop basic sight vocabulary, derive meaning of environmental print, and comprehend English vocabulary and language structures used routinely in written classroom materials**
ELPS.c.4D	**use prereading supports such as graphic organizers, illustrations, and pretaught topic-related vocabulary and other prereading activities to enhance comprehension of written text**
ELPS.c.4E	**read linguistically accommodated content area material with a decreasing need for linguistic accommodations as more English is learned**
ELPS.c.4F	**use visual and contextual support and support from peers and teachers to read grade-appropriate content area text, enhance and confirm understanding, and develop vocabulary, grasp of language structures, and background knowledge needed to comprehend increasingly challenging language**
ELPS.c.4G	**demonstrate comprehension of increasingly complex English by participating in shared reading, retelling or summarizing material, responding to questions, and taking notes commensurate with content area and grade level needs**
ELPS.c.4H	**read silently with increasing ease and comprehension for longer periods**
ELPS.c.4I	**demonstrate English comprehension and expand reading skills by employing basic reading skills such as demonstrating understanding of supporting ideas and details in text and graphic sources, summarizing text, and distinguishing main ideas from details commensurate with content area needs**
ELPS.c.4J	**demonstrate English comprehension and expand reading skills by employing inferential skills such as predicting, making connections between ideas, drawing inferences and conclusions from text and graphic sources, and finding supporting text evidence commensurate with content area needs**
ELPS.c.4K	**demonstrate English comprehension and expand reading skills by employing analytical skills such as evaluating written information and performing critical analyses commensurate with content area and grade-level needs.**
ELPS.c.5	***The ELL writes in a variety of forms with increasing accuracy to effectively address a specific purpose and audience in all content areas. ELLs may be at the beginning, intermediate, advanced, or advanced high stage of English language acquisition in writing. In order for the ELL to meet grade-level learning expectations across foundation and enrichment curriculum, all instruction delivered in English must be linguistically accommodated (communicated, sequenced, and scaffolded) commensurate with the student's level of English language proficiency. For Kindergarten and Grade 1, certain of these student expectations do not apply until the student has reached the stage of***

TITLE : TEKS RS Unit 04: Two- and Three-Dimensional Figures **SUGGESTED DURATION :** 10 days

ELPS#	SUBSECTION C: CROSS-CURRICULAR SECOND LANGUAGE ACQUISITION ESSENTIAL KNOWLEDGE AND SKILLS.
	generating original written text using a standard writing system. The student is expected to:
ELPS.c.5A	**learn relationships between sounds and letters of the English language to represent sounds when writing in English**
ELPS.c.5B	**write using newly acquired basic vocabulary and content-based grade-level vocabulary**
ELPS.c.5C	**spell familiar English words with increasing accuracy, and employ English spelling patterns and rules with increasing accuracy as more English is acquired**
ELPS.c.5D	**edit writing for standard grammar and usage, including subject-verb agreement, pronoun agreement, and appropriate verb tenses commensurate with grade-level expectations as more English is acquired**
ELPS.c.5E	**employ increasingly complex grammatical structures in content area writing commensurate with grade-level expectations, such as:**
ELPS.c.5F	**write using a variety of grade-appropriate sentence lengths, patterns, and connecting words to combine phrases, clauses, and sentences in increasingly accurate ways as more English is acquired**
ELPS.c.5G	**narrate, describe, and explain with increasing specificity and detail to fulfill content area writing needs as more English is acquired.**

Teacher Notes

District Notes

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