

# Grading Rubric Scenario: Elementary

## Introduction

Mrs. Evans has two fifth-grade students in her special education class. She provides her students with instruction aligned with their grade-level Texas Essential Knowledge and Skills (TEKS) through their individual prerequisite access points. One student, Tobi, is accessing the curriculum using skills found in the first-grade TEKS, while the other, Natalie, is performing in the 8-18-month developmental range. Mrs. Evans takes grades using a task-analysis based [grading rubric](#).

## Identify Prerequisite Skill Access Points to TEKS

In the general education Math classroom, the students are working on TEKS 5.

*Geometry and measurement: The student applies mathematical process standards to classify two-dimensional figures by attributes and properties.*

*The student is expected to classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties.*

- (F) simplify numerical expressions that do not involve exponents, including up to two levels of grouping;
- (G) use concrete objects and pictorial models to develop the formulas for the volume of a rectangular prism, including the special form for a cube ( $V = l \times w \times h$ ,  $V = s \times s \times s$ , and  $V = Bh$ ); and
- (H) represent and solve problems related to perimeter and/or area and related to volume.

(5) Geometry and measurement. The student applies mathematical process standards to classify two-dimensional figures by attributes and properties. The student is expected to classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties.

- (6) Geometry and measurement. The student applies mathematical process standards to understand, recognize, and quantify volume. The student is expected to:
  - (A) recognize a cube with side length of one unit as a unit cube having one cubic unit of volume and the volume of a three-dimensional figure as the number of unit cubes ( $n$  cubic units) needed to fill it with no gaps or overlaps if possible; and
  - (B) determine the volume of a rectangular prism with whole number side lengths in problems related to the number of layers times the number of unit cubes in the area of the base.

## Tobi

Mrs. Evans uses the [Vertical Alignment document for Mathematics](#) to find the prerequisite access point for the student working at the first-grade level. She finds the section on **Geometry** and sees that the student expectation to **classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language** will work for Tobi.

### Geometry

**Geometry and spatial sense.** The student explores, describes, and organizes objects according to their attributes and position/location (Pre-K.V.C).

**Measurement.** The student recognizes differences in the measurable aspects of objects (Pre-K.V.D).

**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. (K.6; 1.6; 2.8). The student applies mathematical process standards to select and use units to describe length and time (1.7). The student applies mathematical process standards to select and use units to describe length, area, and time (2.9). The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties (3.6). The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement (3.7).

The student applies mathematical process standards to analyze geometric attributes in order to develop generalizations about their properties (4.6). The student applies mathematical process standards to classify two-dimensional figures by attributes and properties (5.5). The student applies mathematical process standards to identify locations on a coordinate plane (5.8). The student applies mathematical process standards to use coordinate geometry to identify locations on a plane (6.11).

**Proportionality.** The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships (7.5). The student applies mathematical process standards to use proportional relationships to describe dilations (8.3).

**Two-dimensional shapes.** The student applies mathematical process standards to develop transformational geometry concepts (8.10). The student is expected to

#### *Identifying and Using Attributes of Geometric Figures*

- name and describe common 2D shapes (PK3.V.C.1)
- attempt to create shapes using materials and/or manipulatives (PK3.V.C.2)
- name and describe common 2D shapes and name at least 1 solid 3D shape (PK4.V.C.1)
- create shapes using materials and/or manipulatives (PK4.V.C.2)
- identify two-dimensional shapes, including circles, triangles, rectangles, and squares as special rectangles (K)
- identify three-dimensional solids, including cylinders, cones, spheres, and cubes, in the real world (K)
- identify two-dimensional components of three-dimensional objects (K)
- identify attributes of two-dimensional shapes using informal and formal geometric language interchangeably (K)
- classify and sort a variety of regular and irregular two- and three-dimensional figures regardless of orientation or size (K)
- create two-dimensional shapes using a variety of materials and drawings (K)
- **classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language (1)**
- distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape (1)

## Natalie

Natalie is accessing the curriculum within the 8-18-month developmental range, but the vertical alignment document only goes to the prekindergarten level. Mrs. Evans considers if the prekindergarten expectation to **name and describe common 2D shapes** would work for Natalie. To be sure, she first checks the [Texas Prekindergarten Guidelines](#) for the child behaviors listed for the student to demonstrate the skill. However, those behaviors are too complex for her student's current performance level.

Next, Mrs. Evans consults the [Texas Early Learning Guidelines](#) and finds the section on **Cognitive Development** under **Exploration and Discovery** will best match her student's learning needs. The expectation for students at the **8-18 month range** to **place a shape into a box with different shape openings** aligns with Natalie's present level of performance.

### Identifying and Using Attributes of Geometric Figures

- name and describe common 2D shapes (PK3.V.C.1)

PK3 Outcome	PK4 Outcome
PK3.V.C.1 Child names and describes common 2D shapes.	PK4.V.C.1 Child names and describes common 2D shapes and names at least 1 solid 3D shape.

#### Child Behaviors

The child may:

- recognize and describe attributes of shapes
- describe the objects in the environment using shape names
- point to shapes they create in the art area and use the correct names to identify them (e.g., "Teacher, look – I made a triangle." or "Teacher, look, this crayon cup is a cylinder")

#### 8-18 months | older infants might

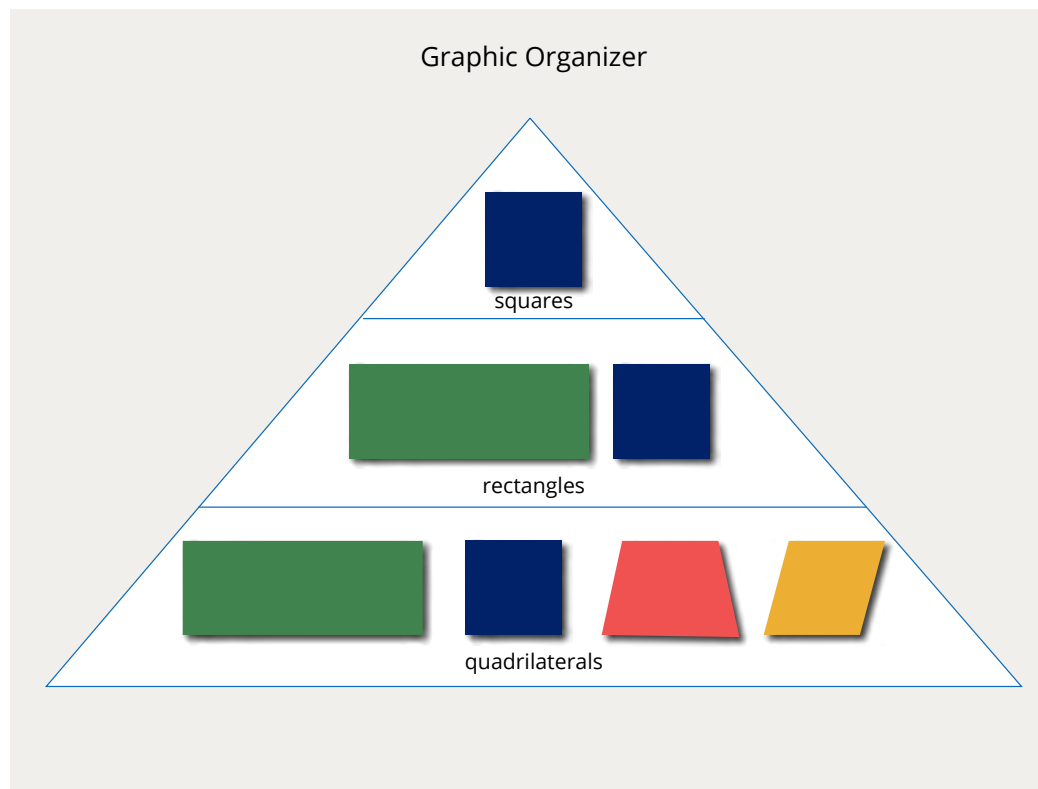
- Look at books
- Look to see where objects went when they are dropped
- Touch and feel others' faces, skin, or hair
- Enjoy playing with objects that make sounds and pay attention to different sounds objects can make, such as drums, noise makers, or bells
- Ask to continue a game by signing or saying "more"
- Push a button on a toy to make objects pop up or to make a sound over and over again
- Sit on a rocking horse or toy and move it back and forth
- Look closely at small objects, such as pieces of paper or leaves
- Put a shape in a box with different shape openings (shape sorters)
- Stack blocks or objects

#### As a caregiver, you can

- Share books with older infants. Show them books with interesting colors, patterns, pictures, and textures
- Notice when older infants drop items and pick them up, and allow them to repeat
- Allow older infants to touch your face, skin, or hair and name body parts ("That's my nose. Here's your nose.")
- Provide toys and objects that make noise, and create opportunities to make and listen to different sounds together (crunch leaves or bang on pots and pans)
- Notice and respond positively to older infants' desire to play games over and over again
- Create an environment that encourages discovery, and give uninterrupted playtime
- Give older infants safe toys to repeat motions, such as rocking, sliding, or balancing
- Engage and play alongside older infants
- Celebrate when older infants learn how to use a toy or object

## Instruction and Grading

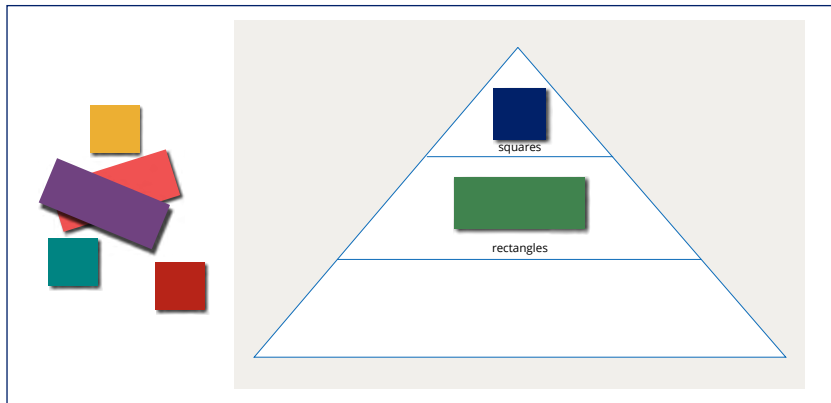
Mrs. Evans integrates fifth-grade geometry concepts into her lessons while tailoring instruction for Tobi and Natalie to align with the specially designed instruction (SDI) outlined in each of their IEPs. The fifth-grade general education class is sorting quadrilaterals based on their attributes using a pyramid hierarchy graphic organizer. To support Tobi and Natalie, Mrs. Evans uses a modified version of the organizer with shape manipulatives and visual supports aligned to their IEPs. During the whole-group activity, she presents a square and a rectangle using images and objects and students participate in a discussion of their attributes. Using the graphic organizer, Mrs. Evans models how both shapes are classified as quadrilaterals and explains that a square is a specific type of rectangle.



## Tobi

Mrs. Evans uses images that Tobi can manipulate during instruction. Based on his prerequisite access point to the fifth-grade TEKS, he is expected to **classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language.**

During the whole-group activity, Mrs. Evans used colored square and rectangle images to represent the shapes. For Tobi's comprehension activity, she provides a simplified pyramid hierarchy graphic organizer labeled with the name and image of a square and rectangle. She places a colored square or rectangle image on the table in front of Tobi, and he puts them on the graphic organizer. For this beginning session, Mrs. Evans will only present Tobi with two squares and one rectangle. She uses the [Hierarchy of Cueing and Prompting](#) to preplan the basic supports Tobi needs built into the activity. Mrs. Evans knows that Tobi will require her to cue him by touching his hand when it is time for him to pick up and place an image on the chart. Any additional prompts Tobi requires, beyond those preplanned for each step, impact the prompt code and score. Tobi's physical responses are used for grading.

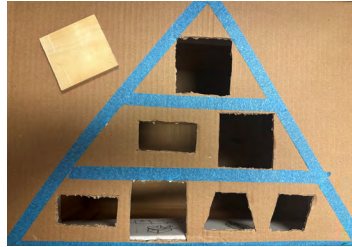


Steps	Prompt Code and Score I - Independent (5 points) V - Verbal direction (4 points) G - Gesture assist (3 points) M - Adult model (2 points) P - Physical assist (1 point)	Step Completion Score 5 points each
The teacher will state, "The hierarchy shows that squares (points to top level of graphic) are a special kind of rectangle (points to middle level of graphic). You are going to put the shape in the space on the chart that best describes the shape."		
1. The teacher will place a colored square on the table in front of Tobi, naming its attributes, stating "This shape has 4 sides, 4 right angles, 2 pairs parallel sides, and all sides are equal length. Put this shape where it goes on the chart," and touch Tobi's hand. Tobi will pick up the shape.	I - 5	5
2. Tobi will place the shape in the correct spot on the chart.	M-2 (Placed another square image on the top level of graphic to prompt Tobi)	5
The teacher will say, "Squares (points to top level of graphic) are a special kind of rectangle (points to middle level of graphic)."		
3. The teacher will place a colored rectangle on the table in front of Tobi, naming its attributes, stating "This shape has 4 sides, 4 right angles, 2 pairs parallel sides, and the opposite sides are equal length. Put this shape where it goes on the chart," and touch Tobi's hand. Tobi will pick up the shape.	I - 5	5
4. Tobi will place the shape in the correct spot on the chart.	M-2 (Placed another rectangle image on the middle level of graphic to prompt Tobi)	5
The teacher will say, "Remember, the hierarchy shows that squares (points to top level of graphic) are a special kind of rectangle (points to middle level of graphic)."		
5. The teacher will place a colored square on the table in front of Tobi, naming its attributes, stating "This shape has 4 sides, 4 right angles, 2 pairs parallel sides, and all sides are equal length. Put this shape where it goes on the chart," and touch Tobi's hand. Tobi will pick up the shape.	I-5	5
6. Tobi will place the shape in the correct spot on the chart.	M-2 (Placed another square image on the top level of graphic to prompt Tobi)	5
<b>Total Points Available (# of steps x 10): 60</b>	<b>Prompt Score: 21</b>	<b>Completion Score: 30</b>
<b>Total Score</b> [(Prompt Score + Completion Score) / Total Points Available] x 100 =		<b>85</b> [(21 + 30) / 60] x 100 = 85

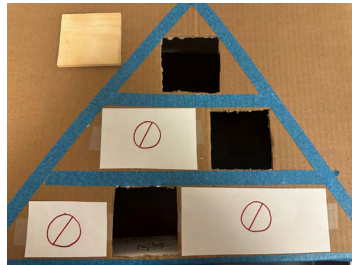
Comments in the Prompt Code and Score section have been included for training purposes and staff may find it helpful to list similar notes as they work with students.

## Natalie

Mrs. Evans uses concrete objects that Natalie can manipulate during instruction. In her prerequisite access point to the fifth-grade TEKS, Natalie is expected to **show understanding by putting a shape in a box with different shape openings.**



During the whole-group activity, Mrs. Evans used wooden square and rectangle manipulatives to represent the shapes. For Natalie’s comprehension activity, she sorts these manipulatives on a pyramid hierarchy graphic organizer with square and rectangle cutouts. For this first lesson, Natalie uses only square shapes, so Mrs. Evans has covered the rectangle cutouts. She uses the [Hierarchy of Cueing and Prompting](#) to preplan the basic supports Natalie needs built into the activity. Mrs. Evans knows that Natalie requires a verbal direction before beginning an activity, so she will provide the initial verbal instruction of “Match the squares. Put them in.” Natalie also needs a cue with Mrs. Evans pointing to the next object to pick up. Any additional prompts Natalie requires, beyond those preplanned for each step, impact the prompt code and score. Natalie’s physical responses are used for grading.



Steps	<b>Prompt Code and Score</b> I - Independent (5 points) V - Verbal direction (4 points) G - Gesture assist (3 points) M - Adult model (2 points) P - Physical assist (1 point)	<b>Step Completion Score</b> 5 points each
The teacher will place five squares in front of Natalie with the sorting box. The teacher will say, “Match the squares. Put them in.” The teacher will point to the first square.		
1. Natalie will place Square 1 in a correct space.	G-3 (Tapped on box top several times to prompt Natalie to put in.)	5
2. The teacher will point to the next object. Natalie will place Square 2 in a correct space.	V-4 (Prompted Natalie to put in the item she was holding.)	5
3. The teacher will point to the next object. Natalie will place Square 3 in a correct space.	G-3 (Tapped on box top several times to prompt Natalie to put in.)	5
4. The teacher will point to the next object. Natalie will place Square 4 in a correct space.	G-3 (Tapped on box top several times to prompt Natalie to put in.)	5
5. The teacher will point to the next object. Natalie will place Square 5 in a correct space.	V-4 (Prompted Natalie to put in the item she was holding.)	5
<b>Total Points Available (# of steps x 10):</b> 50	<b>Prompt Score:</b> 17	<b>Completion Score:</b> 25
<b>Total Score</b> [(Prompt Score + Completion Score) / Total Points Available] x 100=	[(17 + 25) / 50] x 100 = 84 <b>84</b>	

**Comments in the Prompt Code and Score section have been included for training purposes and staff may find it helpful to list similar notes as they work with students.**