

Standardized Assessment Tasks for
STAAR Alternate

Grade 5 Mathematics

STAAR Reporting Category 1 – Numbers, Operations, and Quantitative Reasoning: The student will demonstrate an understanding of numbers, operations, and quantitative reasoning.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(5.3) Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve meaningful problems. The student is expected to</p> <ul style="list-style-type: none"> (A) use addition and subtraction to solve problems involving whole numbers and decimals; Readiness Standard (B) use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology); Readiness Standard (C) use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology), including interpreting the remainder within a given context; Readiness Standard (D) identify common factors of a set of whole numbers; Supporting Standard (E) model situations using addition and/or subtraction involving fractions with like denominators using [concrete objects,] pictures, words, and numbers. Supporting Standard 	<p>Essence Statement A: Models and solves addition, subtraction, multiplication, and division problems.</p>

Level 3

Prerequisite skill: model addition and subtraction of two-digit numbers with objects, pictures, words, and numbers

The student will be presented one set of objects that has a quantity equal to a two-digit number. The student will generate a subtraction problem using the objects. The student will generate a number sentence to represent the subtraction problem. The student will generate an addition number sentence to check his or her answer for the subtraction problem.

Predetermined Criteria

1. The student will generate a subtraction problem using the objects.
2. The student will generate a number sentence to represent the subtraction problem.
3. The student will generate an addition number sentence to check his or her answer for the subtraction problem.

Process skill: explain and record observations using objects, words, pictures, numbers, and technology

Level 2

Prerequisite skill: model and create addition and subtraction problem situations with concrete objects and write corresponding number sentences

The student will be presented a group of objects and a subtraction number sentence as shown below:

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

The student will identify how many total objects are in the group. The number will be placed in the appropriate part of the number sentence. Some of the objects will be removed from the group. The student will count how many objects were removed. The number will be placed in the appropriate part of the number sentence. The student will complete the number sentence.

Predetermined Criteria

1. The student will identify how many total objects are in the group.
2. The student will count how many objects were removed.
3. The student will complete the number sentence.

Process skill: relate informal language to mathematical language and symbols

Level 1

Prerequisite skill: use concrete models or make a verbal word problem for subtracting 1–5 objects from a set

The student will be presented a container of objects. The student will experience the total amount of objects in the container. The student will participate in removing all but one object from the container. The student will experience the remaining object in the container.

Predetermined Criteria

1. The student will experience the total amount of objects in the container.
2. The student will participate in removing all but one object from the container.
3. The student will experience the remaining object in the container.

**Definitions/Examples for STAAR Reporting Category 3 (5.7)
Essence Statement B**

The following definitions clarify terms used in the grade 5 mathematics assessment tasks to ensure that the content of the tasks is understood. When appropriate, examples and nonexamples have been provided for further clarification. These are just examples and do not represent all the appropriate ways to test the skills in the STAAR Alternate assessment tasks.

Level 2: page 7

two-dimensional figures – flat geometric figures that have length and width. Polygons (closed figures with straight sides) such as triangles, rectangles, and squares are two-dimensional figures. Circles are also two-dimensional figures.

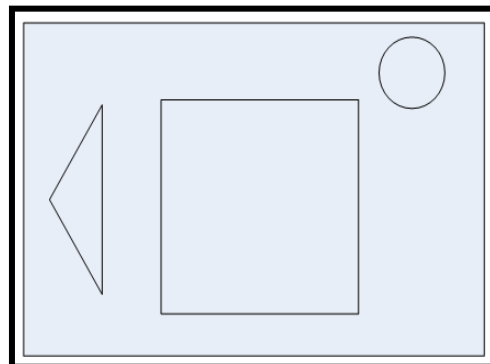
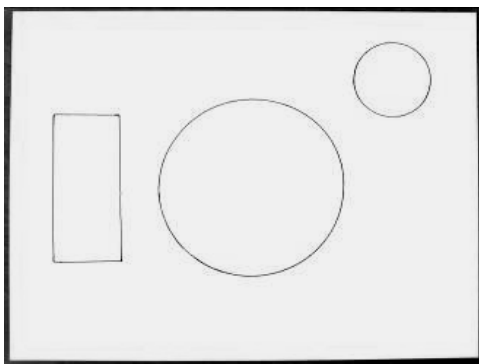
geometric attribute – a characteristic of a geometric figure.

- Number of sides and number of vertices are attributes of a two-dimensional figure. A vertex is a point where two sides meet on a polygon.
- Color, size, texture, height, and the name of a figure are NOT geometric attributes.

Level 1: page 7

placemat template – a representation of a place setting using geometric figures that are outlines of actual tableware.

- See the examples below:



STAAR Reporting Category 3 – Geometry and Spatial Reasoning: The student will demonstrate an understanding of geometry and spatial reasoning.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectation	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectation
<p>(5.7) Geometry and spatial reasoning. The student generates geometric definitions using critical attributes. The student is expected to</p> <p>(A) identify essential attributes including parallel, perpendicular, and congruent parts of two- and three-dimensional geometric figures. Supporting Standard</p>	<p>Essence Statement B: Uses attributes to identify geometric figures.</p>

Level 3

Prerequisite skill: use attributes to describe how 2 two-dimensional figures or 2 three-dimensional geometric figures are alike or different

The student will be presented different-sized envelopes, each with a business letter to be placed inside. All letters will be written on the same-size piece of paper. The student will determine where each letter needs to be folded and will test the fit to the corresponding envelope after each fold. The student will determine the minimum number of folds needed for each letter to fit in its envelope. The letter will be removed from each envelope and unfolded. The fold lines will be marked for the student. The student will determine the types and numbers of shapes that were formed for each folded letter. The student will compare the number of folds needed for each letter to fit the size of its envelope.

Predetermined Criteria

1. The student will determine the minimum number of folds needed for each letter to fit in its envelope.
2. The student will determine the types and numbers of shapes that were formed for each folded letter.
3. The student will compare the number of folds needed for each letter to fit the size of its envelope.

Process skill: identify mathematics in everyday situations

Transition

Level 2

Prerequisite skill: describe and identify two- and three-dimensional geometric figures in order to sort them according to a given attribute using informal and formal language

The student will be presented three large two-dimensional geometric figures that are all different. The student will identify each figure. The student will identify the number of sides for each figure. The student will be presented three smaller geometric figures the same shape as the larger figures. The student will match the smaller figures to the larger figures according to their attributes.

Predetermined Criteria

1. The student will identify each figure.
2. The student will identify the number of sides for each figure.
3. The student will match the smaller figures to the larger figures according to their attributes.

Level 1

Prerequisite skill: recognize shapes in real-life three-dimensional geometric figures or models of three-dimensional geometric figures

The student will be presented a template of a placemat with the shape of a napkin, shape of a plate, and base of a glass outlined and the actual matching tableware. The student will explore each outlined shape on the template. The student will explore the shape of each piece of tableware. The student will participate in placing each piece of tableware on its corresponding outlined shape.

Predetermined Criteria

1. The student will explore each outlined shape on the template.
2. The student will explore the shape of each piece of tableware.
3. The student will participate in placing each piece of tableware on its corresponding outlined shape.

Transition

Definitions/Examples for STAAR Reporting Category 4 (5.10)
Essence Statement C

The following definitions clarify terms used in the grade 5 mathematics assessment tasks to ensure that the content of the tasks is understood. When appropriate, examples and nonexamples have been provided for further clarification. These are just examples and do not represent all the appropriate ways to test the skills in the STAAR Alternate assessment tasks.

Level 3, Level 2, and Level 1: pages 10 and 11

capacity – a measure of how much a container can hold.

STAAR Reporting Category 4 – Measurement: The student will demonstrate an understanding of the concepts and uses of measurement.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(5.10) Measurement. The student applies measurement concepts involving length (including perimeter), area, capacity/volume, and weight/mass to solve problems. The student is expected to</p> <ul style="list-style-type: none"> (A) perform simple conversions within the same measurement system (SI (metric) or customary); Supporting Standard (B) connect models for perimeter, area, and volume with their respective formulas; Supporting Standard (C) select and use appropriate units and formulas to measure length, perimeter, area, and volume. Readiness Standard 	<p>Essence Statement C: Uses measurement to solve problems.</p>

Level 3

Prerequisite skill: compare and order two or more containers according to capacity (from holds the most to holds the least)

The student will be presented a real-life problem to determine whether one large container or several small containers of the same product is a better buy. The student will be presented with a large container and other small, identical containers all of which are empty. The total capacity of the combined small containers will equal the capacity of the large container. None of the containers will be labeled with units of capacity. Using a measuring cup, the large container will be filled. The student will determine the number of cups it took to fill the large container. Using a measuring cup, the small containers will be filled. The student will determine the number of cups it took to fill all of the small containers. The student will compare the number of cups the large container holds and the total number of cups the small containers hold. The price of the large container and the price of each small container will be given. The student will determine which is a better buy.

Predetermined Criteria

1. The student will determine the number of cups it took to fill the large container and the number of cups it took to fill all of the small containers.
2. The student will compare the number of cups the large container holds and the total number of cups the small containers hold.
3. The student will determine which is a better buy.

Process skill: use tools such as real objects, manipulatives, and technology to solve problems

Transition

Level 2

Prerequisite skill: compare two containers according to capacity (holds more, holds less, or holds the same)

The student will be presented a real-life problem in which he or she is serving equal portions for a specified number of people. The student will be presented three containers that have different shapes, different capacities, and similar sizes. The contents of each container will be distributed among uniform cups to establish the servings. The student will count the number of servings for each container. The student will identify the container that holds the most servings and the container that holds the least. The student will identify which container best meets the need to serve the specified number of people.

Predetermined Criteria

1. The student will count the number of servings for each container.
2. The student will identify the container that holds the most servings and the container that holds the least.
3. The student will identify which container best meets the need to serve the specified number of people.

Process skill: relate informal language to mathematical language and symbols

Transition

Mathematics Grade 5; Reporting Category 4 (5.10); Essence Statement: C

Level 1

Prerequisite skill: recognize how much can be placed within an object

The student will be presented a real-life problem in which he or she needs to find out which container holds more. The student will be presented two empty containers with significantly different capacities. The student will explore the empty containers. The student will participate in filling each container with the same substance or uniformly-sized items. The student will acknowledge the container that holds more.

Predetermined Criteria

1. The student will explore the empty containers.
2. The student will participate in filling each container.
3. The student will acknowledge the container that holds more.

Transition

STAAR Reporting Category 5 – Probability and Statistics: The student will demonstrate an understanding of probability and statistics.	
TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations	Essence of TEKS Knowledge & Skills Statement / STAAR-Tested Student Expectations
<p>(5.13) Probability and statistics. The student solves problems by collecting, organizing, displaying, and interpreting sets of data. The student is expected to</p> <ul style="list-style-type: none"> (A) use tables of related number pairs to make line graphs; Supporting Standard (B) describe characteristics of data presented in tables and graphs including median, mode, and range; Readiness Standard (C) graph a given set of data using an appropriate graphical representation such as a picture or line graph. Supporting Standard 	<p>Essence Statement D: Displays and solves problems using data.</p>

Level 3

Prerequisite skill: collect, organize, record, and display data in pictographs and bar graphs where each picture or cell might represent more than one piece of data

The class needs to determine the most profitable time during the school day to sell the same product. Given unorganized data from the sale of the product, the student will determine the number of products sold during three different times of the day. The student will generate a graph to display the data. The student will determine the most profitable time to sell a product during the school day.

Predetermined Criteria

1. The student will determine the number of products sold during three different times of the day.
2. The student will generate a graph to display the data.
3. The student will determine the most profitable time to sell a product during the school day.

Process skill: solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness

Transition

Mathematics Grade 5; Reporting Category 5 (5.13); Essence Statement: D

Level 2

Prerequisite skill: draw conclusions and answer questions based on picture graphs and bar-type graphs

The student will be presented a graph displaying the total number of a product sold during three different times of the school day. The student will identify the total number of the product sold for each time period. The student will identify the time of day in which the fewest number of the product was sold. The student will identify the time of day that was the most profitable for selling the product.

Predetermined Criteria

1. The student will identify the total number of the product sold for each time period.
2. The student will identify the time of day in which the fewest number of the product was sold.
3. The student will identify the time of day that was the most profitable for selling the product.

Process skill: justify his or her thinking using objects, words, pictures, numbers, and technology

Transition

Level 1

Prerequisite skill: construct graphs using real objects or pictures in order to answer questions

The student will be presented a real-life problem in which a particular item will be sold over a two-day period to find the most profitable day. The student will be presented a representation for money to be used as the title of a graph that the teacher and student will create. The student will participate in labeling the graph with representations for the two different days. The student will participate in placing an object on the graph representing each item that was sold each day. The student will acknowledge the category on the graph with more objects.

Predetermined Criteria

1. The student will participate in labeling the graph with representations for the two different days.
2. The student will participate in placing an object on the graph representing each item that was sold each day.
3. The student will acknowledge the category on the graph with more objects.