Tulare County
Office of Education

Jim Vidak, County Superintendent of Schools

Using SBAC Tools to Support Powerful Instruction

SBAC Math Handout

Smarter Balanced
Assessment Consortium

Grade 4

Grade 4 SBAC Math Assessment Snapshot

Unit	Claim 1: Concepts and Procedures 17-20 Total Questions -At least 7 CAT items will be DOK 2 or higher		Claim 2: Problem Solving	Claim 4: Modeling and Data Analysis	Claim 3: Communicating Reasoning 8-10 Questions -At least 2 CAT items will be DOK 3 or higher. -80% of Claim 3 comes from standards below.
			8-10 Total Questions -At least 2 CAT items will be DOK 3 or higher -80% of Claim 2 & 4 come from Standards below		
	Target A (Priority) **4.OA.A –** Use the four operations with whole numbers to solve problems. 4.OA.1, 2, 3	8-9	4.OA.A	4.OA.A	4.OA.3
	Target E (Priority) **4.NBT.B –** Use place value understanding and properties of operations to perform multi-digit arithmetic 4.NBT.4, 5, 6		4.NBT.B		4.NBT.5 4.NBT.6
	Target F (Priority) **4.NF.A –** Extend understanding of fraction equivalence and ordering 4.NF.1, 2		4.NF.A		4.NF.A 4.NF.1 4.NF.2
	Target G (Priority) **4.NF.B –** Build fractions from unit fractions by applying and extending previous under-standings of operations on whole numbers. 4.NF.3, 4	2-3	4.NF.B	4.NF.B	4.NF.3a, b, c 4.NF.4a, b
	Target D (Priority) **4.NBT.A –** Generalize place value understanding for multi-digit whole numbers. 4.NBT.1, 2, 3	1-2			4.NBT.A
	Target H (Priority) **4.NF.C –** Understand decimal notation for fractions, and compare decimal fractions. 4.NF.5, 6, 7	1	4.NF.C		(4.NF.C) 4.NF.7
	Target I (Supporting) **4.MD.A –** Solve problems involving measure-ment and conversion of measurements from a larger unit to a smaller unit. 4.MD.1, 2, 3	2-3	4.MD.A	4.MD.A	
	Target K (Supporting) **4.MD.C –** Geometric measurement: under-stand concepts of angle and measure angles. 4.MD.5, 6, 7		4.MD.C	4.MD.C	
	Target B (Supporting) **4.OA.B –** Gain familiarity with factors and multiples. 4.OA.4	1			
	Target C (Supporting) **4.OA.C –** Generate and analyze patterns. 4.OA.5				
	Target J (Supporting) **4.MD.B –** Represent and interpret data. 4.MD.4			4.MD.B	
	Target L (Supporting) **4.G.A –** Draw and identify lines and angles, and classify shapes by properties of their lines and angles. 4.G.1, 2, 3	1			

	Item	Claim (circle one)
A	Sarah is helping her dad make cookies for her class using a recipe they found online. Her dad asks, "Do you think one batch of cookies will be enough?" Select **all** of the information they need to answer the question. A. The amount of flour in the recipe. B. The number of cookies in one batch. C. The number of students in the class. D. The temperature of the oven for baking the cookies. E. The number of cookies you can fit onto a cookie sheet.	1 2 3 4
B	**Example Stem 1:** Enter the unknown number that makes the equation true. $26 \times 74 = (20 + 6) \times (\square + 4)$	1 2 3 4
C	Tina and Marco play a number game. Tina gives Marco a number and he does three computations. • He multiplies the number by 2. • He adds 7 to the answer. • Then, he subtracts 2 from that answer. What number should Tina give Marco so that the final answer is 37 ?	1 2 3 4
D	Click in the box that matches each division problem to the correct claim.	1 2 3 4

Claim	200 ÷ 5	777 ÷ 7	108 ÷ 9
When you divide a 3-digit number by a 1-digit number, the quotient can have **1 digit**.			
When you divide a 3-digit number by a 1-digit number, the quotient can have **2 digits**.			
When you divide a 3-digit number by a 1-digit number, the quotient can have **3 digits**.			

Mathematics

Item	DOK Circle one	Comments
#1	1 2 3 4	
#2	1 2 3 4	
#3	1 2 3 4	
#4	1 2 3 4	
#5	1 2 3 4	
#6	1 2 3 4	
#7	1 2 3 4	
#8	1 2 3 4	

Art Day!

You are helping your 4th grade class organize an Art Day.

There will be three stations:
- Painting
- Pottery
- Chalk Art

You have two tasks. You will help create the supply list and the schedule for Art Day.

Task 1: Supply List
You need to make sure there are enough supplies at each station for everyone to participate. You will use the following information to create a list of art supplies for your class.

- There are 24 students in your class.
- Each student needs –
  - 2 paint brushes for the Painting Station.
  - 3 pounds of clay for the Pottery Station.
  - 5 pieces of chalk for the Chalk Art Station.

Task 2: Schedule
You also need to help plan the schedule for Art Day using the following information.

- The day starts at 9:00 a.m. and ends at 2:00 p.m.
- Your entire class will rotate through the three stations together.
- The Break has to be at least 10 minutes.
- The Break and Lunch together total 1 hour.
- The three stations (Painting, Pottery, and Chalk Art) do **not** need to be the same amount of time, but each one has to be 30 minutes or longer.

(1) According to the supply list, how many paint brushes are needed for 24 students?

2 According to the supply list, how many pounds of clay are needed for 24 students?

3 You need 120 pieces of chalk for Art Day. Your teacher has 6 boxes of chalk. Each box has 18 pieces of chalk. Is this enough chalk for Art Day?

Explain the steps you used to figure this out.

4 Your next task is to help plan the schedule for Art Day using the information from **Task 2: Schedule.**

Create a schedule for your class to follow on Art Day. You must follow the order given in the table.

Art Day Schedule*

Activity	Start Time	End Time
Painting	9:00 a.m.	
Break		
Pottery		
Lunch		
Chalk Art		2:00 p.m.

*Times must be given using a 12-hour clock.

5 When the class went to the Painting Station at 9:00 a.m., the container of paint was completely full. After 6 of the 24 students got their share of paint, the paint level had dropped to the level shown in the following picture.

Paint Level

Paint Level
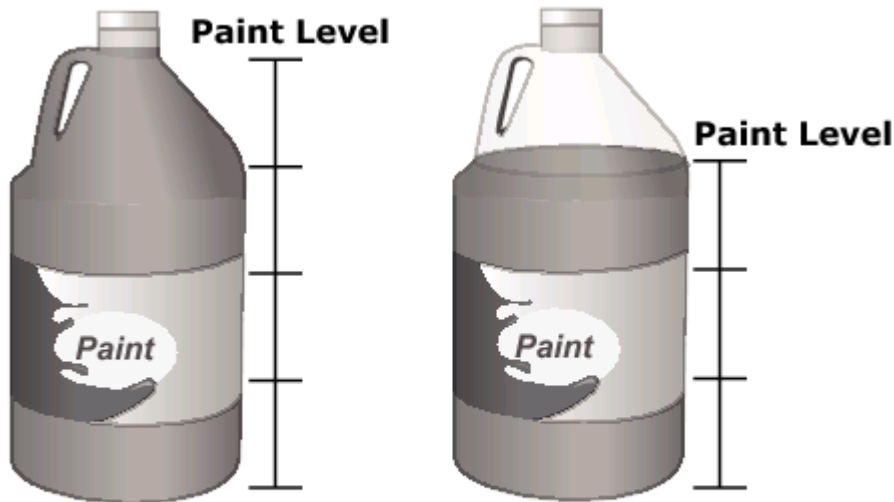
Paint

Paint

At 9:00 a.m. paint container is full.

After 6 students got their share of paint, the level is here.

Katie thinks there is not enough paint for the rest of the students.

Do you agree with Katie? Explain why or why not. Use the information shown in your explanation.

1 According to the supply list, how many paint brushes are needed for 24 students?

Mathematics Interim Assessment Blocks

Grade 3	Grade 4	Grade 5
Operations and Algebraic Thinking	Operations and Algebraic Thinking	Operations and Algebraic Thinking
Number and Operations – Fractions	Number and Operations – Fractions	Number and Operations – Fractions
Measurement and Data	Measurement and Data	Measurement and Data
Number and Operations in Base Ten	Number and Operations in Base Ten	Number and Operations in Base Ten
Geometry*	Geometry	Geometry
Mathematics Performance Task	Mathematics Performance Task	Mathematics Performance Task

Grade 6	Grade 7	Grade 8
Ratios and Proportional Relationships	Ratio and Proportional Relationships	Expressions & Equations I
The Number System	The Number System	Expressions & Equations II (with Prob/Stat)
Expressions and Equations	Expressions and Equations	The Number System*
Geometry	Geometry	Functions
Statistics and Probability	Statistics and Probability	Geometry
Mathematics Performance Task	Mathematics Performance Task	Mathematics Performance Task

High School	
Algebra and Functions I - Linear Functions, Equations, and Inequalities	Geometry Congruence*
Algebra and Functions II - Quadratic Functions, Equations, and Inequalities	Geometry Measurement and Modeling*
Geometry and Right Triangle Trigonometry	Interpreting Functions*
Statistics and Probability	Number and Quantity*
Seeing Structure in Expressions/Polynomial Expressions*	Mathematics Performance Task

* IAB is new for 2017–18

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