



Battle Creek Area Mathematics and Science Center Summative Assessment - End of Unit Exam

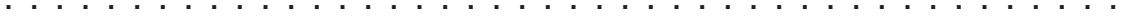
Attached is the Summative Assessment for the Battle Creek Area Mathematics and Science Center Science Unit, *Measuring Matters*. This assessment includes a number of multiple-choice questions and several items from the unit's Student Journal. Summative assessment of targeted concepts and skills provides feedback to the individual student and the teacher on conceptual understanding, demonstration of achievement of selected content, and determination of readiness for refinement and application of new knowledge and skills. The inclusion of the Student Journal items provides the opportunity to determine the level of understanding and ability of key knowledge and skills targeted in this unit. The Student Journal items evaluate individual student learning and the effectiveness of instruction. Rubrics are included in the Summative Assessment to ensure consistent scoring of the items. All components of this assessment provide multiple opportunities to assess student understanding of each science content expectation addressed in the unit.

The BCAMSC Summative Assessments are in draft form and may change based on student performance and teacher feedback. The BCAMSC Outreach Staff will use data collected from participating districts to make adjustments for the following school year.

If you have any questions or suggestions regarding the Summative Assessment, please direct your calls to Nancy Karre at (269) 965-9584 or email: nancy@bcamsc.org.



A S S E S S M E N T



Name _____



Date _____

.....

1. Choose the **BEST** tool to measure the length of a room.
 - a. measuring tape
 - b. balance
 - c. ruler

2. Choose the **BEST** unit of measure to use when measuring the length of a room.
 - a. centimeters
 - b. liters
 - c. meters

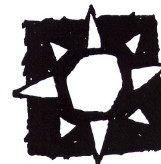
3. Choose the **BEST** tool to measure the volume of water.
 - a. measuring tape
 - b. measuring cup
 - c. spring scale

4. Sue and Bob wanted to find out if the tennis ball was heavier or lighter than the golf ball. What tool should Sue and Bob use to answer their question?
 - a. measuring cup with water
 - b. measuring tape
 - c. balance



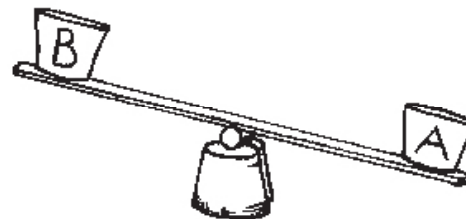
Measuring Matters (cont.)

5. Sue and Bob were comparing the properties of the tennis ball and the golf ball. Choose the list of properties they should use in their investigation.
- a. liters, milliliters, grams, and ounces
 - b. color, size, texture, shape, hardness, bounce
 - c. length, width, diameter, and area
6. Choose the example of a mixture.
- a. water
 - b. ice cubes
 - c. macaroni and cheese
7. Choose the **BEST** tool for separating a mixture of rice and beans.
- a. forceps
 - b. sieve
 - c. solar still
8. Jackson wanted to separate salt that had dissolved in a glass of water. What is the **BEST** method for Jackson to use?
- a. Make a filter out of a coffee filter.
 - b. Let the water evaporate into the air.
 - c. Use forceps to pick out the salt pieces.



9. Circle the correct answer.

- a. Cup A is lighter than Cup B.
- b. Cup B is lighter than cup A.
- c. Cups A and B are the same.



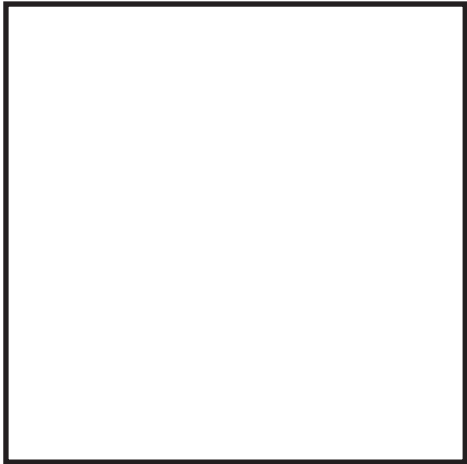
10. Use the data table below as **evidence** and write a **conclusion** that explains which object traveled the farthest down the ramp. (Include the numbers from the data table in your answer.)

Object	Write if the object rolled or slid	Distance	Time
wooden cube	slid	39 cm.	3 seconds
small magnifier	slid	42 cm.	2.5 seconds
jumping frog	slid	43 cm.	2.5 seconds
marble	rolled	156 cm.	1.2 seconds
penny	slid	41 cm.	2.5 seconds
toy car	rolled	121 cm.	2 seconds



Measuring Matters (cont.)

11. How many centimeters long is this rectangle?



_____ centimeters

12. How many centimeters wide is this rectangle?

_____ centimeters

13. What can you say about the length and the width of the rectangle?



.....

Question #1: Choose the **BEST** tool to measure the length of a room. (P.PM.02.13)

Answer: a (1 point)

Question #2: Choose the **BEST** unit of measure to use when measuring the length of a room.
(P.PM.02.13)

Answer: c (1 point)

Question #3: Choose the **BEST** tool to measure the volume of water. (P.PM.02.15)

Answer: b (1 point)

Question #4: Sue and Bob wanted to find out if the tennis ball was heavier or lighter than the golf ball.
What tool should Sue and Bob use to answer their question? (P.PM.02.15)

Answer: c (1 point)

Question #5: Sue and Bob were comparing the properties of the tennis ball and the golf ball. Choose the
list of properties they should use in their investigation. (P.PM.02.12)

Answer: b (1 point)

Question #6: Choose the example of a mixture. (P.PM.02.12)

Answer: c (1 point)

Question #7: Choose the **BEST** tool for separating a mixture of rice and beans. (S.IP.02.14, S.IA.04.14)

Answer: a (1 point)

Question #8: Jackson wanted to separate salt that had dissolved in a glass of water. What is the **BEST**
method for Jackson to use? (S.IA.02.14, S.RS.02.11)

Answer: b (1 point)

Question #9: Circle the correct answer.

Answer: b (1 point)

Question #10 - Activity #3, Journal Entry Question #3: Use the data table below as evidence and write a



Measuring Matters Answer Key

conclusion that explains which object traveled the farthest down the ramp. (Include the number from your data in your answer.) (P.PM.02.13, S.IP.02.15)

Elements

- a. Response states the object that traveled the farthest down the ramp.
- b. Response includes data (evidence) from the investigation that supports claim (a).

Scoring (2 points)

- 2 - Response includes both elements
- 1 - Response includes one element
- 0 - No response, no elements, can't read the answer

Question #11 - Activity #5, Journal Entry Question #1: *How many centimeters long is this rectangle?* (P.PM.02.13)

Answer: 6 or 6.5 cm long (1 point)

Question #12 - Activity #5, Journal Entry Question #2: *How many centimeters wide is this rectangle?* (P.PM.02.13)

Answer: 6 or 6.5 cm wide (1 point)

Question #13 - Activity #5, Journal Entry Question #3: *What can you say about the length and width of the rectangle?* (S.IA.02.13, S.IP.02.14, S.IP.02.15)

Element

- a. The length and width are the same.

Scoring (1 point)

- 1 - Response includes one element
- 0 - No response, no element, can't read the answer