



Coherence and Alignment Among Science Curriculum, Instruction, and Assessment (CASCIA) Project

Grade 5 Unit 1: Matter and Its Interactions

Task 3 Prompt 2 Scored and Annotated Anchor Set

August 2024

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CASCIA Grade 5 EOU Assessment 1 Task 3: Change or Not?

Prompt 2 Score Point 4

Prompt 2 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2	No aspect of the response is correct	Response includes one (1) of the four (4) aspects	Response includes two (2) of the four (4) aspects	Response includes three (3) of the four (4) aspects	Response includes the following aspects: Part A - Completes bar graph to show Solution B as 48 grams AND Part B - Circles “YES” - Describes the combined mass of solutions A and B as 101 grams and the total mass of Jar C as 101 grams - Describes that mass is conserved or remains the same after mixing

Score Point 4 (4/4 aspects met)

- Part A
 - Completes the bar graph correctly with 48 grams in Jar B.
- Part B
 - Circles “YES” to agree with Mr. Carter’s statement.
 - Describes the combined masses of Jar A and Jar B as 53 and 48 grams **and** the mass of Jar C as 101 grams.
 - Describes that mass is conserved or remains the same (i.e., The student response includes “. . . no mass changed all of it stayed in the jar.”).

Part A.
Graph 1 shows the total mass of the materials in Jar A.

Use the data in **Table 3** to complete **Graph 1** to show the total mass of the solution in Jar B.

Graph 1. Mass of the Solution in Jar A and the Mass of the Solution in Jar B

Part B.
Mr. Carter tells the students that the total mass of the combined solutions in Jar C is 101 grams. Then, Mr. Carter writes the following sentence on the board:

When a new substance is formed by mixing different materials, the total mass of the new substance is equal to the combined masses of the original materials.

Do you agree with Mr. Carter’s description of the results of the investigation?

Circle your answer: ☒ YES ☐ NO

Use the information from **Graph 1** and the total mass of Jar C to support your answer to Part B.

Graph 1 shows I added Jar A at 53 grams & Jar B at 48 grams which gives me 101 grams.

The total mass of the solution of Jar C is 101 grams.

So, when the solutions were mixed and a change occurred, No mass changed all of it stayed in the jar.

CASCIA Grade 5 EOU Assessment 1 Task 3: Change or Not?

Prompt 2 Score Point 3

Prompt 2 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2	No aspect of the response is correct	Response includes one (1) of the four (4) aspects	Response includes two (2) of the four (4) aspects	Response includes three (3) of the four (4) aspects	Response includes the following aspects: Part A - Completes bar graph to show Solution B as 48 grams AND Part B - Circles “YES” - Describes the combined mass of solutions A and B as 101 grams and the total mass of Jar C as 101 grams - Describes that mass is conserved or remains the same after mixing

Score Point 3 (3/4 aspects met)

- Part A
 - Completes the bar graph correctly with 48 grams in Jar B.
- Part B
 - Circles “YES” to agree with Mr. Carter’s statement.
 - Describes Jar A and Jar B with the correct mass in grams **and** that the total is 101 grams when mixed together.
 - Does **NOT** describe that the mass is conserved or remains the same (i.e., “. . . that the masses changed.”).

Part A.
Graph 1 shows the total mass of the materials in Jar A.
Use the data in Table 3 to complete Graph 1 to show the total mass of the solution in Jar B.

Graph 1. Mass of the Solution in Jar A and the Mass of the Solution in Jar B

Part B.
Mr. Carter tells the students that the total mass of the combined solutions in Jar C is 101 grams. Then, Mr. Carter writes the following sentence on the board:

When a new substance is formed by mixing different materials, the total mass of the new substance is equal to the combined masses of the original materials.

Do you agree with Mr. Carter's description of the results of the investigation?

Circle your answer. ☒ YES ☐ NO

Use the information from Graph 1 and the total mass of Jar C to support your answer to Part B.

Graph 1 shows that Jar B is 48 g and Jar A is 53 g and if you mix 48 and 53 g will not be the same mass.

The total mass of the solution of Jar C is 101.

So, when the solutions were mixed and a change occurred, that the masses changed

CASCIA Grade 5 EOU Assessment 1 Task 3: Change or Not?

Prompt 2 Score Point 2

Prompt 2 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2	No aspect of the response is correct	Response includes one (1) of the four (4) aspects	Response includes two (2) of the four (4) aspects	Response includes three (3) of the four (4) aspects	Response includes the following aspects: Part A - Completes bar graph to show Solution B as 48 grams AND Part B - Circles “YES” - Describes the combined mass of solutions A and B as 101 grams <u>and</u> the total mass of Jar C as 101 grams - Describes that mass is conserved or remains the same after mixing

Score Point 2 (2/4 aspects met)

- Part A
 - Completes the bar graph correctly with 48 grams in Jar B.
- Part B
 - Circles “YES” to agree with Mr. Carter’s statement.
 - Does **NOT** describe the mass of the jars, only describes the total mass as 101 grams.
 - Does **NOT** describe that the mass is conserved or remains the same.

Part A.

Graph 1 shows the total mass of the materials in Jar A.

Use the data in Table 3 to complete Graph 1 to show the total mass of the solution in Jar B.

Graph 1. Mass of the Solution in Jar A and the Mass of the Solution in Jar B

Part B.

Mr. Carter tells the students that the total mass of the combined solutions in Jar C is 101 grams. Then, Mr. Carter writes the following sentence on the board:

When a new substance is formed by mixing different materials, the total mass of the new substance is equal to the combined masses of the original materials.

Do you agree with Mr. Carter's description of the results of the investigation?

Circle your answer. ☒ YES ☐ NO

Use the information from Graph 1 and the total mass of Jar C to support your answer to Part B.

Graph 1 shows the mass of the jars

The total mass of the solution of Jar C is 101 grams.

So, when the solutions were mixed and a change occurred, and a white solid was created

CASCIA Grade 5 EOU Assessment 1 Task 3: Change or Not?

Prompt 2 Score Point 1

Prompt 2 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2	No aspect of the response is correct	Response includes one (1) of the four (4) aspects	Response includes two (2) of the four (4) aspects	Response includes three (3) of the four (4) aspects	Response includes the following aspects: Part A - Completes bar graph to show Solution B as 48 grams AND Part B - Circles “YES” - Describes the combined mass of solutions A and B as 101 grams and the total mass of Jar C as 101 grams - Describes that mass is conserved or remains the same after mixing

Score Point 1 (1/4 aspects met)

- Part A
 - Does **NOT** complete the bar graph correctly to show 48 grams.
- Part B
 - Circles “YES” to agree with Mr. Carter’s statement.
 - Does **NOT** describe the mass in Jars A and B as 48 and 53 grams **and** does **NOT** describe the total mass of Jar C as 101 grams (i.e., “48.”).
 - Does **NOT** describe that the mass is conserved or remains the same (i.e., The student response includes “. . . it lost mass inside the jar.”).

Part A.

Graph 1 shows the total mass of the materials in Jar A.

Use the data in Table 3 to complete Graph 1 to show the total mass of the solution in Jar B.

Graph 1. Mass of the Solution in Jar A and the Mass of the Solution in Jar B

Part B.

Mr. Carter tells the students that the total mass of the combined solutions in Jar C is 101 grams. Then, Mr. Carter writes the following sentence on the board:

When a new substance is formed by mixing different materials, the total mass of the new substance is equal to the combined masses of the original materials.

Do you agree with Mr. Carter’s description of the results of the investigation?

Circle your answer. ☒ YES ☐ NO

Use the information from Graph 1 and the total mass of Jar C to support your answer to Part B.

Graph 1 shows the mass in the jar.

The total mass of the solution of Jar C is 48.

So, when the solutions were mixed and a change occurred, it lost mass in side the jar.

CASCIA Grade 5 EOU Assessment 1 Task 3: Change or Not?

Prompt 2 Score Point 0

Prompt 2 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2	No aspect of the response is correct	Response includes one (1) of the four (4) aspects	Response includes two (2) of the four (4) aspects	Response includes three (3) of the four (4) aspects	Response includes the following aspects: Part A - Completes bar graph to show Solution B as 48 grams AND Part B - Circles “YES” - Describes the combined mass of solutions A and B as 101 grams <u>and</u> the total mass of Jar C as 101 grams - Describes that mass is conserved or remains the same after mixing

Score Point 0 (0/4 aspects met)

- Part A
 - Does **NOT** complete the bar graph correctly.
- Part B
 - Does **NOT** circle “YES” to agree with Mr. Carter’s statement.
 - Does **NOT** describe the mass in Jars A and B as 48 and 53 grams **and** does **NOT** describe the total mass of Jar C as 101 grams.
 - Does **NOT** describe that mass is conserved or remains the same after mixing (i.e., The student response includes “. . . substance was formed.”).

Part A.
Graph 1 shows the total mass of the materials in Jar A.

Use the data in Table 3 to complete Graph 1 to show the total mass of the solution in Jar B.

Graph 1. Mass of the Solution in Jar A and the Mass of the Solution in Jar B

Part B.
Mr. Carter tells the students that the total mass of the combined solutions in Jar C is 101 grams. Then, Mr. Carter writes the following sentence on the board:

When a new substance is formed by mixing different materials, the total mass of the new substance is equal to the combined masses of the original materials.

Do you agree with Mr. Carter’s description of the results of the investigation?

Circle your answer. YES ☒ NO ☐

Use the information from Graph 1 and the total mass of Jar C to support your answer to Part B.

Graph 1 shows that it is 48g

The total mass of the solution of Jar C is it is 36

So, when the solutions were mixed and a change occurred, substance was formed