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

Grade 8 Unit 1: Forces and Energy

Task 1 Prompt 1 Part B Scored and Annotated Anchor Set

July 2024

Grade 8 Unit 1: Forces and Energy, Task 1 Prompt 1 Part B Scored and Annotated Anchor Set was developed with funding from the U.S. Department of Education under the Competitive Grants for State Assessments Program CFDA 84.368A. The contents of this paper do not represent the policy of the U.S. Department of Education, and no assumption of endorsement by the Federal government should be made.

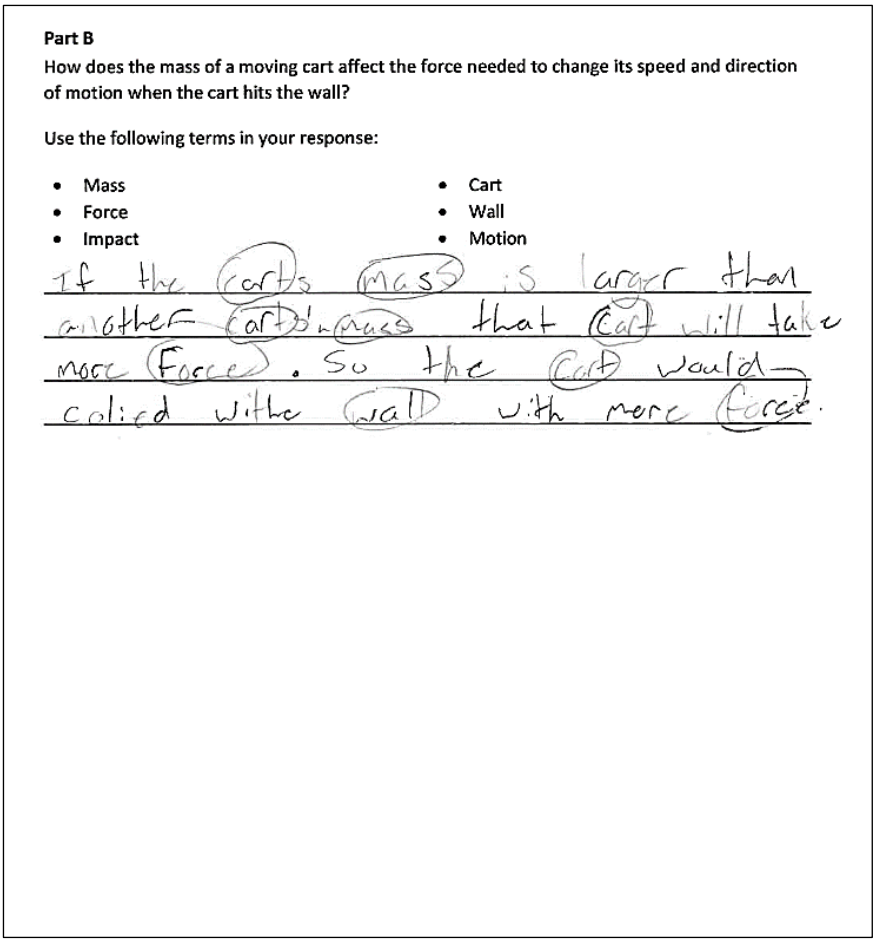
CASCIA Grade 8 EOU Assessment 1 Task 1: Storing Grocery Carts
Prompt 1 Part B Score Point 2

Prompt 1 Part B Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 1 Part B.	No aspect of the response is correct	Response includes **one (1)** of the **two (2)** key aspects	Response includes the following key aspects: • The greater the mass of the cart, the greater the force needed to make a change in its speed and direction. • A cart with more mass hits the wall with more force upon impact	NA	NA

Score Point 2 (2/2 aspects met)

- Part B
  - Includes that the greater the mass of the cart, the greater the force needed to make a change in its speed and direction.
  - Includes that a cart with more mass hits the wall with more force upon impact.



Part B

How does the mass of a moving cart affect the force needed to change its speed and direction of motion when the cart hits the wall?

Use the following terms in your response:

- Mass
- Force
- Impact
- Cart
- Wall
- Motion

If the carts mass is larger than another carts mass that cart will take more Force. So the cart would collied with the wall with more force.

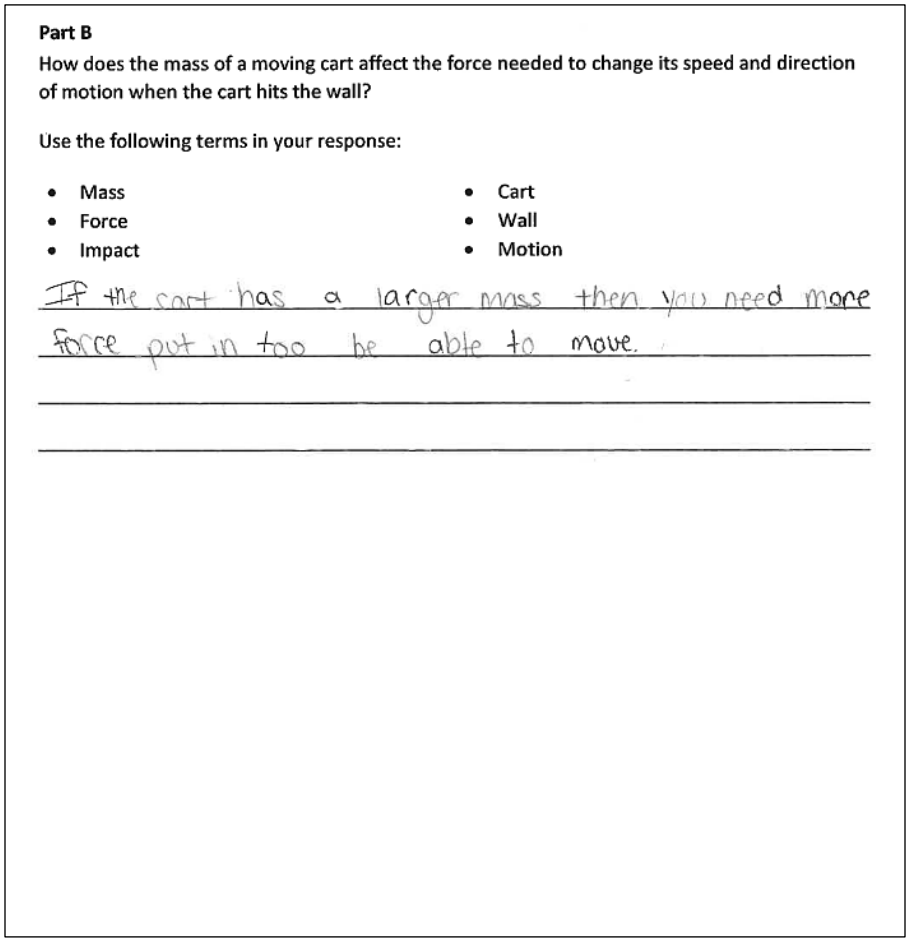
CASCIA Grade 8 EOU Assessment 1 Task 1: Storing Grocery Carts
Prompt 1 Part B Score Point 1

Prompt 1 Part B Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 1 Part B.	No aspect of the response is correct	Response includes **one (1)** of the **two (2)** key aspects	Response includes the following key aspects: • The greater the mass of the cart, the greater the force needed to make a change in its speed and direction. • A cart with more mass hits the wall with more force upon impact	NA	NA

Score Point 1 (1/2 aspects met)

- Part B
  - Does include that the greater the mass of the cart, the greater the force needed to make a change in its speed and direction.
  - Does **NOT** include that a cart with more mass hits the wall with more force upon impact.



Part B

How does the mass of a moving cart affect the force needed to change its speed and direction of motion when the cart hits the wall?

Use the following terms in your response:

- Mass
- Force
- Impact
- Cart
- Wall
- Motion

If the cart has a larger mass then you need more force put in too be able to move.

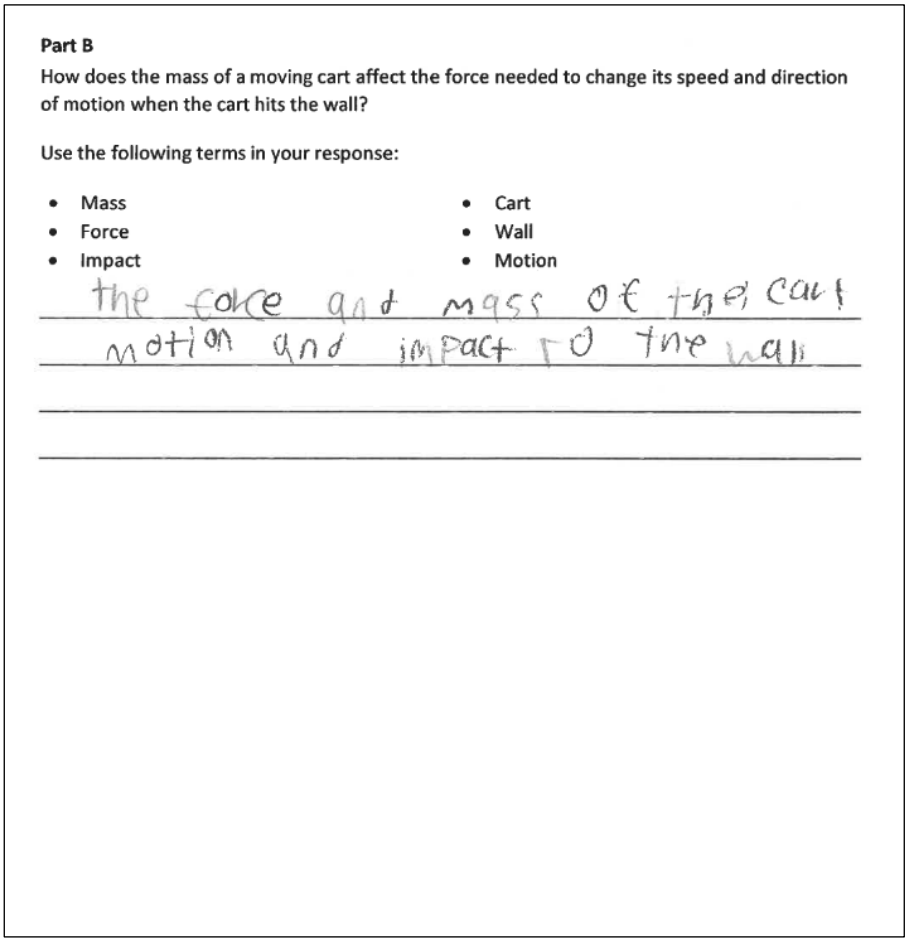
CASCIA Grade 8 EOU Assessment 1 Task 1: Storing Grocery Carts
Prompt 1 Part B Score Point 0

Prompt 1 Part B Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 1 Part B.	No aspect of the response is correct	Response includes **one (1)** of the **two (2)** key aspects	Response includes the following key aspects: • The greater the mass of the cart, the greater the force needed to make a change in its speed and direction. • A cart with more mass hits the wall with more force upon impact	NA	NA

Score Point 0 (0/2 aspects met)

- Part B
  - Does **NOT** include that the greater the mass of the cart, the greater the force needed to make a change in its speed and direction.
  - Does **NOT** include that a cart with more mass hits the wall with more force upon impact (i.e., The student does use all the terms in the response but does not answer the question.).



Part B

How does the mass of a moving cart affect the force needed to change its speed and direction of motion when the cart hits the wall?

Use the following terms in your response:

- Mass
- Force
- Impact
- Cart
- Wall
- Motion

the force and mass of the cart motion and impact to the wall