



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

Grade 8 Unit 2: Gravity and Motion of Objects in the Solar System

Task 1 Prompt 3 Part C Scored and Annotated Anchor Set

March 2025

Grade 8 Unit 2: Gravity and Motion of Objects in the Solar System, Task 1 Prompt 3 Part C 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.

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CASCIA Grade 8 EOU Assessment 2 Task 1: Orbiting Around

Prompt 3 Part C Score Point 2

Prompt 3 Part C Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 3 Part C.	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: - Describes the inverse relationship between the size and number of asteroids - Supports answer with data from Figure 3	NA	NA

Score Point 2 (2/2 aspects met)

- Part C
 - Describes the inverse relationship between the size and number of asteroids (i.e., The student response indicates there are more small asteroids than “big ones” and supports the answer with an example.).
 - Supports the answer with data from Figure 3.

Describe the relationship between asteroid diameters and the number of asteroids in Earth's solar system shown in **Figure 3**. Use information from **Figure 3** to support your response.

There are more small asteroids than big ones. For example, on the graph there is only 1 asteroid that is 1000 km wide while there are 10^8 asteroids that are 0.1 km wide.

CASCIA Grade 8 EOU Assessment 2 Task 1: Orbiting Around

Prompt 3 Part C Score Point 1

Prompt 3 Part C Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 3 Part C.	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: - Describes the inverse relationship between the size and number of asteroids - Supports answer with data from Figure 3	NA	NA

Score Point 1 (1/2 aspects met)

- Part C
 - Describes the inverse relationship between the size and number of asteroids (i.e., The student response indicates that the larger the size of the asteroid, the fewer asteroids.).
 - Does **NOT** support the answer with data from Figure 3.

Describe the relationship between asteroid diameters and the number of asteroids in Earth's solar system shown in **Figure 3**. Use information from **Figure 3** to support your response.

The relationship represented shows that the larger the asteroid the less there will be & the smaller the diameter the more there will be.

CASCIA Grade 8 EOU Assessment 2 Task 1: Orbiting Around

Prompt 3 Part C Score Point 0

Prompt 3 Part C Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 3 Part C.	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: - Describes the inverse relationship between the size and number of asteroids - Supports answer with data from Figure 3	NA	NA

Score Point 0 (0/2 aspects met)

- Part C
 - Does **NOT** describe the inverse relationship between the size and number of asteroids (i.e., The student response incorrectly indicates that the larger the size of the asteroid, the more asteroids.).
 - Does **NOT** support the answer with data from Figure 3.

Describe the relationship between asteroid diameters and the number of asteroids in Earth's solar system shown in **Figure 3**. Use information from **Figure 3** to support your response.

The relationship is as the diameter goes up we start getting more asteroids.