



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

Grade 5 Unit 4: Earth and its Gravitational Force and Motion

Task 2 Prompt 3 Scored and Annotated Anchor Set

May 2025

Grade 5 Unit 4: Earth and its Gravitational Force and Motion, Task 2 Prompt 3 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 5 EOU Assessment 4 Task 2: Meet the Beetles!

Prompt 3 Score Point 3

Prompt 3 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 3	No aspect of the response is correct	Response includes one (1) of the three (3) aspects	Response includes two (2) of the three (3) aspects	Response includes the following aspects: - The beetles use positions of the stars in the night sky to roll a dung ball in a straight path at night OR beetles use constellations to track their own movements at night - Evidence includes cloudy conditions when the effectiveness of dung rolling is decreased - Evidence includes moonless conditions when the effectiveness of dung rolling is increased	NA

Score Point 3 (3/3 aspects met)

- Includes the beetles using positions of the stars in the night sky to roll a dung ball in a straight path at night.
- Includes evidence of cloudy conditions when the effectiveness of dung rolling is decreased.
- Includes evidence of moonless conditions when the effectiveness of dung rolling is increased.

Describe how dung beetles are able to roll a dung ball in a straight path at night. Use **two** pieces of evidence from **Table 2** to support your answer.

When the night is moonless with many visible stars, they can see the stars to navigate. When the sky is clear with many visible stars, they can also use the star to navigate, but when the sky is cloudy and they can't see the stars they are able to know where they are.

CASCIA Grade 5 EOU Assessment 4 Task 2: Meet the Beetles!

Prompt 3 Score Point 2

Prompt 3 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 3	No aspect of the response is correct	Response includes one (1) of the three (3) aspects	Response includes two (2) of the three (3) aspects	Response includes the following aspects: - The beetles use positions of the stars in the night sky to roll a dung ball in a straight path at night OR beetles use constellations to track their own movements at night - Evidence includes cloudy conditions when the effectiveness of dung rolling is decreased - Evidence includes moonless conditions when the effectiveness of dung rolling is increased	NA

Score Point 2 (2/3 aspects met)

- Includes the beetles using positions of the stars in the night sky to roll a dung ball in a straight path at night.
- Includes evidence of cloudy conditions when the effectiveness of dung rolling is decreased.
- Does **NOT** include evidence of moonless conditions when the effectiveness of dung rolling is increased.

Describe how dung beetles are able to roll a dung ball in a straight path at night. Use **two** pieces of evidence from Table 2 to support your answer.

When the sky is clear with many stars the dung beetle can find its way better. But when the sky is filled with clouds its harder for a dung beetle to find its way.

CASCIA Grade 5 EOU Assessment 4 Task 2: Meet the Beetles!

Prompt 3 Score Point 1

Prompt 3 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 3	No aspect of the response is correct	Response includes one (1) of the three (3) aspects	Response includes two (2) of the three (3) aspects	Response includes the following aspects: - The beetles use positions of the stars in the night sky to roll a dung ball in a straight path at night OR beetles use constellations to track their own movements at night - Evidence includes cloudy conditions when the effectiveness of dung rolling is decreased - Evidence includes moonless conditions when the effectiveness of dung rolling is increased	NA

Score Point 1 (1/3 aspects met)

- Includes the beetles using positions of the stars in the night sky to roll a dung ball in a straight path at night **OR** beetles using constellations to track their own movements at night.
- Does **NOT** include evidence of cloudy conditions when the effectiveness of dung rolling is decreased.
- Does **NOT** include evidence of moonless conditions when the effectiveness of dung rolling is increased.

Describe how dung beetles are able to roll a dung ball in a straight path at night. Use **two** pieces of evidence from **Table 2** to support your answer.

Dung beetles are able to roll their dung balls at night because the stars are in a pattern so it knows where to go when rolling their dung balls. Just like the big dipper makes a pattern. That is how dung beetles roll their dung balls in the night sky.

CASCIA Grade 5 EOU Assessment 4 Task 2: Meet the Beetles!

Prompt 3 Score Point 0

Prompt 3 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 3	No aspect of the response is correct	Response includes one (1) of the three (3) aspects	Response includes two (2) of the three (3) aspects	Response includes the following aspects: - The beetles use positions of the stars in the night sky to roll a dung ball in a straight path at night OR beetles use constellations to track their own movements at night - Evidence includes cloudy conditions when the effectiveness of dung rolling is decreased - Evidence includes moonless conditions when the effectiveness of dung rolling is increased	NA

Score Point 0 (0/3 aspects met)

- Does **NOT** include the beetles using positions of the stars in the night sky to roll a dung ball in a straight path at night **OR** beetles using constellations to track their own movements at night.
- Does **NOT** include evidence of cloudy conditions when the effectiveness of dung rolling is decreased.
- Does **NOT** include evidence of moonless conditions when the effectiveness of dung rolling is increased.

Describe how dung beetles are able to roll a dung ball in a straight path at night. Use **two** pieces of evidence from **Table 2** to support your answer.

they walk in a straight
path when there is not
a lot of light