



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

Grade 5 Unit 2: Matter and Energy in Organisms and Ecosystems

Task 3 Prompt 3 Scored and Annotated Anchor Sets

April 2025

Grade 5 Unit 2: Matter and Energy in Organisms and Ecosystems, Task 3 Prompt 3 Scored and Annotated Anchor Sets 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 2 Task 3: Cycling Through a System

Prompt 3 Score Point 4

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	Explanation includes one (1) of the four (4) aspects	Explanation includes two (2) of the four (4) aspects	Explanation includes three (3) of the four (4) aspects	Explanation includes the following aspects: <ul style="list-style-type: none"> • The snake will eat the small animals so the population of small animals will decrease • There will be fewer small animals for hawks and owls to eat, so hawks and owls will reduce in population (or will change what they eat) • Fewer small animals that eat grass means more grass • Summarizes the impact on the balance of the ecosystem

Score Point 4 (4/4 aspects met)

- Explains that the snake eating small animals will decrease their population.
- Explains that fewer small animals will reduce the population of hawks and owls because they have less to eat.
- Explains that fewer small animals that eat grass means more grass.
- Summarizes the impact on the balance of the ecosystem (i.e., The student response states, "... the balance of it will go apart.").

Explain the effects of an invasive species like pythons on the balance of a local forest ecosystem. In your explanation, be sure to:

- Describe **how and why** the populations of small mammals are affected.
- Predict what will happen to **other animals** in the ecosystem such as owls or hawks and why this will happen.
- Predict what will happen to the **plants** in the ecosystem and why this will happen.

If the python goes into the forest ecosystem, the balance of it will go apart. The small mammals will get eaten. Then the large birds will starve because there is no food. Lastly the plants will grow out of control because there is nothing eating it.

CASCIA Grade 5 EOU Assessment 2 Task 3: Cycling Through a System

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	Explanation includes one (1) of the four (4) aspects	Explanation includes two (2) of the four (4) aspects	Explanation includes three (3) of the four (4) aspects	Explanation includes the following aspects: <ul style="list-style-type: none"> The snake will eat the small animals so the population of small animals will decrease There will be fewer small animals for hawks and owls to eat, so hawks and owls will reduce in population (or will change what they eat) Fewer small animals that eat grass means more grass Summarizes the impact on the balance of the ecosystem

Score Point 3 (3/4 aspects met)

- Explains that the snake eating small animals will decrease their population.
- Explains how fewer small animals for hawks and owls to eat will reduce their population.
- Does **NOT** correctly explain how fewer small animals that eat grass means more grass.
- Summarizes the impact on the balance of the ecosystem (i.e., The student response states, "The food chain would be very messed up . . .").

Explain the effects of an invasive species like pythons on the balance of a local forest ecosystem. In your explanation, be sure to:

- Describe **how and why** the populations of small mammals are affected.
- Predict what will happen to **other animals** in the ecosystem such as owls or hawks **and why** this will happen.
- Predict what will happen to the **plants** in the ecosystem **and why** this will happen.

If pythons started eating little mammals there wouldn't be very many little mammals. Hawks and owls would start to die off because hawks and owls eat little mammals. The food chain would be very messed up and plants would get messed up because when little animals die decomposers would poop them out and plants use their nutrients. There would be no little animals.

CASCIA Grade 5 EOU Assessment 2 Task 3: Cycling Through a System

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	Explanation includes one (1) of the four (4) aspects	Explanation includes two (2) of the four (4) aspects	Explanation includes three (3) of the four (4) aspects	Explanation includes the following aspects: <ul style="list-style-type: none"> The snake will eat the small animals so the population of small animals will decrease There will be fewer small animals for hawks and owls to eat, so hawks and owls will reduce in population (or will change what they eat) Fewer small animals that eat grass means more grass Summarizes the impact on the balance of the ecosystem

Score Point 2 (2/4 aspects met)

- Explains that the snake eating small animals will decrease their population.
- Explains how fewer small animals for hawks and owls to eat will reduce their population (or will change what they eat).
- Does **NOT** correctly explain how fewer small animals that eat grass means more grass.
- Does **NOT** summarize the impact on the balance of the ecosystem.

Explain the effects of an invasive species like pythons on the balance of a local forest ecosystem. In your explanation, be sure to:

- Describe how and why the populations of small mammals are affected.
- Predict what will happen to other animals in the ecosystem such as owls or hawks and why this will happen.
- Predict what will happen to the plants in the ecosystem and why this will happen.

That + the small mammal population will decrease then the owls and hawks will not have anything to eat then the plants will not be eaten so then the plants will die.

CASCIA Grade 5 EOU Assessment 2 Task 3: Cycling Through a System

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	Explanation includes one (1) of the four (4) aspects	Explanation includes two (2) of the four (4) aspects	Explanation includes three (3) of the four (4) aspects	Explanation includes the following aspects: <ul style="list-style-type: none"> The snake will eat the small animals so the population of small animals will decrease There will be fewer small animals for hawks and owls to eat, so hawks and owls will reduce in population (or will change what they eat) Fewer small animals that eat grass means more grass Summarizes the impact on the balance of the ecosystem

Score Point 1 (1/4 aspects met)

- Does explain that the snake eating small animals will decrease their population.
- Does **NOT** correctly explain how fewer small animals for hawks and owls to eat will reduce their population (or will change what they eat).
- Does **NOT** correctly explain how fewer small animals that eat grass means more grass.
- Does **NOT** summarize the impact on the balance of the ecosystem.

Explain the effects of an invasive species like pythons on the balance of a local forest ecosystem. In your explanation, be sure to:

- Describe **how and why** the populations of small mammals are affected.
- Predict what will happen to **other animals** in the ecosystem such as owls or hawks and why this will happen.
- Predict what will happen to the **plants** in the ecosystem and why this will happen.

How the populations of small mammals are affected because invasive species kill them.

Why the population of small mammals are affected is because they need food to live.

The other animals can get killed to because pythons coil around them and suffocate them.

The plants in the ecosystem could possibly die to because the invasive species will make it a bad environment and kill the plants.

CASCIA Grade 5 EOU Assessment 2 Task 3: Cycling Through a System

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	Explanation includes one (1) of the four (4) aspects	Explanation includes two (2) of the four (4) aspects	Explanation includes three (3) of the four (4) aspects	Explanation includes the following aspects: <ul style="list-style-type: none"> The snake will eat the small animals so the population of small animals will decrease There will be fewer small animals for hawks and owls to eat, so hawks and owls will reduce in population (or will change what they eat) Fewer small animals that eat grass means more grass Summarizes the impact on the balance of the ecosystem

Score Point 0 (0/4 aspects met)

- Does **NOT** correctly explain that the snake eating small animals will decrease their population.
- Does **NOT** correctly explain how fewer small animals for hawks and owls to eat will reduce their population.
- Does **NOT** correctly explain how fewer small animals that eat grass means more grass.
- Does **NOT** correctly summarize the impact on the balance of the ecosystem.

NOTE: The student response lacks specificity to support an accurate interpretation and scoring of the response.

Explain the effects of an invasive species like pythons on the balance of a local forest ecosystem. In your explanation, be sure to:

- Describe **how and why** the populations of small mammals are affected.
- Predict what will happen to **other animals** in the ecosystem such as owls or hawks **and why** this will happen.
- Predict what will happen to the **plants** in the ecosystem **and why** this will happen.

How is, all pythons and owls and hawks eat them. why is because, that is the one thing they like. The plants will start maybe go down because almost all animals eat them.