

# Ecosystems Assessment



## Marking Instructions

- Use a No. 2 pencil or a blue or black ink pen only.
- Do not use pens with ink that soaks through the paper.
- Make solid marks that fill the response completely.

**CORRECT:**



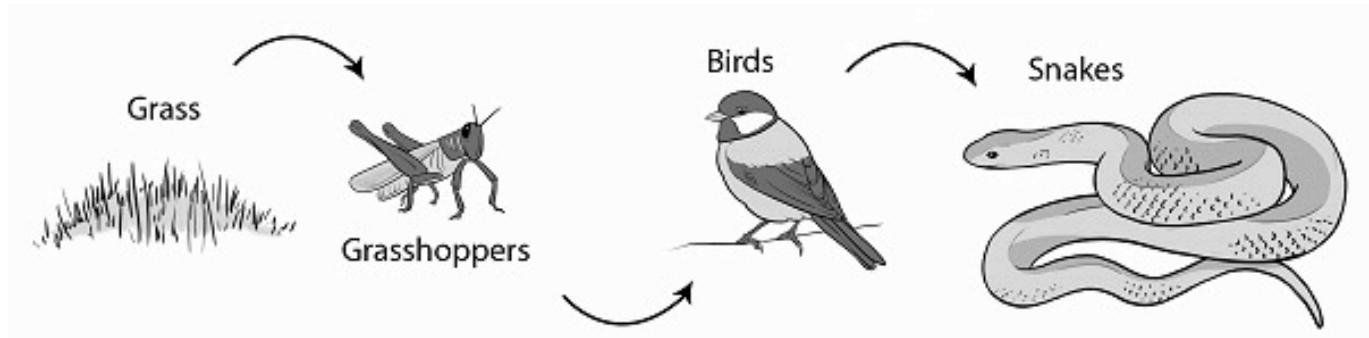
**INCORRECT:**



Name: \_\_\_\_\_ Date: \_\_\_\_\_

For each question below, fill in the bubble for the **BEST** answer.

1. The diagram below shows a food chain. Which of the following is a producer?



- A grass       B grasshoppers       C birds       D snakes

2. Which of the following events involves a consumer and a producer in a food chain?

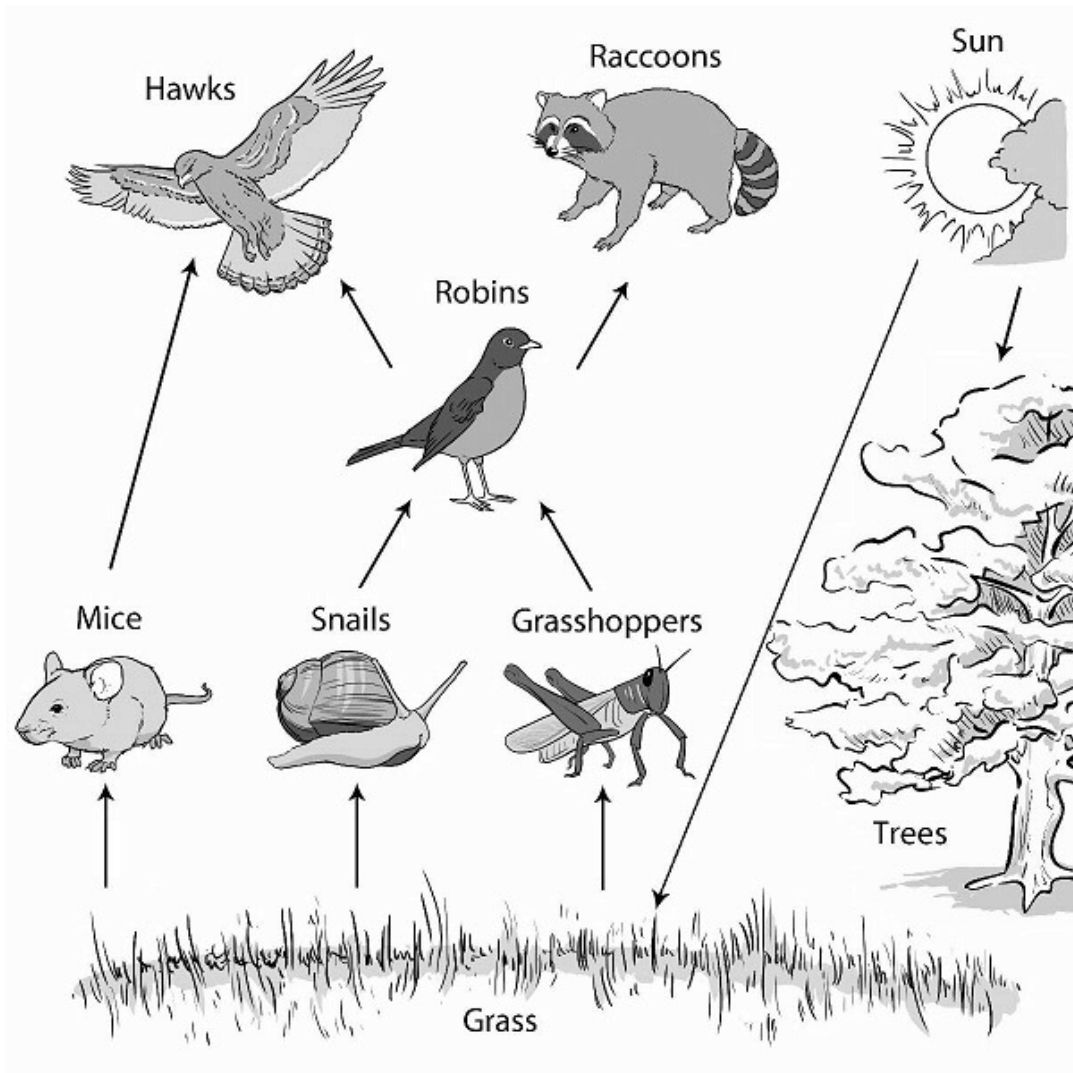
- A a deer eats a leaf
- B a snake eats a rat
- C a cat eats a mouse
- D a hawk eats a mouse

PLEASE DO NOT WRITE IN THIS AREA



[SERIAL]

The diagram below shows part of a food web for a meadow ecosystem.  
Use it to answer questions 3 - 7.



3. What does the arrow from the grasshopper to the robin in the food web diagram mean?

- Ⓐ that robins get energy from grasshoppers
- Ⓑ that grasshoppers get energy from robins
- Ⓒ that grasshoppers and robins live next to one another
- Ⓓ that robins are more important than grasshoppers in the ecosystem

4. Which of the following lists all of the consumers in this food web diagram?

- Ⓐ grass and trees
- Ⓑ hawks, robins, and raccoons
- Ⓒ mice, snails, and grasshoppers
- Ⓓ mice, snails, grasshoppers, hawks, robins, and raccoons

Use the diagram on the previous page to answer questions 5 - 7.

5. Which of the following is **NOT** a food chain found in this food web diagram?

- Ⓐ grass-mice-hawks
- Ⓑ grass-mice-raccoons
- Ⓒ snails-robins-raccoons
- Ⓓ grass-grasshoppers-robins-hawks

6. If the grass in the meadow stopped growing, what would probably happen in the meadow ecosystem? Please answer questions a through e.

a. There would be...	① fewer	② the same number of	③ more	...snails.
b. There would be...	① fewer	② the same number of	③ more	...robins.
c. There would be...	① fewer	② the same number of	③ more	...hawks.
d. There would be...	① fewer	② the same number of	③ more	...raccoons.
e. There would be...	① fewer	② the same number of	③ more	...grasshoppers.

7. If a disease caused most of the robins to die, what would probably happen in the meadow ecosystem? Please answer questions a through c.

a. There would be...	① fewer	② the same number of	③ more	...snails.
b. There would be...	① fewer	② the same number of	③ more	...raccoons.
c. There would be...	① fewer	② the same number of	③ more	...grasshoppers.



Question 1 from MCAS 2006 Science and Technology/Engineering Assessment- Grade 5.  
Question 2 from MCAS 2008 Science and Technology/Engineering Assessment- Grade 5.  
Massachusetts Department of Elementary and Secondary Education, Boston.

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