

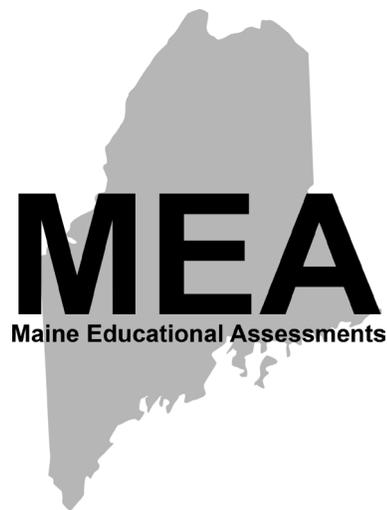
Test Administrator Test Booklet Science Grade 11

Maine Alternate Assessment

Sample Item



cognia[™]



Student Name: _____

Science
Grade 11
Sample Item

Item 1 | Level 1

HS-LS-2.2: Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.

Response Booklet: page 2

Teacher Script

SAY

The data table shows how snakes affect the percent of rabbits that survive in an area.

Indicate and read the data table to the student.

The title of the data table is “How Many Rabbits Survive?” Seventy-eight percent of rabbits survive in an area with snakes. One hundred percent of rabbits survive in an area with no snakes.

ASK

Based on the data table, which factor affects how many rabbits survive?

Indicate and read each response option to the student.

cars
plants
snakes

Student Response

RECORD

Fill in the circle for the student’s response.

- A. cars
- B. plants
- C. snakes**
- D. No Response

Item 1 | Level 2

HS-LS-2.2: Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.

Response Booklet: page 4

Teacher Script

SAY

Red squirrels were the only kind of squirrel on an island for many years. People later brought gray squirrels to the island. The graph shows how the red squirrel population changed after gray squirrels were put on the island.

Indicate and read the graph to the student.

The graph is titled “Change in Red Squirrel Population.” It shows how the number of red squirrels changed over ten years. In year two, there were ninety red squirrels. In year four, there were seventy red squirrels. In year six, there were forty-five red squirrels. In year eight, there were thirty red squirrels. In year ten, there were two red squirrels.

ASK

According to the graph, how did gray squirrels affect the population of red squirrels?

Indicate and read each response option to the student.

**Red squirrels increased in number.
Red squirrels decreased in number.
Red squirrels had larger places to live.**

Student Response

RECORD

Fill in the circle for the student’s response.

- A. Red squirrels increased in number.
- B. Red squirrels decreased in number.**
- C. Red squirrels had larger places to live.
- D. No Response

Item 1 | Level 3

HS-LS-2.2: Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.

Response Booklet: page 6

Teacher Script

SAY	<p>Maria learned that animals attack some birds' nests. This data table shows how the thickness of the forest affects how often a nest is attacked.</p> <p><i>Indicate and read the data table to the student.</i></p> <p>The title of the data table is "Forest Thickness and Nest Attacks." It compares the percent of forest thickness and the percent of nests attacked per day. At ten percent forest thickness, nine percent of nests are attacked per day. At thirty percent forest thickness, eight percent of nests are attacked per day. At fifty percent forest thickness, six percent of nests are attacked per day. At seventy percent forest thickness, four percent of nests are attacked per day. At ninety percent forest thickness, two percent of nests are attacked per day.</p>
ASK	<p>Which explanation is supported by the data in the data table?</p> <p><i>Indicate and read each response option to the student.</i></p> <p>Thick forests allow nests to be hidden better, so they have fewer nests attacked each day.</p> <p>Thick forests have more places for birds to make nests, so they have more nests attacked each day.</p> <p>Thick forests have more places for predators to hide, so they have more nests attacked per day.</p>
Student Response	
RECORD	<p><i>Fill in the circle for the student's response.</i></p> <ul style="list-style-type: none"><input type="radio"/> A. Thick forests allow nests to be hidden better, so they have fewer nests attacked each day.<input type="radio"/> B. Thick forests have more places for birds to make nests, so they have more nests attacked each day.<input type="radio"/> C. Thick forests have more places for predators to hide, so they have more nests attacked per day.<input type="radio"/> D. No Response

