



Grade 5 Science

Short Constructed-Response Scoring Guide

Spring 2025

General Information

Beginning with the 2022–2023 school year, science assessments include short constructed-response questions at every assessed grade level. Students are asked to provide a short response to a question. Responses are scored using a prompt-specific, two-point rubric.



This State of Texas Assessments of Academic Readiness (STAAR®) constructed-response scoring guide provides student exemplars at all score points for a short constructed-response question from the STAAR grade 5 science operational test. The question is presented as it appeared on the test, and responses were scored based on the two-point rubric that was developed with the input of Texas educators. A response earns a specific score point based on the completeness of the response provided as measured against the rubric.

The responses in this guide are actual student responses submitted online during the testing window. To protect the privacy of individual students, all names and other references of a personal nature have been altered or removed. Otherwise, the responses appear as the students wrote them and have not been modified.

Grade 5 Science Short Constructed Response

Prompt

Characteristics of the Atlantic puffin and the European starling are shown in the table.

Characteristic	Atlantic Puffin	European Starling
Habitat	Rocky coasts, open water of the North Atlantic Ocean	Cities, parks, open fields
Food Sources	Small fish, small shellfish	Insects, spiders, seeds, berries, fruit
Features	Wide, triangular beak; spiny tongue for holding prey; webbed feet; short wings	Long, pointed beak; strong legs and toes; long, triangular wings
Egg Laying	One egg laid per year	Four to six eggs laid twice per year
		

The European starling has a population size of about 150 million individuals, while the Atlantic puffin has a population size between 12 million and 14 million individuals.

Explain **TWO** likely reasons why the European starling has a greater population size than the Atlantic puffin.

Read the information in the table carefully. Then enter your answer in the box provided.

Item-Specific Rubric

Score: 2

The response provides complete and correct understanding.

The student response includes BOTH:

- Starlings lay more eggs **AND** produce more eggs per year/produce eggs more frequently.

OR

- Puffins lay fewer eggs **AND** produce fewer eggs per year/produce eggs less frequently.

OR

- The starling lays 4-6 eggs twice per year **AND** the puffin lays 1 egg per year.

Score: 1

The student answers half of the question correctly. The response provides partial understanding.

- Starlings lay more eggs **OR** produce more eggs per year/produce eggs more frequently.

OR

- Puffins lay fewer eggs **OR** produce fewer eggs per year/produce eggs less frequently.

OR

- The starling lays 4-6 eggs twice per year.

Score: 0

The response is incorrect or irrelevant. The response provides little to no understanding.

Sample Student Responses

Score Point 0

Response 1

The European starling has a better population size because they lay four to six eggs of year which means they reproduce alot a year which increases their population plus they live in a more better enviornment where there is more population of their prey and food also another reason is cause their food is easy to find and track down.

The response is incorrect or irrelevant and demonstrates little to no understanding. It includes neither of the required elements.

An incomplete attempt is made to address egg-laying quantity by comparison ("The European starling . . . lay four to six eggs of year which means they reproduce alot a year"). A general observation on the number of eggs ("alot") is noted but falls short of making a comparison to identify the starling lays more eggs.

While identifying the relevance of the starling's egg-laying information, an incorrect statement of the egg-laying data is made ("four to six eggs of year"), which does not clearly address their egg-laying frequency. The writer does not correctly identify that starlings produce more eggs per year or identify the start of a comparison with the puffin.

Additionally, while subjective inferences that starlings have better habitat spaces ("live in a more better enviornment where there is more population of their prey and food") and easier accessibility to their food sources ("food is easy to find and track down") are included as reasons, these are not supported by the data provided but are rather assumptions. These reasons also do not address the cause of the substantially higher population size of starlings.

Response 2

beacause the puffin only lays 1 egg per year

The response is incorrect or irrelevant and demonstrates little to no understanding. It includes neither of the required elements.

No attempt is made to compare the egg-laying quantity or frequency of the two birds; only the correct egg-laying facts for the puffin are provided ("the puffin only lays 1 egg per year").

The student makes a vague attempt to address the lower population size of the puffin by providing the egg-laying data for the puffin. This alone does not explain why the starling has a substantially higher population size. There is also no attempt to compare the puffin's and starling's egg-laying data. Further clarification is needed with at least one puffin egg-laying comparison (e.g., puffins lay fewer eggs, produce fewer eggs per year, lay less frequently, etc.) to address the cause for the substantial difference between the population sizes.

Response 3

The European Starling has a greater populatin size than then the Atlantic Puffis because, the European Starling has a much more stronger body than the Atlantic Puffins. Annother reason the European Starling has a greater population size is mainly because, It gets more food Just by using Its pointed beak, and strong legs and toes It has to catch Its prey.

The response is incorrect or irrelevant and demonstrates little to no understanding. It includes neither of the required elements.

No attempt is made to address the egg-laying quantity or frequency of the starling or the puffin.

While subjective inferences that starlings have better physical features (“the European Starling has a much more stronger body than the Atlantic Puffins”) and better adaptations (“gets more food Just by using Its pointed beak, and strong legs and toes”) are included as reasons, these are just assumptions and are irrelevant as both birds have features that are well adapted to their environment and food sources. These reasons do not address the cause of the substantially higher population size of starlings.

Response 4

The most likely reason the european starling bird’s have a way bigger population then the atlantic puffin is mosy likely becuae atlantic puffin birds need to in the north atlantic ocean or a rocky coast but.European birds can be in the cities,parks and open fields.And maybe another reason they have such a big population is because of their food they eat insects,berries,seeds and more fruit while atlantic puffin’s have to catch small fish,and small shellfish.

The response is incorrect or irrelevant and demonstrates little to no understanding. It includes neither of the required elements.

No attempt is made to address the birds’ egg-laying quantities or frequencies as reasons.

The student makes a vague attempt at two reasons by listing the data given in the table for both birds for two irrelevant characteristics: habitat (“atlantic puffin birds need to in the north atlantic ocean or a rocky coast but.European birds can be in the cities,parks and open fields”) and food sources (“they eat insects,berries,seeds and more fruit while atlantic puffin’s have to catch small fish,and small shellfish”).

Score Point 1

Response 1

The European starling has a population of 150 million individuals, while the Atlantic puffin has a population size between 12 million and 14 million because according to the table above it says that the European starling lays about 4 to six eggs twice a year but the Atlantic puffin lays 1 egg per year and after 2 years the Atlantic puffin will only lay 2 eggs while the European starling will lay about 4 to 6 eggs in 2 years so that is why the European starling has more population because they lay more eggs.

The response addresses half of the question correctly and demonstrates partial understanding. The student correctly identifies ONE likely reason why the European starling has a greater population size than the Atlantic puffin.

Egg-laying quantity is correctly identified and compared ("the European starling lays about 4 to six eggs . . . but the Atlantic puffin lays 1 egg"). While the student does not correctly calculate the number of starling eggs after two years ("4 to 6 eggs in 2 years"), the pairing of numbers still identifies that the starling lays more eggs.

An incorrect attempt is made to compare egg-laying frequency. While the student correctly states the egg-laying data for both birds initially, the student demonstrates no understanding of the starling's egg-laying frequency by stating "the European starling will lay about 4 to 6 eggs in 2 years" instead of 16–24 eggs in 2 years or 4–6 eggs four times in 2 years.

Response 2

there are more starlings than puffins because starlings lay ten times more eggs than puffins

The response addresses half of the question correctly and demonstrates partial understanding. The student correctly identifies ONE likely reason why the European starling has a greater population size than the Atlantic puffin.

Egg-laying quantity is correctly identified and compared ("starlings lay ten times more eggs than puffins"). Note "ten" is within range of the 8–12 eggs the starling lays per year; however, the number is used here in context of providing a reasonable number for quantity rather than frequency.

No attempt is made to compare the egg-laying frequencies of the birds.

Response 3

The European starling has a greater population size than the Atlantic puffin because a European starling lays four to six eggs twice in a year while an Atlantic puffin lays once a year.

The response addresses half of the question correctly and demonstrates partial understanding. The student correctly identifies ONE likely reason why the European starling has a greater population size than the Atlantic puffin.

Egg-laying frequency is correctly identified and compared ("European starling lays . . . twice in a year while an Atlantic puffin lays once a year"); however, the comparison of the birds' egg-laying quantities is incomplete ("European starling lays four to six eggs") because the quantity of eggs laid by the puffin is missing.

Response 4

The European starling has a bigger population due to the amount of eggs laid, and the amount of times the birds layed them.

The response addresses half of the question correctly and demonstrates partial understanding. Although it does not include the two required comparative reasons for why the European starling has a larger population than the Atlantic puffin, it correctly identifies that the starling's egg-laying quantity and frequency are relevant to the question.

The writer identifies the starling's egg-laying quantity and frequency numbers ("The European starling has a bigger population due to the amount of eggs laid, and the amount of times the birds layed them"). While the response does not specifically address the numbers (4–6 eggs, 2 times per year), the student demonstrates partial understanding by identifying both correct reasons without making comparisons to contextualize the population size in relation to the puffin.

Score Point 2

Response 1

Many of the food sources that the European starling depends on are fruits, seeds, and berries, which all cannot move by themselves, making them all easier to get, while the Atlantic puffin eats things such as small fish, which swim away from the Atlantic puffins, making it harder to catch. Another reason why the puffins could have a smaller population than the European starling is that they give birth to less offspring every year, the table showing that they lay one egg per year, while starlings lay four to six eggs twice a year, allowing them to reproduce more often.

The response demonstrates complete and correct understanding. It includes the two required elements by correctly identifying the TWO likely reasons why the European starling has a greater population size than the Atlantic puffin. Although the student need only provide two comparative reasons, three comparisons are given and sufficiently explained.

Egg-laying quantity is correctly identified and compared (“the puffins . . . give birth to less offspring every year”). The use of “offspring” is acceptable in place of “eggs.” Egg-laying frequency is also correctly identified and compared (“while starlings . . . reproduce more often”). The student accurately identifies and compares the egg-laying data for both birds (“puffins . . . lay one egg per year, while starlings lay four to six eggs twice a year”).

While a subjective inference (“Many of the food sources that the European starling depends on . . . cannot move by themselves, making them all easier to get, while the Atlantic puffin eats . . . small fish, which swim away . . . making it harder to catch”) is included as the student’s first reason, obstacles exist for both birds on obtaining food. This reason also does not address the cause of the substantially higher population size of starlings.

Response 2

Two reasons that European starling has a greater population size than the Atlantic puffin are that then Starling lays 8 to 12 eggs per year while the Puffin only lays one, this shows that the population while make a great difference over the course of a couple years. It also says that Starlings live in more human built places when the Puffin lives in the wild. This means that the Puffin will have a lot more predators than the Starling does. This all shows why the Starling has a bigger population.

The response demonstrates a complete and correct understanding. It includes the two required elements by correctly identifying the TWO likely reasons why the European starling has a greater population size than the Atlantic puffin.

Egg-laying quantity is correctly identified and compared ("Starling lays 8 to 12 eggs . . . while the Puffin only lays one"). Egg-laying frequency is also correctly identified and compared ("Starling lays 8 to 12 eggs per year"). The student correctly converts the starling's egg-laying data (4–6 eggs twice per year) to the total number of starling eggs per year, providing a direct "per year" comparison with the puffin.

While a subjective inference ("Starlings live in more human built places when the Puffin lives in the wild. This means that the Puffin will have a lot more predators than the Starling") is included as the student's second reason, the number of predators each species faces is neither directly measurable nor supported by the data. While predation may affect survivability and population numbers, it is not the cause of the higher population size of starlings.

Response 3

it produce more babys per year then the puffin
the puffin only lays one egg and starling makes 4 to 6

The response demonstrates complete and correct understanding. It correctly identifies the TWO likely reasons why the European starling has a greater population size than the Atlantic puffin.

Egg-laying quantity is correctly identified and compared ("the puffin only lays one egg and starling makes 4 to 6"). Egg-laying frequency is also correctly identified and compared ("it produce more babys per year then the puffin"). The use of "babys" is acceptable in place of "eggs."

Per the rubric, students may EITHER correctly identify a bird produces more/less eggs per year OR produces eggs more/less frequently. Instead of calculating the total number of starling eggs laid in a year (8–12), the student uses comparative language to identify which bird lays more eggs per year. Note that while the student may appear to indicate egg quantity by comparison with "more babys" when taken out of context, the student must attempt to address egg-laying quantity separately by either further clarification that the starling lays more eggs/puffin lays fewer eggs or by comparing the egg quantity numbers, which this response does.

Response 4

One reason is that the European starling lays 4-6 eggs twice a year and the atlantic puffin only lays 1 egg a year.

The response demonstrates complete and correct understanding. It correctly identifies the TWO likely reasons why the European starling has a greater population size than the Atlantic puffin.

Correct egg-laying data for both birds is identified and compared ("starling lays 4-6 eggs . . . and the atlantic puffin only lays 1 egg"). Correct egg-laying frequency is also identified and compared ("starling lays . . . twice a year and the atlantic puffin only lays . . . a year").