

Science Grade 4 C

Grade Level Standard(s): Science 4 Physical Science 2: Make observations and/or use measurements of an object’s motion to provide evidence that patterns can be used to predict future motion.

Material(s) Provided for Science 4 C	Question(s)	Page Number
Science 4 C Video Clip 3 Toy Car	4	OTS Download and USB Drive
Science 4 C Attainment Task Questions for Student Use	1 - 5	15

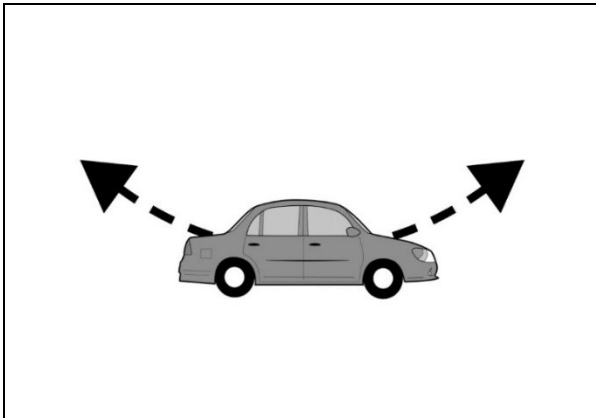
Response Code:

- Indicate the answer provided by the student.

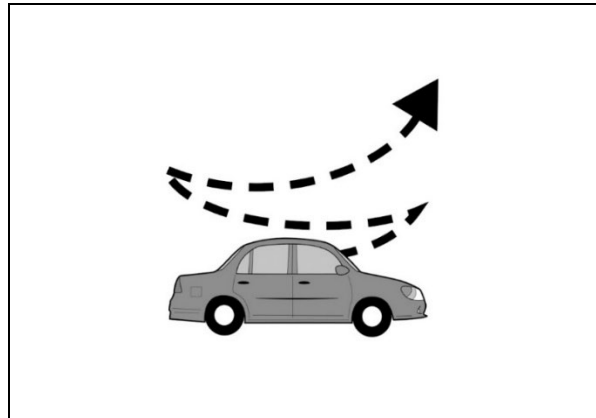
Text Coding:

- “Quotation marks” indicate the script that the teacher should read to the student.
- *Italicized text* provides further direction for the test administrator.
- Words in parenthesis () are optional; they may replace or be read in addition to the word(s) immediately preceding.

a. The toy car moves back and forth.



b. The toy car goes higher each time.



c. The toy car has no pattern.



Before beginning task administration, please ensure that all conditions specified in the testing protocol (starting on page 12 of the Administration Guide) have been met. Inform the student that the task is about to start by saying, “We are about to start the task, and I am going to ask you some questions.”

All questions from this task are available for presentation to the student in the supplemental material [Science 4 C Attainment Task Questions for Student Use](#).

“Mr. Abel is taking his class to the playground to learn more about force and motion.”

Play [Science 4 C Video Clip 3 Toy Car](#) and say to the student, “Jordan is playing with her toy car inside the slide.”

4. “What do you notice about the pattern of the toy car’s motion?”

Response Option	<i>Response Rationale</i>
a. The toy car moves back and forth. (Correct)	<i>The student correctly identifies the pattern of the motion of the car by indicating the car goes back and forth.</i>
b. The toy car goes higher each time.	<i>The student recognizes that the car is moving in a pattern but incorrectly identifies the pattern.</i>
c. The toy car has no pattern.	<i>The student is unable to identify a pattern in the motion of a car.</i>
<i>Depth of Knowledge (DOK) 1</i>	

Science 4 C Attainment Task Questions for Student Use

4. What do you notice about the pattern of the toy car's motion?

Kentucky Academic Standard: Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. [Clarification Statement: Examples of motion with a predictable pattern could include a child swinging in a swing, a ball rolling back and forth in a bowl, and two children on a seesaw.] 3-PS2-2

Alternate Assessment Target: *Make observations and/or use measurements of an object's motion to provide evidence that patterns can be used to predict future motion.*

Student Group	Number of Students	Percent Correct
All Students	495	52.73%
Gender		
Female	163	57.67%
Male	332	50.30%
Ethnicity		
African American	55	43.64%
American Indian or Alaska Native	<10	Not Reported
Asian	13	30.77%
Hispanic of Latino	<10	Not Reported
Native Hawaiian of Pacific Islander	<10	Not Reported
White (Non-Hispanic)	370	53.78%
Two or More Races	54	59.26%
English Learner	30	40.00%
Economically Disadvantaged	404	55.45%

*Number of students that attempted the item