

Science Grade 7 C

Grade Level Standard(s): Science 7 Physical Science 2: With peer or teacher support, plan an investigation and use evidence to determine how change in an object’s motion depends on the net force on the object and the mass of the object.

Material(s) Provided for Science 7 C	Question(s)	Page Number
Science 7 C Attainment Task Questions for Student Use	1 - 5	19

Response Code:

- Indicate the answer provided by the student.

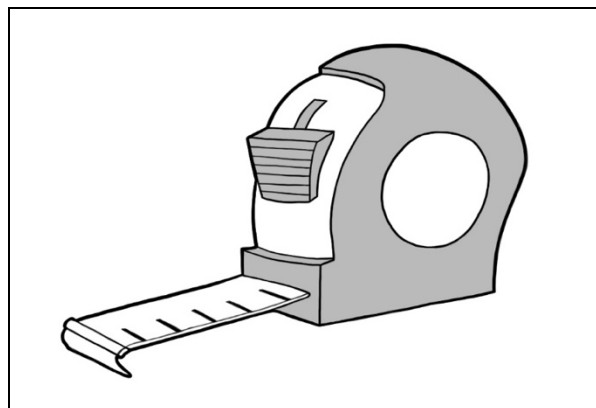
Text Coding:

- “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. Magnifying glass



b. Measuring tape



c. Calculator



Before beginning task administration, please ensure that all conditions specified in the administration protocol (starting on page 10 of the Administration Guide Overview and Attainment Task Administration) 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 7 C Attainment Task Questions for Student Use.

“The class is planning an investigation to better understand the movement of objects. They have four balls that are the same size and covered with the same external (outside) material, but each has a different mass.”

2. “The class decides to push each ball with the same amount of force on the gym floor and find how far each ball travels. Which of the following tools **must** the class use to do this investigation?”

Response Option	Response Rationale
a. Magnifying glass	<i>The student attempts to identify the appropriate tool but selects magnifying glass instead of measuring tape.</i>
b. Measuring tape (Correct)	<i>The student correctly identifies the appropriate tool for the investigation as the measuring tape.</i>
c. Calculator	<i>The student attempts to identify the appropriate tool but selects calculator instead of measuring tape.</i>
Depth of Knowledge (DOK) 1	

Science 7 C Attainment Task Questions for Student Use

2. The class decides to push each ball with the same amount of force on the gym floor and find how far each ball travels. Which of the following tools **must** the class use to do this investigation?

Kentucky Academic Standard: Grade Level Standard(s): Science 7 Physical Science 2: With peer or teacher support, plan an investigation and use evidence to determine how change in an object’s motion depends on the net force on the object and the mass of the object.

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	488	55.33%
Gender		
Female	152	57.89%
Male	336	54.17%
Ethnicity		
African American	63	49.21%
American Indian or Alaska Native	<10	Not Reported
Asian	<10	Not Reported
Hispanic or Latino	<10	Not Reported
Native Hawaiian or Pacific Islander	<10	Not Reported
White (non-Hispanic)	361	58.73%
Two or More Races	57	42.11%
English Learner	28	35.71%
Economically Disadvantaged	393	55.47%

*Number of Students that attempted the item