



# **Grade 5 Science**

## Short Constructed Response Scoring Guide

Spring 2023

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A class is using the setup shown to test this hypothesis.

The shorter the stack of books becomes,  
the shorter the distance the toy truck will roll.



What is ONE more piece of equipment needed to test the hypothesis AND how can the hypothesis be tested?

Look at the diagram carefully. Then enter your answer and explanation in the box provided.

Score: 2

The student needs to identify at least one more piece of equipment such as:

- a ruler
- a measuring tape
- a meter stick

AND

Include at least one idea for how the hypothesis can be tested:

- varying the size of the book stack
- measuring distance traveled
- repeated trials

Score: 1

The student answers half of the question correctly.

Score: 0

The response is incorrect or irrelevant.





## Score Point 1

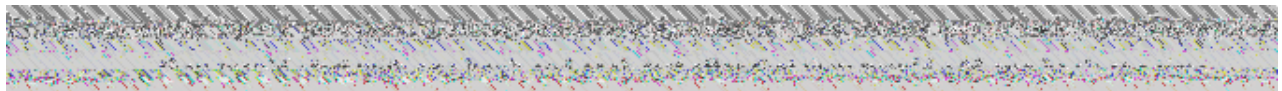
### Response 1



The response demonstrates a partial understanding of experimental design for scientific investigations testing one variable with a given hypothesis.

No attempt is made to identify a piece of equipment needed to test the hypothesis. The response only addresses the second element to include a valid idea for how the hypothesis can be tested: a description of repeated trials of the experiment ("That you have to do it more than once") as "it" can be seen here as referring to "testing" the hypothesis.

### Response 2



The response demonstrates a partial understanding of experimental design for scientific investigations testing one variable with a given hypothesis.

No attempt is made to identify a piece of equipment needed to test the hypothesis. The response only addresses the second element to include a valid idea for how the hypothesis can be tested: a clear description of varying the size of the book stack without any incorrect information ("every test . . . add or take away some books. The first round they would start with one book and each test after that they would add one book at a time").

### Response 3



The response demonstrates a partial understanding of experimental design for scientific investigations testing one variable with a given hypothesis.

An incorrect identification of a piece of equipment needed to test the hypothesis is provided ("a notepad is needed to take notes"). Tangible (paper, pen, person, etc.) tda2bgeded- (pen)13 (n)-3 (p)0. up

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Response 4



The response demonstrates a partial understanding of experimental design for scientific

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Response 3



The response demonstrates a complete understanding of experimental design for scientific investigations testing one variable with a given hypothesis.

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