

HIGH SCHOOL CONSTRUCTED RESPONSE SAMPLE ITEMS

Physical Science Sample Item

CR—

A student is practicing for a big race. At each of the indicated times, she turns around and reverses the direction of travel or changes her speed until she stops at point D. Based on the diagram, how does the student's displacement at point D compare to the total distance travelled? Explain your answer using the terms frame of reference, distance, and displacement. Also, support your answer with mathematical reasoning.

