

Running Downhill

CER: Explain how Newton's Laws describe changes in an object's motion.

Essential Question How does Newton's first law affect human motion?



A student has begun training for tryouts for lacrosse by running a two mile loop through her neighborhood every evening. Part of the run is a very steep hill. One evening, the student is running down the hill at a very quick pace when she notices a dog lying in the middle of her path. To avoid hitting the dog, she tries to stop but has difficulty. With effort, she is able to stop right before running into the dog.

Explain why it was so difficult for the student to stop. In your response, be sure to include:

- the role of Newton's first law in making it difficult for the student to stop.
- the correct use of the term inertia.
- why some objects in motion have more inertia than others.

Be sure to consider the completeness of your response, supporting details, and accurate use of terms. (claim, evidence, reasoning)