RECORD SHEET

Activity 10: Applying Force and Energy Ideas

Name Date Class

Idea Power

Read the task, then perform an analysis and write an explanation for each of the following tasks. For guidance, use *How To Write an Analysis and Explanation*.

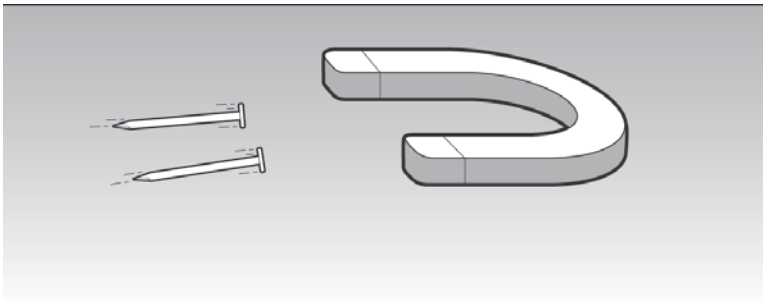
All of the analyses should include the *interacting objects and their interaction type*, and *labeled force arrows* showing the forces being exerted on the object named in the task.

1. Some steel nails and a magnet are on a table. Analyze and explain why the nails speed up toward the magnet. Your analysis should include the *interacting objects and their interaction type*, and *labeled force arrows* showing the forces being exerted on the nails.

Analysis:

Explanation:

Draw Force Arrows:

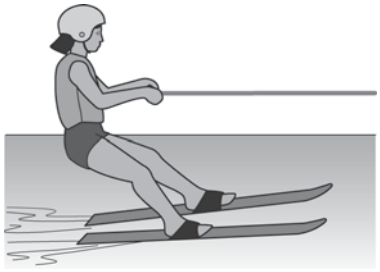


2. Analyze and explain why a water skier has a constant speed.

Analysis:

Explanation:

Draw Force Arrows:



3. Analyze and explain why a soccer ball slows down as it comes in contact with the net.

Analysis:

Explanation:

Draw Force Arrows:

In Questions 4 and 5, the analyses should include the following:

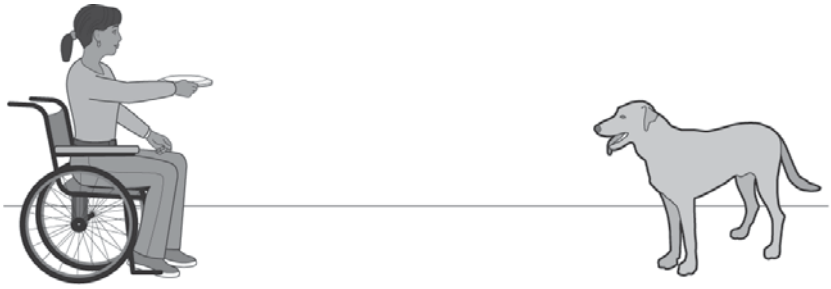
- the *interacting objects*
- their *interaction type*
- *labeled force arrows* showing the forces being exerted on the flying disc
- an *energy diagram* for the flying disc

4. Analyze and explain why the flying disc speeds up while the girl is throwing it.

Analysis:

Explanation:

Draw Force Arrows:



5. Analyze and explain why the flying disc slows down as it sails through the air.

Analysis:

Explanation:

Draw Force Arrows: