

Learning Target: I can explain and demonstrate the law of conservation of energy through the changes in potential and kinetic energy in roller coasters.



All About Roller Coasters Interactive Activity

Directions: Drag and drop or write the amounts of kinetic and potential energy at different points on roller coasters next to their correct location.

| | | |
|----------------------------|---|----------------------------|
| 0 % PE, 100 % KE | 35% PE, 65% KE Gaining smaller amount of PE | 40% PE, 60% KE, Gaining KE |
| 80% PE, 20% KE, Gaining PE | 60% PE, 40% KE, Gaining PE | 100% PE, 0% KE |

Diagram 1

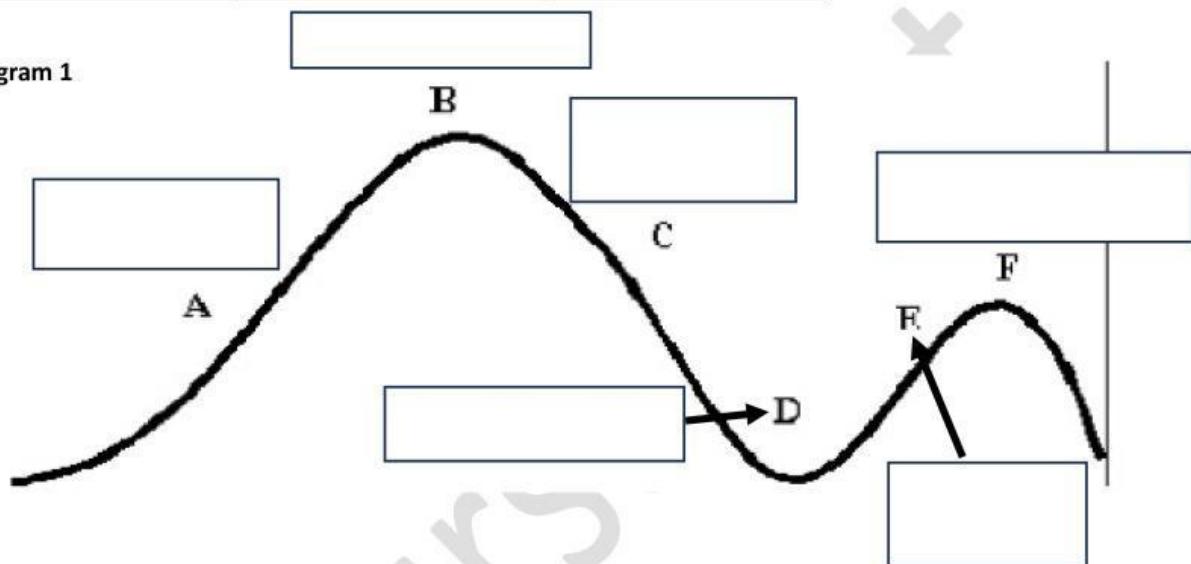
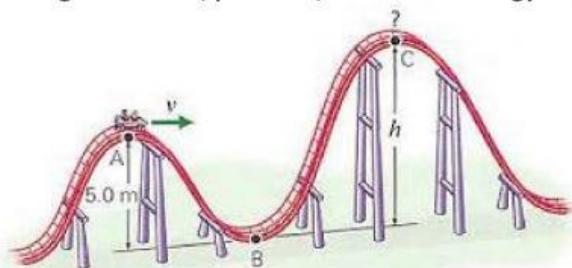


Diagram 2: Analyze the following roller coaster diagram and answer the questions that follow. Use the terms gravitational, potential, and kinetic energy in your explanations.



1. What potential problem do you see with this roller coaster? _____
2. Explain what would happen as a result of this problem. _____
3. How would you fix this problem? _____
4. Explain why your solution would work. _____