SYSTEMS DIAGRAM AND RACK AND PINION

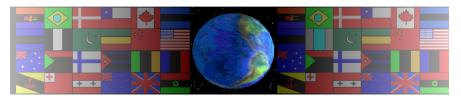
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On behalf of The World Association of Technology Teachers

W.A.T.T.



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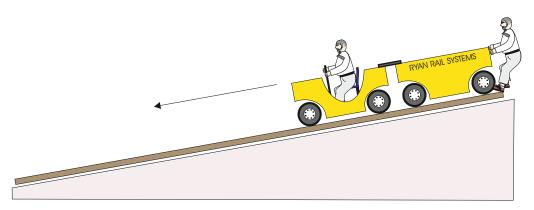
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1. Roller coasters are found in theme parks throughout the world. Electricity is used to drive the large motors that pull the carriages up the tracks and gravity allows the carriages to pick up sped on the way down. Complete the systems diagram below to show the main energy changes.



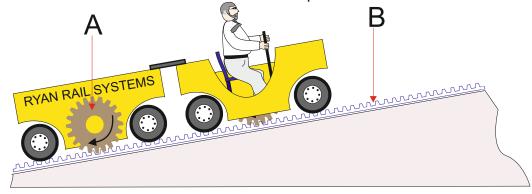
2. What is Kinetic Energy?

3. The carriage of a roller coaster seen below is at the top of an incline. At any point it could roll downwards, gathering speed. What is potential energy?



Potential energy is:

4. The carriage at the bottom of the roller coaster incline has a special gear system. On the diagram the gear system is marked A and B. What are the correct names for parts A and B?



PART A:				

PART B: