ESK 4.1/4.2- Energy



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| **Requirements** | **POL Presentation** |
| 1. Design a roller coaster (Digital or Hand drawn) 2. Give measurements for the height of the roller coaster at 5 different places    * One should be the highest point in the roller coaster, and one should be the lowest point 3. Choose an initial speed for the roller coaster and prove that energy will be conserved throughout the entire ride | * I can explain the design of my roller coaster and how it fits with the overall theme of the park. * I have identified 5 different heights in my roller coaster that are reasonable. * I have an initial speed for my roller coaster that is reasonable. * I can prove that the roller coaster has enough energy to reach the top of a roller coaster at a reasonable speed using systems of equations. * I can prove that the roller coaster has enough energy to go through the lowest part of the roller coaster at a reasonable speed using systems of equations. * I can solve for the speed of the roller coaster at any given height. |

**Powerpoint Guide:**

* Every slide should have more visuals than words.
* You should not be reading anything off of your slides
* You cannot put fully solved problems on your slide. You may write questions or variables, but you must be able to solve it on the spot.
* You may not use any notecards during your presentation.
* No more than **three** slides

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| **Physics POL Rubric – Semester 2 – 2018** | | | | | |
| **ESK & Habit of Mind** | **Grading Expectations** | | | | **POL Grade** |
| 4 Check = 4 | 3 Checks = 3 | 2 Checks = 2 | 1 Checks = 1 |
| **Habit of Mind:**  Presentation Accountability | * Professional Dress, including shoes for the entirety of POLs * Uses resources in the room to enhance presentation (whiteboard, projector, visuals) * Utilizes time effectively during presentation (not too short/too long) * Productive, punctual and respectful member of POL audience and panel | | | |  |
| **Habit of Mind:** Presentation Quality | * Speaks clearly, towards the audience, with accurate pronunciation and presentation volume. * Makes eye contact and maintains a calm, present demeanor. * Body language is confident and professional. * Has a neatly organized, well-planned explanation that is easy to follow. | | | |  |
| **ESK 4.1/4.2**  **ESK 5**  **ESK 6.1/6.2** | |  |  |  |  | | --- | --- | --- | --- | | 4 | 3 | 2 | 1 | | * Presents complete thought process of evidence to explain understanding of ESK. * Can analyze mistakes and corrections, can answer prompted questions thoughtfully and thoroughly. * Can apply multiple representations to show understanding of ESK without prompting. * Presentation demonstrates a full and complete understanding of ESK | * Presents most of thought process of evidence to explain understanding of ESK. * Can analyze mistakes and corrections, can answer most prompted questions. * Can apply multiple representations to show understanding of ESK with some prompting. * Presentation demonstrates a partial understanding of ESK | * Presents some of the thought process of evidence to explain ESK. * Can analyze some mistakes and corrections, and can only answer some of prompted questions. * Can apply multiple representations to show understanding of ESK with a lot of prompting. * Presentation demonstrates a partial understanding of ESK | * Does not show thought process to explain ESK. * Cannot analyze mistakes and corrections, cannot answer most of the prompted questions. * Cannot apply multiple representations to show understanding of ESK. * Presentation demonstrates an incomplete or no understanding of ESK | | | | |  |
| Pass  No Pass |