Honors Physics, February 5 - 9, 2024

Day	Academic Objective	Activities	Homework/Assessments	Biblical Integration
M	Investigate centripetal force	**LAB:** Centripetal Force	• Circular Motion Worksheet I • **Print & Read** LAB: Centripetal Force • Web post due by Friday 11:59 PM	
TU	Solve problems with horizontal and vertical circular motion	Practice circular motion (& torque) problems	• Circular Motion Worksheet II	Students will understand that God continuously sustains all things throughout the present by exploring centripetal force
W	Discuss rotation and inertia	Discuss pg. 256 - 259 "Rotation and Inertia"	•	
TH	Discuss rotational dynamics	Discuss Rotational Dynamics 2	•	
F	Define and apply Newton's universal law of gravitation	Discuss ch 7, pg. 232 - 239 "Newton's Universal Law of Gravitation"	• Pg. 264 - 268: 12 - 19, 22, 23, 39, 40, 52 • KOH Final Car Due Monday • Web post due by Friday 11:59 PM	

King of the Hill Project *(Full overview on next page)*

- *Final car due Monday. February 12*
- *RACE Tuesday. February 13*

TEST *on chapter 7 Thursday, February 15*

Lab reports *for 2nd half of term due 3/5 – Save as PDF 2X*

Even the impossible is God's reality. Jesus I believe. Help my unbelief. *Jason Ingram/Michael Weaver*

King of the Hill Project Overview

Step 4: King of the Hill Project Car - *Due Monday, February 12*

- This car must follow exactly the project guidelines. *Pay particular attention to size guidelines!*
- Give yourself PLENTY of time to construct your car and to fix small and large things that will break, spin out, snap, flip, or just plain not work.
- You must demonstrate that your car can run at least 10 cm; however, you may take your car home to make final adjustments before the next day competition.

Step 5: King of the Hill Competition – *Due Tuesday, February 13*

- Your car must be ready to run 7 minutes after the bell for class.
- Also bring to class a final schematic of your car with the parts labeled, including what the parts are made from. More than one view might be necessary to show the "engine" of the car and how it works Also include a description of how your car runs and the physics principles behind its design.
- Bring plenty of spare parts!
- In addition to the King of the Hill competition, there will be a race for speed and a race for distance.