

Name: Kevin Woolridge		Grading Quarter: Q1	Week Beginning: W9
School Year: 2023		Subject: Conceptual Physics and Engineering	
Monday	Notes:	<ul style="list-style-type: none"> • Objective: Students will demonstrate their understanding of Projectile motion including concepts of motion in two dimensions, gravity, circular motion, and Satellite Motion as evidenced by successfully building a trebuchet capable of launching a projectile a minimum of 40 ft and accurately hitting a target less than 60 ft from the launch site. <p>Lesson Overview: Mousetrap car lab and Lab time/build day.</p> <ul style="list-style-type: none"> • Introduce projectile motion/trebuchet project • Power point and lecture Gravity1. • Hewitt video - Gravity I: The inverse-square law is explained and then related to the law of universal gravitation. Weight and weightlessness, the discoveries of the planets Neptune and Pluto, and the universality of gravitation are also discussed. Complete assigned readings and questions from the text, chapter 8. 	<p>Essential HS.P3U1.6 Collect, analyze, and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.</p> <p>HS-PS3-3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.</p>
Tuesday	Notes:	<ul style="list-style-type: none"> • Objective: Students will demonstrate their understanding of Projectile motion including concepts of motion in two dimensions, gravity, circular motion, and Satellite Motion as evidenced by successfully building a trebuchet capable of launching a projectile a minimum of 40 ft and accurately hitting a target less than 60 ft from the launch site. <p>Lesson Overview: Mousetrap car lab and Lab time/build day.</p> <ul style="list-style-type: none"> • Introduce projectile motion/trebuchet project • Power point and lecture Gravity1. • Hewitt video - Gravity 2: The discussion of gravitation continues with the emphasis on ocean, earth, and atmospheric tides. Other topics include tunnels through the earth, black holes, the big bang, and speculations of an oscillating universe. Complete • assigned readings and questions from the text, chapter 8. 	<p>Essential HS.P3U1.6 Collect, analyze, and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.</p> <p>HS-PS3-3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.</p>

Wednesday	Notes:	<ul style="list-style-type: none"> • Objective: Students will demonstrate their understanding of Projectile motion including concepts of motion in two dimensions, gravity, circular motion, and Satellite Motion as evidenced by successfully building a trebuchet capable of launching a projectile a minimum of 40 ft and accurately hitting a target less than 60 ft from the launch site. <p>Lesson Overview: Mousetrap car lab and Lab time/build day.</p> <ul style="list-style-type: none"> • Introduce projectile motion/trebuchet project • Power point and lecture Gravity1. • Hewitt video – Center of gravity I: The concepts of torque, center of gravity, and center of mass are applied to balancing. Demonstrations include finding the center of gravity of irregularly-shaped objects, a weighted disk that rolls uphill, and a seesaw. • Complete assigned readings and questions from the text, chapter 8. 	<p>Essential HS.P3U1.6 Collect, analyze, and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.</p> <p>HS-PS3-3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.</p>
Thursday	Notes:	<ul style="list-style-type: none"> • Objective: Students will demonstrate their understanding of Projectile motion including concepts of motion in two dimensions, gravity, circular motion, and Satellite Motion as evidenced by successfully building a trebuchet capable of launching a projectile a minimum of 40 ft and accurately hitting a target less than 60 ft from the launch site. <p>Lesson Overview:</p> <ul style="list-style-type: none"> • Continue with projectile motion/trebuchet physics concepts • Power point and lecture Gravity1. • - Rotation: The concept of rotational inertia is developed from a variety of everyday examples and demonstrations Hewitt video using weighted objects, and rolling cans filled with both liquids and solids. A rotating turntable demonstrate angular momentum. • Complete assigned readings and questions from the text, chapter 8. 	<p>Essential HS.P3U1.6 Collect, analyze, and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.</p> <p>HS-PS3-3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.</p>
Friday	Notes:	<ul style="list-style-type: none"> • Objective: Students will demonstrate their understanding of physics concepts of gravity, motion in two dimensions, Center of gravity, circular motion, and Satellite Motion as evidenced by completion of assigned questions from the text and the Gravity quiz with 80% accuracy. <p>Lesson Overview.</p> <ul style="list-style-type: none"> • Hewitt video Satellite Motion: The concept of simple projectile motion is extended to include satellite motion—first circular, and then, elliptical. After a discussion of escape speed, the tape concludes with a summary of previously learned concepts in mechanics. • Continue with projectile motion/trebuchet physics concepts. • Power point and lecture Gravity review • Quiz Gravity 	<p>Essential HS.P3U1.6 Collect, analyze, and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.</p> <p>HS-PS3-3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.</p>