| Name:<br>Kevin Woolridge | | Grading Quarter:<br>Q2 | Week Beginning:<br>W11 |
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| School Year: 2023 | | Subject: Conceptual Physics and Engineering | |
| Monday | Notes: | No school | |
| Tuesday | Notes: | • **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 the projectile motion lab including calculations of launch angle, initial velocity and max height given only the time of flight, distance and initial height with 80% accuracy.<br>**Lesson Overview.**<br>• projectile motion lab.<br>• Power point and lecture projectile motion review | Essential HS.P3U1.6<br>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.<br>HS-PS3-3<br>Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy. |
| Wednesday | Notes: | • **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 designing and building a trebuchet capable of launching a tennis ball 40-60 feet.<br>**Lesson Overview.**<br>• Introduction of Trebuchet challenge.<br>• Physics of at Trebuchet video and presentation<br>• Projectile motion/trebuchet physics concepts. | Essential HS.P3U1.6<br>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.<br>HS-PS3-3<br>Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy. |

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| Thursday | Notes: | • **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.<br>**Lesson Overview.**<br>• 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.<br>• Continue with projectile motion/trebuchet physics concepts. | Essential HS.P3U1.6<br>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.<br>HS-PS3-3<br>Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy. |
| Friday | Notes: | • **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.<br>**Lesson Overview.**<br>• Lab day. Students will be given time in class to work on their trebuchet. | Essential HS.P3U1.6<br>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.<br>HS-PS3-3<br>Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy. |