Name: Kevin Woolridge		Grading Quarter: Q1	Week Beginning: W7
School Year: 2023		Subject: Conceptual Physics and Engineering	
Monday	Notes:	**Objective**: Students will demonstrate their understanding of energy including Energy, Work, Power, Mechanical Energy Potential and Kinetic, Work-Energy Theorem, Conservation of Energy, Machines Efficiency, Recycled Energy, Energy for Life and Sources of Energy as evidenced by the completion of selected problems from the text and end of unit quiz with 80% accuracy. **Lesson Overview:** • Students are asked to read Chapter 7, Energy. • Power point lecture, **Energy:** Mechanical energy in its potential and kinetic forms is illustrated with demonstrations that include a bouncing dart, a pendulum, and a simple pulley system. The conservation of energy is illuminated using everyday examples and a hand-cranked electric generator. • Power point presentation, energy Completion of assigned problems from the text.	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.
Tuesday	Notes:	**Objective**: Students will demonstrate understanding of change in motion including (Impulse Changes, Momentum, Bouncing, Conservation of Momentum, and Collisions) and energy of an object or system in one dimension including (Impulse energy including Energy, Work, Power, Mechanical Energy Potential and Kinetic, Work-Energy Theorem, Conservation of Energy, Machines Efficiency, Recycled Energy, Energy for Life and Sources of Energy) as evidenced by the completion of selected problems from the text and end of unit quiz with 80% accuracy. **Lesson Overview:** • Students are asked to review, Chapter 6 - Momentum and Chapter 7 -Energy. • Power point review • Exam, Momentum and Energy	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.
Wednesday	Notes:	• **Objective**: Students will demonstrate their understanding of the change in motion and energy including concepts of concepts of speed, velocity, and acceleration of an object or system in one dimension, as evidenced by successfully building and racing a mousetrap car for a minimum of 5 meters. **Lesson Overview: Mousetrap car lab and Lab time/build day.** • Review of Mousetrap car project, constraints and project requirements including grading criteria. • Students will be provided with the mousetrap car project worksheet and instructions. • Brainstorm concepts and /research project ideas with small group • Independent build and testing time during class.	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.

Thursday	Notes:	• **Objective**: Students will demonstrate their understanding of the change in motion and energy including concepts of concepts of speed, velocity, and acceleration of an object or system in one dimension, as evidenced by successfully building and racing a mousetrap car for a minimum of 5 meters. **Lesson Overview: Mousetrap car lab and prototype test day** • Brainstorm concepts and /research project ideas with small group • Independent build and testing time during class. • Students will be able to test their prototype mousetrap Cars and make modifications as needed to be successful on race day. • Students will be provided with the Mousetrap car race track and timer. • Students will complete their time trial log due on race day.	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.
Friday	Notes:	• **Objective**: Students will demonstrate their understanding of the change in motion and energy including concepts of concepts of speed, velocity, and acceleration of an object or system in one dimension, as evidenced by successfully building and racing a mousetrap car for a minimum of 5 meters. **Lesson Overview: Mousetrap car race day** • Students will compete 8in the Mousetrap car race. • Students will be given 3 attempts to complete the 5 Meter race in the fastest time. • Students will be provided with the Mousetrap car race track and timer. • Students will complete and tun in their race day evaluation worksheets.	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.