Name: Kevin Woolridge		Grading Quarter: Q2	Week Beginning: W17
School Year: 2023		Subject: Conceptual Physics and Engineering	
Monday	Notes:	**Objective**: Students will demonstrate understanding of physics concepts of conservation of Heat, Temperature, and Expansion, Heat Transfer, Heat Radiation Heat conduction, including, Temperature and heat are distinguished from each other. The expansion of solids, liquids, and gases. Specific heat capacity leads to the physics of a freezing lake. And radiation is related to Newton's law of cooling. With 80% accuracy as evidenced by completion of thermal physics exam. **Lesson Overview.** • Presentation/Lecture and notes, Chapter 15_Temperature, Heat, and Expansion. This lecture will cover Conduction, Convection, Radiation, Newton's Law of Cooling, Global Warming and Greenhouse Effect. • Continue working on *solar cooker project.*	**HS-PS3-4** Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).
Tuesday	Notes:	**Objective**: Students will demonstrate understanding of physics concepts of conservation of Heat, Temperature, and Expansion, Heat Transfer, Heat Radiation Heat conduction, including, Temperature and heat are distinguished from each other. The expansion of solids, liquids, and gases. Specific heat capacity leads to the physics of a freezing lake. And radiation is related to Newton's law of cooling. With 80% accuracy as evidenced by completion of thermal physics exam. **Lesson Overview.** • Presentation/Lecture and notes, Chapter 16 Heat transfer. This lecture will cover Temperature, Heat, Specific Heat Capacity, and Thermal Expansion. • Continue working on *solar cooker project.*	**HS-PS3-4** Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).
Wednesday	Notes:	**Objective**: Students will demonstrate understanding of physics concepts of conservation of Heat, Temperature, and Expansion, Heat Transfer, Heat Radiation Heat conduction, including, Temperature and heat are distinguished from each other. The expansion of solids, liquids, and gases. Specific heat capacity leads to the physics of a freezing lake. And radiation is related to Newton's law of cooling. With 80% accuracy as evidenced by completion of thermal physics exam. **Lesson Overview.** • Presentation/Lecture and notes, Chapter 17 Thermodynamics. This lecture will cover Thermodynamics, Absolute Zero, Internal Energy, First Law of Thermodynamics, Adiabatic Processes, Meteorology and the First Law, Second Law of Thermodynamics, Order Tends to Disorder, Entropy. Continue working on *solar cooker project.*	**HS-PS3-4** Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).

Thursday	Notes:	**Objective**: Students will demonstrate understanding of physics concepts of conservation of Heat, Temperature, and Expansion, Heat Transfer, Heat Radiation Heat conduction, including, Temperature and heat are distinguished from each other. The expansion of solids, liquids, and gases. Specific heat capacity leads to the physics of a freezing lake. And radiation is related to Newton's law of cooling. With 80% accuracy as evidenced by completion of thermal physics exam. **Lesson Overview.** • Hewitt video, Change of phase. **Heat:** Change of State The concepts of evaporation and condensation are contrasted. The energy transfer that accompanies changes of state is related to everyday examples. Continue working on *solar cooker project.*	**HS-PS3-4** Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).
Friday	Notes:	**Objective**: Students will demonstrate understanding of physics concepts of conservation of Heat, Temperature, and Expansion, Heat Transfer, Heat Radiation Heat conduction, including, Temperature and heat are distinguished from each other. The expansion of solids, liquids, and gases. Specific heat capacity leads to the physics of a freezing lake. And radiation is related to Newton's law of cooling. With 80% accuracy as evidenced by completion of thermal physics exam. **Lesson Overview.** • Solar oven Prototype test day. • Students will collect data using a table and graph to assess the function of solar ovens over an hour of cooking time. • Iterate as needed to build a successful oven capable of backing a cookie within the allotted class time. • Continue working on *solar cooker project.*	**HS-PS3-4** Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).