October 19-October 23	
ACOS 14	**14. Use models to construct an explanation of how a system of objects may contain varying types and amounts of potential energy (e.g., observing the movement of a roller coaster cart at various inclines, changing the tension in a rubber band, varying the number of batteries connected in a series, observing a balloon with static electrical charge being brought closer to a classmate's hair).** **16. Apply the law of conservation of energy to develop arguments supporting the claim that when the kinetic energy of an object changes, energy is transferred to or from the object (e.g., bowling ball hitting pins, brakes being applied to a car).** **17. Create and manipulate a model of a simple wave to predict and describe the relationships between wave properties (e.g., frequency, amplitude, wavelength) and energy. a. Analyze and interpret data to illustrate an electromagnetic spectrum.**
Learning Targets	Objective SCI.8.13.1: Define kinetic energy and mass. Objective SCI.8.13.2: Illustrate the relationship of kinetic energy to the mass and speed of an object. Objective SCI.8.13.3: Analyze a graph for the relationship between mass and speed of various object. Objective SCI.8.13.4: Identify examples of kinetic energy. Define potential energy. Objective SCI.8.14.2: Calculate the amount of potential energy based on an object's position. Objective SCI.8.14.3: Describe common uses for potential energy in the environment. Objective SCI.8.14.4: Identify potential energy.Objective SCI.8.17.1: Define frequency, amplitude, wavelength, longitudinal, transverse, electromagnetic wave, and electromagnetic spectrum. Objective SCI.8.17.2: Measure the amplitude, wavelength, and frequency of a wave.

	Objective SCI.8.17.3: Diagram the electromagnetic spectrum. Objective SCI.8.17.4: Simulate a longitudinal and transverse wave. Objective SCI.8.17.5: Draw and label the parts of a wave. Objective SCI.8.17.6: Identify different types of waves.
Summary of Task	**Monday**- Students will Watch AMSTI Wave demonstration, Review Energy through viewing, using the foundation powerpoint and schoology video. Quizziz Review **Tuesda**y-Test on Energy, Students will read Notes on waves and do and Note interaction on wave.Powerpoint notes will be presented **Wednesday and Thursday** - A plus college ready notes packet and powerpoint will be presented. Schoology lessons on waves **Friday**- Worksheet on Electromagnetic radiation.
Materials	● Laying the foundation A plus college ready Powerpoint ● Packet on Electricity, Waves and Information Transfer ● Schoology,Chromebook. ● AMSTI investigation materials ● Laying the foundation labs and activities
Assessments	● Calculate Kinetic Energy ● Test on Energy ● Data analysis on roller coaster lab ● Roller Coaster Lab ● Schoology Assignments
Homework	Study for test on Tuesday