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| **Title**  Poster Presentations and Quiz | **Curriculum Area and Grade**  Physics 11th and 12 Grade | **Date**  N/A |

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| **CA Content Standard(s) Addressed**  Content Standard:   * 2. a. Students know how to calculate kinetic energy by using the formula. E = −1/2 mv2. * 2. b. Students know how to calculate changes in gravitational potential energy near Earth by using the formula (change in potential energy) = mgh (h is the change in the elevation). * 2. c. Students know how to solve problems involving conservation of energy in simple systems, such as falling objects. | **CA ELD Standards Addressed**  ELD Standard: English Language Development grades 11-12: Supporting opinions and persuading others   * Emerging: Negotiate or persuade others in conversations. * Expanding; Negotiate or persuade others using a growing number of learner phrases * Bridging: Negotiate or persuade others using a variety of learned phrases. |
| **Big Ideas/Enduring Understandings**  Students will know that work is related to energy and that energy can be transferred but is never lost in a closed system. Therefore, energy is conserved.  Color is expressed in waves of light where the wavelength will affect the color. | **Essential Questions**  What is energy?  How does energy relate to work?  How is energy transferred?  When, if ever, is energy lost?  How does wavelength relate to color?  How does color represent different nations? |
| **Objectives or Learning Goals**  SWBAT present their posters on the color and wavelength of different flags by computing the the values of the colors.  SWBAT perform well on their test by studying before the quiz. | **Assessments**  Formal, Summative- Poster presentation on color and wavelength  Formal, Summative- Quiz on energy |

**Predictions of likely difficulties:**

**Instructional Strategies: Student Activities:**

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| Students will get in their groups and review the material that they are to present.  Students will present their posters and will be graded on their performance.  Students will be given 20 minutes to review for the quiz. I will walk through the class and give aid to those who need it.  Students will keep their notes and book out to be able to use on the quiz. Students will have until the end of the period to complete the quiz. Students may work silently on other homework or reading when they are finished. | Students will gather in their groups and they will review how they want to present their material.  One group will present at a time for 3-5 minutes.  Students will then take out the homework and sample problems that they have been working on and review for the test. They may work individually or in small groups.  Finally, students will take an open book, open note quiz on energy. |

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| **Information About English Language Learners**  No EL students | **Information About Special Needs Students**  Allen- Autistic- Allen is diligent and works hard in class. He will often work ahead and confuse directions. He can be socially awkward and sometimes has difficulty in expressing himself. |
| **Differentiation for English Language Learners**  N/A | **Differentiation for Special Needs Students**  Give clear directions for the quiz. |
| **Resources**  Students will bring their posters with the information on them, students have all the review material for the quiz, students will be given physics books for students to study from, one quiz on potential energy, kinetic energy, and conservation of energy will be administered | **Reflection**  This lesson was not taught |