Unit –E 1 Overview – Energy

|  |  |
| --- | --- |
| **Main Ideas** | **Essential Questions** |
| 1. There are different forms of energy, including potential and kinetic energy. 2. Energy cannot be created or destroyed, only changed from one form to another. | 1. What is the difference between kinetic and potential energy? 2. What are some different forms of kinetic energy? 3. How can you calculate kinetic energy (KE)? 4. What are some different forms of potential energy? 5. How can you calculate gravitational potential energy (GPE)? 6. What is the law of conservation of energy? 7. How are power and energy related? |
| **Skills** | |
| 1. **Distinguish** between kinetic and potential energy 2. **Calculate** kinetic energy. 3. **Describe** different forms of potential energy. 4. **Describe** the law of conservation of energy. 5. **Describe** how energy can be transformed from one form to another. 6. **Explain** how the mechanical energy of a system is the sum of the kinetic and potential energy. | |

|  |
| --- |
| **STANSARDS** |
| * **PSc.3.1 Understand types of energy, conservation of energy and energy transfer.** * PSc.3.1.2 Explain the law of conservation of energy in a mechanical system in terms of kinetic energy, potential energy and heat. |

|  |  |
| --- | --- |
| **Key Vocabulary** | **Review Resources** |
| 1. energy, kinetic energy, potential energy, work, elastic potential energy, chemical potential energy, gravitational potential energy, thermal energy, radiant energy, nuclear energy, joule (J)  2. law of conservation of energy, friction | 1. Key Words - Energy 2. Unit Review - Energy 3. Ppoint - Energy 4. Class Worksheets + Lab Documents |