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| **Grade:** High School | **Course:** Chemistry Honors |
| **Benchmark(s):**  SC.912.P.10.2 Explore the Law of Conservation of Energy by differentiating between open, closed, and isolated systems and explain that the total energy in an isolated system is a conserved quantity. | |
| **Skills – Students should be able to do** | **Concepts – Student should know** |
| **Verbs** | **Nouns** |
| Differentiate systems  Demonstrate conservation of energy | Open, closed, isolated systems  Energy  Energy transformations  Conservation of Energy |
| **Critical Area of Focus based on CTS:**  Heat and Temperature | |
| **Learning Goal:**  SWBAT:  Differentiate between open, closed, and isolated systems  Demonstrate that total energy remains unchanged in an isolated system | |
| **Essential Question for the lesson:**  Why is the law of conservation of energy important? | |
| **Supporting questions for the lesson:**  How can the law of conservation of energy help in determining specific heats?  What does the law of conservation of energy tell us about a calorimeter? | |

This benchmark is used as a supplementary benchmark for each of the three benchmark lessons.