Energy, Resources and Conservation Lesson Overview

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| **Students Learn** | **Lesson** | **Students Do** |
| The four life support systems are: Air, Water, Soil, and Energy. We utilize these life support systems in our daily lives to survive. The life support systems are not in endless supplies and why it is important to preserve and conserve these systems for the future. Green and sustainable are the same thing. | Lesson 1: Life Support Systems | Students focus on what they know and want to know Life Support Systems and how we use them. They will discuss the importance of these systems and analyze ways to preserve these systems for the future. |
| Fossil fuels, including coal, oil, and natural gas, are non-renewable resources. There is a limited supply of non-renewable resources. There are environmental consequences associated with their usage. | Lesson 2: Non-Renewable Energy Resources | Students use an Energy Time line to follow the path of energy from the sun. Students simulate coal mining by mining for chips in cookies.  Students investigate oil spill clean-up through an activity. |
| There are differences between renewable and non-renewable resources in formation, usage, cost, and environmental consequences. A watershed is the area of land that drains into a body of water, such as Lake Erie. The land usage in the watershed has a direct impact on the health of the streams that flow into that body of water. | Lesson 3: Renewable Energy Resources | Students read, discuss, and investigate what renewable resources are and their impact on the environment.  Students build a wind turbine and explore how it works.  Students assemble a solar cell to investigate how they produce energy.  Students play the following high-interest games to learn and review the important concepts: “Really Big Watershed Game”, “Who Wants to Be an Environmentalist?”, and “Environmental Jeopardy”. |
| The Scientific Method is used by many scientists to investigate and solve questions. | Lesson 4: Scientific Method | Students use the Scientific Method to design an energy savings plan. |