Laarman Lesson Plan

Class: Earth Science Unit: Earth’s Resources Standards: ESS3-2

Topic: Energy Sources Debate Date: 2/28/17

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| **Materials, Prep** | Laptops, energy source packets |
| **Procedure** | Student groups prepare for the “Great Energy Debate”-lesson plan found at <http://www.switchenergyproject.com/education/CurriculaPDFs/SwitchCurricula-Secondary-Introduction/SwitchCurricula-Secondary-GreatEnergyDebate.pdf> |
| **Homework** | Be prepared for debate |

Topic: Energy Sources Debate Date: 3/1/17

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| **Materials, Prep** | Game board, judges’ yes and no cards |
| **Procedure** | Students engage in the “Great Energy Debate” |

Topic: Energy Mix Date: 3/2/17

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| **Anticipatory Set**  **-connection, motivation, relevance** | 1. Summarize results of the “Great Energy Debate” 2. Introduce the next task: students are employees at the U.S. Department of Energy and must decide on the ideal mix of energy in the U.S. Groups will form independent of each other to work on the solution, but they are not in competition with each other. The goal is come up with the one best solution as a class. |
| **Procedure** | 1. Student groups generate a list of questions that must be answered in order to answer the big question. Possibilities include:    1. What is the current mix?    2. What are the costs of building new plants of each type?    3. What is the electrical generation capacity of a typical plant of each type?    4. What is the environmental impact of each type of plant (and the means of obtaining the material for each)? 2. Groups report their list of questions to the class 3. After group presentations, decide on a class list of questions to answer 4. Each group is assigned an energy source to research the answers to the questions |

Topic: Energy Mix Date: 3/3/17

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| **Materials, Prep** | Laptop cart |
| **Procedure** | Student groups research their assigned energy sources. |