

Appendix 1: Implementing Teaching Standards

North Carolina Essential Standards

6-8 Science

Note on strands: Physical Science (P) Earth Science (E) Life Science (L)

6th Grade Essential Standard: Energy Conservation and Transfer

6. P.3.0 Understand the characteristics of energy transfer and interactions of matter and energy

6. P.3.3 Explain the suitability of materials for use in technological design based on a response to heat and electrical energy.

Students will look at different types of energy to determine efficiency and scalability for their final presentation on ethical energy usage.

7th Grade Essential Standard: Energy Conservation and Transfer

7. E.1.6 Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.

Students will investigate the various ways that scientists monitor the environment and investigate air quality. The concept of stewardship will be defined as it pertains to ethical energy usage.

8th Grade Essential Standard: Energy Conservation and Transfer

8. P.2 Explain the environmental implications associated with the various methods of obtaining, managing, and using energy

8. P.2.1 Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.

8. P.2.2 Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.

Students will determine the efficacy of using renewable and nonrenewable energy sources when creating their final document.

North Carolina Essential Standards

6-8 Social Studies

Note on strands: History (H) Geography and Environmental Literacy (G) Economics and Financial Literacy (E) Civics and Government (CG) Culture (C)

6th Grade Essential Standard: History

6. H.2 Understand the political, economic and/or social significance of historical events, issues, individuals and cultural groups

6. H.1.2 Summarize the literal meaning of historical documents in order to establish context.

6. H.1.3 Use primary and secondary sources to interpret various historical perspectives

6. H.2.2 Compare historical and contemporary events and understand continuity and change.

6. H.2.3 Explain how innovation and/or technology transformed civilizations, societies and regions over time (e.g. agricultural technology, weaponry, transportation and communication)

Students will look at three different societies: China, U.S. and India to put in context the historical and contemporary background needed for the creation of the ethical energy usage guidelines. Students will analyze historical documents and use primary and secondary sources to create the 8 factors of civilization brochure.

6th Grade Essential Standard: Geography and Environment

6. G.1.2 Explain the factors that influenced the movement of people, goods and ideas and the effects of that movement on societies and regions over time (e.g. scarcity of resources, conquests, desire for wealth, disease and trade.)

6th Grade Essential Standard: Economics and Financial Literacy

6. E.1. Understand how the physical environment and human interaction affected the economic activities of various civilizations, societies and regions.

6. E.1.1 Explain how conflict, compromise and negotiation over the availability of resources (i.e. natural, human and capital) impacted the economic development of various civilizations, societies and regions.

6. E.1.2 Explain how quality of life is impacted by economic choices of civilizations, societies and regions.

Students need to understand how quality of life is impacted by the economic choices of civilizations, societies and regions in order to create their ethical energy use document. Students will analyze the factors that influence movement of people in their 5 themes of geography brochures to help them understand the choices societies make to remain self sustaining.