

Appendix 1: Implementing Common Core Standards

These are the specific North Carolina Essential Science standards that will be taught within this unit:

3.P.3 Recognize how energy can be transferred from one object to another.

3.P.3.1 Recognize that energy can be transferred from one object to another by rubbing them against each other.

3.P.3.2 Recognize that energy can be transferred from a warmer object to a cooler one by contact or at a distance and the cooler object gets warmer.¹

Third Grade Writing Standards:

W.3.7 Conduct short research projects that build knowledge about a topic.

W.3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.²

While I will utilize the concepts of friction, convection, and conduction to show students how energy can be transferred from one object to another, I will also provide students with basic principles about solar, wind, and hydropower energy. Since these forms of energy are being utilized more and more to actually provide electrical energy for homes and businesses today, I would like for my students to discover the practicalities and challenges that our society faces in using these alternative sources of energy.

Since I also teach literacy to my students, I plan to incorporate the following writing standards into this science unit in order to enhance what my students will learn about energy and to give them the opportunity to conduct their own research and present their findings about energy, especially about solar energy, hydropower energy, and wind energy. The students and their families will be able to work together at home if they decide to so while creating their own energy projects such as building a solar house and a solar oven that they can use to test how solar energy can be used in their own household.