



# YALE NATIONAL INITIATIVE

*to strengthen teaching in public schools®*

Curriculum Units by Fellows of the National Initiative  
2013 Volume V: Energy Sciences

---

## **Nihodzaan (Mother Earth)**

Guide for Curriculum Unit 13.05.09, published September 2013

by Jolene Smith

Although the United States is known as the richest nation in the world, we still have issues similar to people in other countries. Globally, nationally, and locally there are educational, environmental, and energy problems. People need to be educationally informed about their environment and how energy can help make their lives better. To remedy this, we need to begin with our children in our classrooms and schools, because they come to us for help, counsel, and for academic discourse. The subject of energy science is way to connect to our children because it incorporates fossil fuels and the renewable energy with Mother Earth (Nihima asdzaan). Mother Earth has the components of respect, reverence, balance, harmony, beauty, power, and wisdom; we need to teach our children so they can have the knowledge of Mother Earth's reverence, balance, harmony, beauty, power, and wisdom. This is when Mother Earth and people will live in Hozho doo haa' ayiih do hodilzin; then environment and energy will not be so challenging. Earth's fossil fuel and renewable energy have their places and can be brought to balance because these resources came from her.

The unit will cover the fossil fuels of coal, petroleum, and natural gas and the renewable resources of sunlight, wind, geothermal, and biofuels. I will introduce my unit at the global level of how the world's resources are extracted from the earth and how the resources are exported and utilized. Then I will move to the national level of how the US extracts transports and uses the resources. Finally moving to the local level on the Colorado Plateau and on the Navajo Reservation, the unit will cover how the locals extract and use the resources. The learning activities will be an extensive hand-on synthesis level of learning where students will create and explain their projects.

The Kayenta Unified School District is located on the Dine Nation in northeastern Arizona. There are approximately 2,200 students from kindergarten through 12<sup>th</sup> grades. The majority of our students are bilingual speaking English and Navajo at home and school. A majority of our students are on the free lunch program at the three school sites (elementary, middle, and high school). About 99% of our students are predominantly American Indians (Navajo a.k.a. Dine').

(Developed for Science, Diné Culture and Language, grade 5; recommended for Science, grades 5-6)

---

<https://teachers.yale.edu>

©2023 by the Yale-New Haven Teachers Institute, Yale University, All Rights Reserved. Yale National Initiative®, Yale-New Haven Teachers Institute®, On Common Ground®, and League of Teachers Institutes® are registered trademarks of Yale University.

For terms of use visit [https://teachers.yale.edu/terms\\_of\\_use](https://teachers.yale.edu/terms_of_use)