

***PETRO POSSE: Practice Everyday To Reduce/Reuse/Recycle
Oil Products at Oklahoma Schools to Save Energy***

Submitted by : *Diana Goodwin, NBCT*

First Grade Teacher

Eufaula Elementary School, Eufaula, OK

Energy curriculum needs to be incorporated into education in order to raise awareness of the importance of conserving fossil fuels in Oklahoma. This should start with very young children, who that, although may not completely understand all the science behind it, can grasp the very basic understanding of saving. If we can instill this “saving” concept about our fossil fuels, then it will result in a long-term practice and results. This concept should not be just taught as a “thematic unit”, but as an *ongoing project*, due to the known amount of waste that occurs in the school setting, which in turn, causes waste of fossil fuels. Additionally, the knowledge gained and practices put in place by students at school from this project will entice them to use these practices in their home and community settings. The educational elements addressed throughout the project are to educate students of what non-renewable resources are, what fossil fuels are and where we get them, the importance of Oklahoma’s Oil and Gas industry to all Oklahoman’s, and to put into practice ways to save energy at school. This project is entitled **PETRO POSSE**, which stands for: **P** Practice **E**veryday **T**o Reduce/Reuse/Recycle **O**il **P**roducts at **O**klahoma **S**chools to **S**ave **E**nergy.

OVERVIEW: It is designed for first grade, but can be easily modified/adapted for other grades.

Students will share with others about what they have learned about conserving Oklahoma’s fossil fuels through multi-media within their school and community. This will include making energy saving posters and writing energy saving tips for the school and community newspaper, but the ultimate project is to create a book called “*PETRO POSSE*”, which will be written and illustrated by the first grade students.

This book will have an Oklahoma/cowboy theme to accompany the “*Posse*” element to attract interest for both the authors and the readers.

PROJECT OBJECTIVES: Students will be able to:

1. Describe where and how we get fossil fuels in Oklahoma.
(Social Studies: 2:2, 2:4, 2:5, Science Process: 4:1-3)
2. Gather and share data about energy and uses of oil products used in their schools.
(Science Process: 3:1-3, Physical Science: 1:1, Math Process: 5:1,2, Math: 5:1,2)
3. Describe ways to conserve energy in their school using language and art.
(Language Arts: Writing 1:1-4, 2:1, 2:5, 3:1-6, Visual Literacy: 1:2)
4. Discuss the impact of using non-renewable resources.
(Social Studies: 3:1)

DESCRIPTION: 1. Students will be given a pre-test of knowledge of energy, fossil fuels, and conservation. 2. Students will participate in at least the first three cycles of the OERB *Fossils to Fuel* program which are “Energy”, “Fish Fossils, and Fuel”, and “It’s a Gas”. Additionally, the OERB film “*Fueless*” will be viewed and discussed. This will lay background information and instill prior knowledge. 3. Students will then prepare a *KWL* (what we *K*now, what we *W*ant to know, what we *L*earned) chart about energy used in their school.

4. Students will investigate in their room and then school, via a walking tour, to write down observations made about energy usage. 5. Students will transfer that information to a master list in the room and then brainstorm ways to save energy by reducing/reusing/recycling (“saving”) and ways to detect waste. 6. Students will prepare their study of waste by using by placing thermometers in various locations of the school, checking for drafts, monitoring paper thrown away (at the copier, workroom, classrooms), monitoring plastic bottles/cans thrown away (from the soda/juice machines), and teacher and student surveys. 7. Students collect data to prepare a list of how to save energy their school based on their findings.

8. Students will update their KWL chart and discuss. 9. Students will be given a post-test of energy, fossil fuels, and conservation. 10. Students will compose a “*Petro Posse*” letter to their principal and/or superintendent, to inform him/her of ways they learned to save in their school, and to solicit his support in energy saving and recycling efforts. 11. Students will making energy saving posters (out of used/recycled paper) to place throughout the school as reminders, and writing energy saving tips called “*Petro Posse Pointers*” for the school and community newspaper. 12. Students will help initiate/monitor a recycling program in their school. , and lastly 13. Students will engage in composing a book, called “*Petro Posse*”, inundated with a Oklahoma/cowboy theme, to share ways with their school about what they have learned about fossil fuels in Oklahoma and their importance, about how fossil fuels are a non-renewable resource, and how everyone can form a “*Posse*” to help conserve energy. (The book will be shared by reading to other classes, presentations at PTA or school board meetings, and kept as a reference at the school library.)

EXTERNAL COLLABORATIONS: Collaborations will be made with the local PTA chapter and the OSU Extension Office to promote and extend the idea of conserving energy in the school, as well as using OERB as an ultimate resource for further trainings and presentations.

SUPPLIES FOR PROJECT: Chart paper and construction paper (preferably recycled), poster board, markers, pencils, colored pencils, hole punches, binding material, thermometers.

MEASUREMENT OF SUCCESS: Students will be given a pre-and post-test of energy, fossil fuels, and conservation to determine understanding of primary knowledge gained and misconceptions. Student’s success will be measured through ongoing observation, their KWL findings, investigative research, composing of master charts, and composing the book (sharing of knowledge). Success will also be noted through extension activities.

EXTENSION ACTIVITIES: A few ideas to present knowledge gained and to share with others include: 1. (Language Arts/Reading/Writing/Art) “*Petro Posse*” book can be made into “chapters”

whereas students target specific topics about saving energy and reduce the use of oil products/non-renewable resources in their school. 2. (Social Skills/Language Arts) Students can read student-made “*Petro Posse*” books to Kindergarten and Pre-School students. 3. (Social Skills/Character) After teaching students about how many crayons are made from oil products, place a used (recycled!) cardboard box in a central location for students to place broken crayons in to be “recycled” by use in the art class or melted together for “fun crayons” or even donated to church children’s classes, youth shelters, or daycares for them to use! (Incorporate math skills by having them count/bundle the crayons for distribution!) 4. (Reading/Arts/Drama) Produce a “*Petro Posse Play*” to present to other classes/grades or at assemblies, or at PTA meetings to note importance of Oklahoma’s Oil and Gas Industry, fossil fuels, and how to save energy/reduce waste in their school. 4. (Social Skills/Character/Environmental Awareness) Have a “*Petro Posse Club*” that meets on a regular basis to brainstorm other ways to conserve energy and reduce the use of oil products/non-renewable resources in the school.