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

From Plants to Horsepower — an Introduction into the World of Oil

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by Arcadia Sloan

My students can easily see the benefits of the oil industry in our state. Students should be able to understand the processes that form petroleum and refine it, so that they have an understanding of why petroleum can be used as liquid fuel energy. This leads to an understanding of why refining petroleum and burning it contributes to an increase of carbon dioxide in the atmosphere and causes other environmental problems. They will also be able to make predictions about which types of fuels are most efficient. This unit incorporates MYP standards and guidelines in a 10th grade Chemistry I class. Activities featured in this unit include balancing equations with colored candies or bingo chips in order to practice coefficients and mole ratios. A group presentation regarding the different types of oil deposits, their location, how they are recovered and the environmental effects is also included. Artistic students are given the opportunity to shine with a poster project describing the different stages of refining and the final assessment of the unit is a 700-1200 word essay.

(Developed for Chemistry I, grade 10; recommended for Chemistry I General and Chemistry I Pre-AP, grade 10)

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