

Introduction to Thermochemistry.

1. Recall the first law of thermodynamics, or the Law of Conservation of Energy.

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| A. How does our use of petroleum reserves connect to that law? | B. Pose 3-5 questions other than A you would like to ask about the petroleum industry, future supply, market, or effects of its use. |

Describe 2-3 examples of energy transformations involving chemical reactions – use technologies or biological examples.

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In this unit, we will learn how to predict energy outputs or requirements of different chemical reactions.

- Think of 2-3 examples of how that kind of knowledge could be useful to chemists or people working in industry. To whom could that kind of knowledge be useful to other than straight-up chemistry professors and researchers?

Recall the events in a chemical reaction, like the exothermic combustion of methane. Use a balanced chemical equation, potential energy graphs, and energy ideas related to bond breaking and bond formation. Connect to the idea of why atoms react.

Use a concept map or other visual organizer and examples, illustrations, and definitions to show how the following ideas are related:

- Energy, work, potential energy, kinetic energy, nuclear potential, electric potential, chemical potential, thermal energy, heat, temperature, thermal energy, exothermic, endothermic and a couple of other terms you'd like to connect to these as well