

Physical vs. Chemical Properties

Let's Practice!

Which of the following is a physical change?

- grinding a rock into powder
- hydrogen and oxygen reacting to form water
- a shovel rusting
- an acid and base reacting to form water
- burning sugar

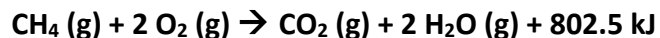
Which of the following is a chemical change?

- melting aspirin
- breaking a plate
- boiling antifreeze
- putting sugar in tea
- lighting a match

Heat: Quantitative Measurement

Let's Practice!

Methane (CH₄) is the major compound in natural gas. Using the reaction below, determine the amount of energy produced during combustion (in calories).



Specific Heat Capacity

Let's Practice!

How much heat is needed to raise the temperature of 200. g of water by 10.0 °C?

Specific Heat Capacity

Let's Practice!

Calculate the specific heat (J/g°C) of an unknown if 1638 J raises the temperature of 125 g from 25.0 °C to 52.6 °C.