

Problem:

What is the amount of energy needed to heat up 2kg of potatoes from 20C to 100C? (SHC of potato - 4000J/kgC.

Solution:

The amount of energy needed is:

$$Q = c * m * \Delta T = 4000 \frac{J}{kg * C} * 2 kg * (100 - 20)C = 640 kJ$$

Answer: $Q = 640 kJ$.