

**EXERCISES:**

1. Find the energy required to convert 500 grams of water at 25°C into steam at 110°C.
2. Calculate the heat needed to raise the temperature of 1.5 kg of aluminum from 20°C to 90°C.
3. Determine the energy required to melt 2.5 kg of lead at 327°C.
4. Find the amount of heat needed to increase the temperature of 700 grams of mercury from 15°C to 35°C.
5. Calculate the energy required to convert 4.5 kg of ice at -10°C into water at 40°C.
6. Determine the heat needed to raise the temperature of 800 grams of gold from 30°C to 80°C.
7. Find the amount of energy required to melt 2.8 kg of iron at 1538°C.