

6 Heat, enthalpy, and calorimetry – Part 1 —Answers

Answers

Work through these after you have tried the questions yourself.

2.1 negative ΔH , and it feels hot (it releases heat to the surroundings).

2.2 $q = mc \Delta T = 200 \times 4.18 \times 5.0 = 4.2 \times 10^3 \text{ J}$.

2.3 $q = mc \Delta T = 150 \times 4.18 \times 6.0 = 3.8 \times 10^3 \text{ J}$; the reaction released about 3.8 kJ.

2.4 the temperature stays constant, because the heat goes into breaking the forces between particles rather than raising their kinetic energy.

2.5 endothermic (it absorbs heat from its surroundings, making them cold).