

The Three Formulas:

Used to calculate energy change during:

1. $q = mC_p\Delta T$

temperature change

2. $q = mH_f$

melting or freezing

3. $q = mH_v$

boiling or condensing

The variables stand for:

q = quantity of heat m = mass C_p = Specific Heat Capacity C_p of Water = 4.18 J/gC

H_f = heat of fusion H_v = heat of vaporization ΔT = change in temperature

C_p of Water = 4.18 J/gC H_f of water = 334 J/g H_v of water = 2260 J/g

Problems:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10

11.

12

13.

14

15

16