Points to note:-

* Density of water is maximum at 4°C
* **Principle of calorimetry:-**
  It states that total heat lost by hot objects equals the total heat received by cold objects.
  It is based on conservation of energy

* For any state of matter (solid, liquid or gas)
  → Only state change and temperature same } $Q = mL$

  → Only temperature change and state remain same } $Q = mS\Delta T$

* $1\ cal = 4.2\ J = 4.2 \times 10^7\ ergs$ (cgs unit)

* In general, heavier the element, lesser the specific heat.
  e.g- $S_{Hg} < S_{Cu} < S_{Al}$

* **Water equivalent of a substance:-** (W)
  Amount of water having same heat capacity as that of the substance
  $\therefore W = \left(\frac{ms}{4200}\right) kg.$