Temperature

Cambridge International AS & A Level Physics

> *Unlike IGCSE, 9702 gives you a data sheet: it is page 2 of Papers 1, 2 and 4, with more formulae on page 3 of Paper 4. Everything marked GIVEN is printed for you; everything else you must recall. Compiled by GioPhysics from the published syllabus. This is an independent study aid, not a Cambridge document; the official syllabus is the authority.*

14.2 Temperature scales

A LEVEL

Kelvin and Celsius

$$T / K = \theta / °C + 273.15$$

- T — thermodynamic temperature (K)
- θ — temperature (°C)

273.15 here, where IGCSE uses 273.

14.3 Specific heat capacity and specific latent heat

A LEVEL

Specific heat capacity

$$E = mc\Delta\theta$$

- E — energy supplied (J)
- m — mass (kg)
- c — specific heat capacity (J kg^{-1} K^{-1})
- Δθ — temperature change (K or °C)

A LEVEL

Specific latent heat

$$E = mL$$

- E — energy supplied (J)
- m — mass changing state (kg)
- L — specific latent heat (J kg^{-1})

Not examined at IGCSE; it appears here.