

PHYSICS AS 90939
Demonstrate understanding of aspects of heat
Level 1, 4 Credits

This achievement standard involves demonstrating understanding of aspects of heat and may include using methods when solving related problems.

- temperature
 - definition
 - units
- heat energy
- heat transfer
 - conduction (in solids & liquids)
 - convection (in fluids – liquids & gases)
 - radiation
- insulation
- specific heat capacity
 - the heat energy required to raise the temperature of 1 kg of a substance by 1°C
 - units for specific heat capacity
 - the relationship $Q = mc\Delta T$
 - that differing specific heat capacities of materials allow for their particular practical applications
- states of matter
 - solid
 - liquid
 - gas
- phase changes
 - latent heat
 - that heat energy is used to bring about a change of state rather than a temperature rise
 - the relationship $Q = mL$
- calculation of power; the relationship $P = E/T$