

**Thermal Energy Transfer****Checklist statement**

I can explain internal energy as the sum of the randomly distributed kinetic and potential energies of the particles in a body.



I can explain how the internal energy of a system increases when energy is transferred to it by heating or when work is done on it.



I can explain how the internal energy of a system decreases when energy is transferred from it by heating or when work is done by the system.



I can describe the first law of thermodynamics qualitatively.



I can explain what happens to the energies of particles during a change of state.



I can explain why, during a change of state, potential energy changes but kinetic energy does not.



I can carry out calculations involving the transfer of thermal energy.



I can apply $Q = mc\Delta\theta$, define all terms and know their standard units.



I can apply calculations involving continuous energy transfer.



I can apply $Q = ml$, define all terms and know their standard units.

