

**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.