GES YEAR 10 PHYSICS

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| TOPIC: Thermal Effects |

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| Theme: describe the effect heat has on the physical behaviour of matter. | Level: Year 10 |
| Objectives: Appreciate the relationship between heat and the activity of all matter in the universe. |

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| Focussing Questions | Key Words Practical |
| 1. **Thermal Effects**
* Particle movement
* Solids, liquids and gases
* Brownian motion
* Energy of particles
* Measuring heat
* The Celsius scale
* Thermometers
* What is temperature?
* The Kelvin scale
* Fixing a temperature scale
* Liquid in glass thermometers
* Expansion of liquids and solids
* Comparing expansions
* Water and ice
* Heating gas

How pressure changes with temperature* Conduction, convection & radiation
* Conductors and insulators
* Convection currents
* Emitters and absorbers
* Specific heat capacity
* Thermal capacity
* Latent heat
* Latent heat of fusion
* Latent heat of vapourisation

AssessmentTextbook questionsPreparation of experimentsPractical techniquesEnd of unit test constructed from past paper questions | Kinetic theoryBondsBrownian motionInternal energyThermal energyCelcius scaleThermometerAbsolute zeroKelvin scaleCalibratingSensitivityRangeResponsivenessLinearityThermal expansionBimetal stripThermostatConductorInsulatorFree electronsConvection currentElectromagnetic wavesGreenhouse effectThermal capacityFusionVapourisation | Observing Brownian motionCalibrating a thermometerMaking a thermostatMeasuring conductivity of waterGenerating a convection currentMeasuring radiationMeasuring specific latent heat |

**Textbooks and worksheets**