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   Assessment Textbook questions  Preparation of experiments  Practical techniques  End of unit test constructed from past paper questions | Kinetic theory  Bonds  Brownian motion  Internal energy  Thermal energy  Celcius scale  Thermometer  Absolute zero  Kelvin scale  Calibrating  Sensitivity  Range  Responsiveness  Linearity  Thermal expansion  Bimetal strip  Thermostat  Conductor  Insulator  Free electrons  Convection current  Electromagnetic waves  Greenhouse effect  Thermal capacity  Fusion  Vapourisation | Observing Brownian motion  Calibrating a thermometer  Making a thermostat  Measuring conductivity of water  Generating a convection current  Measuring radiation  Measuring specific latent heat |

**Textbooks and worksheets**