

IB Physics Topic B1 Thermal Energy Transfers; SL & HL

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1 Phases of Matter

Phase	Shape	Volume	Distance Between Particles	Ease of Compression
Solid	Fixed	Fixed	Very close	Very difficult
Liquid	Not fixed	Fixed	Close	Difficult
Gas	Not fixed	Not fixed	Far apart	Easy

Table 1: Comparison of properties of the three phases of matter

2 Temperature and Energy

3 Conduction

4 Convection

5 Thermal Radiation

6 Black Body Radiation

6.1 The Emission Spectrum

6.2 Wien's Displacement Law

6.3 Stefan-Boltzmann Law

6.4 Observational Astronomy

6.5 Apparent Brightness