S5 Proposed Program for Physics 2012-2013

MECHANICS (Dynamics)

- equilibrium
- motion of body in equilibrium
- motion of qa body under a steady force
- free fall under gravity
- mutual nature of a force
- kinetic energy

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ELECTRICITY

- resistance; basic notions
- ohmic resistors
- resistance in circuits
- factors determining resistance
- non-ohmic resistance
- circuit applications of non-ohmic components

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MAGNETISM & ELECTROMAGNETISM

- permanent magnets
- magnetic field of a current
- electromagnetic force
- electromagnetic induction

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HEAT

- basic notions
- specific heat capacity
- latent heat
- molecular theory

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WAVES & VIBRATIONS

- basic notions
- wave characteristics
- wave properties
- resonance
- diffraction