Physics

1. Motion and force
   - Distance and displacement, speed and velocity, acceleration
   - Kinematic equations
   - Balanced forces
   - Newton's laws of motion
   - The effects of friction
   - Work, energy and power
   - Conservation laws
   - Momentum and impulse

2. Electric charge at work
   - Electric charge and electric fields
   - Electric current, potential difference, energy transfer and resistance
   - Ohm's law and I-V characteristics
   - Series and parallel circuits
   - Permanent magnets and magnetic field
   - Electromagnetic induction

3. Thermal physics
   - The states of matter
   - The meaning of "temperature"
   - Internal energy
   - Pressure
   - The gas laws and kinetic theory
   - Changes of state and specific latent heat
   - Changes of temperature and specific heat capacity