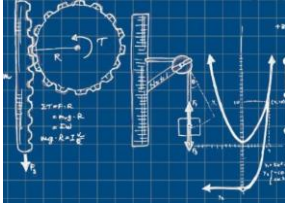
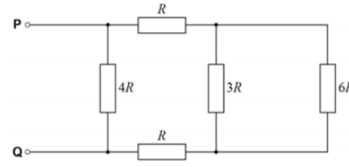


Year Group: 12Phys Learning Journey



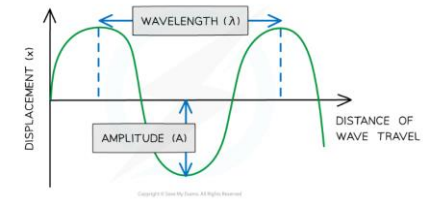
1. Mechanics

- Forces
- Newtons' Laws
- Moments
- Projectile motion
- Momentum
- Energy & Work



2. Electricity

- Circuits
- Resistance
- Resistivity
- I-V characteristics
- Power
- Emf
- Potential dividers

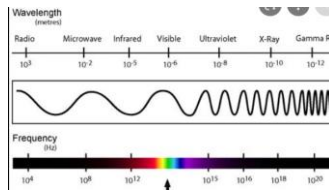


3. Waves

- Wave characteristics
- Stationary waves
- Diffractions
- Interference
- Refraction

6. Electromagnetic Radiation and Quantum Phenomena

- Photoelectric effect
- Energy Levels in atoms
- Wave-particle duality

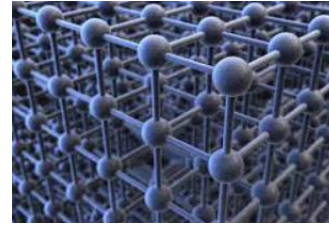


Mock Exams



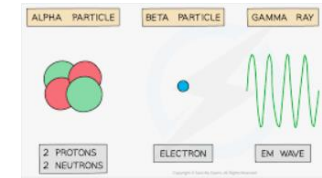
5. Materials

- Density
- Hooke's Law
- Stress & Strain
- Young Modulus



4. Particles and Radiation

- Nuclei
- Antiparticles
- Photons
- Hadrons & Leptons
- Quarks

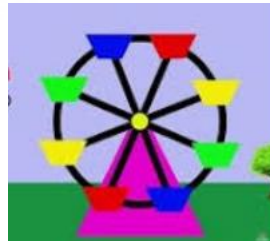


Mock Exams



7. Circular Motion

- Characteristics
- Centripetal force
- Centripetal acceleration

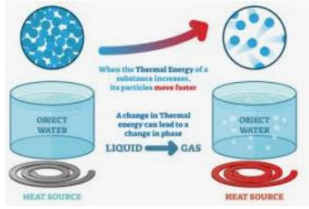


8. Simple Harmonic Motion

- SMH characteristics
- Mass-Spring System
- Simple Pendulum
- Free & forced vibrations

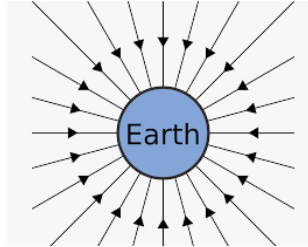


Year Group: 13Phys Learning Journey



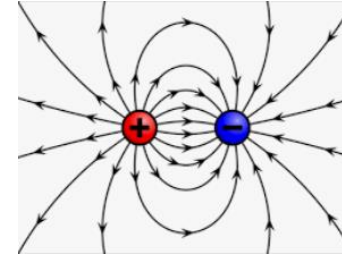
1. Thermal Physics

- Gas Laws
- Ideal gas
- Kinetic theory
- Kinetic Energy



2. Gravitational fields

- Forces
- Field strength
- Potential
- Orbits



3. Electric fields

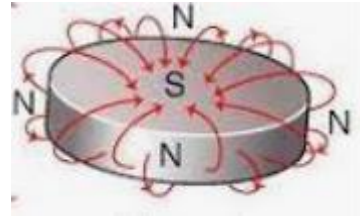
- Forces
- Field strength
- Potential
- Comparing fields

Mock Exams



5. Magnetic fields

- Flux density
- Forces
- Induction
- Flux linkage
- Faraday's Law
- Lenz's Law
- AC current



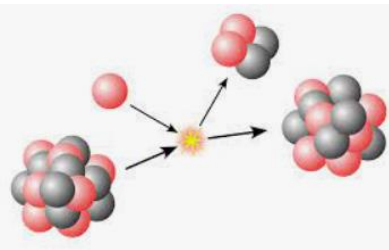
4. Capacitors

- Energy stored
- Dielectrics
- Charging & discharging
- Time constant & time to halve



6. Nuclear Physics

- Rutherford scattering
- Nucleus
- Radiation properties
- Background radiation
- Half life
- Nuclear Decay
- Binding energy
- Fission & fusion
- Nuclear reactors



7. Astrophysics

- Telescopes
- Magnitude
- Spectral class
- Cosmology

Mock Exams

