AQA GCSE Physics Oxford Text Book

Higher Tier Only Content is Shown in Red
Where part of a spread is higher it is shown in brackets

P1 Conservation and dissipation of energy
1. Changes in energy stores
2. Conservation of energy
3. Energy and work
4. Gravitational potential energy stores
5. Kinetic energy and elastic energy stores
6. Energy dissipation
7. Energy and efficiency (Improving efficiency)
8. Electrical appliances
9. Energy and power

P2 Energy transfer by heating
1. Energy transfer by conduction
2. Infrared radiation
3. More about infrared radiation
4. Specific heat capacity
5. Heating and insulating buildings

P3 Energy resources
1. Energy demands
2. Energy from wind and water
3. Power from the Sun and the Earth
4. Energy and the environment
5. Big energy issues

P4 Electric circuits
1. Electrical charges and fields
2. Current and charge
3. Potential difference and resistance
4. Component characteristics
5. Series circuits
6. Parallel circuits

P5 Electricity in the home Alternating current
1. Cables and plugs
2. Electrical power and potential difference
3. Electrical currents and energy transfer
4. Appliances and efficiency

P6 Molecules and matter
1. Density
2. States of matter
3. Changes of state
4. Internal energy
5. Specific latent heat
6. Gas pressure and temperature
7. Gas pressure and volume (Work done compressing gas)

P7 Radioactivity
1. Atoms and radiation
2. The discovery of the nucleus
3. Changes in the nucleus
4. More about alpha, beta, and gamma radiation
5. Activity and half-life (Half-life calculations)
6. Nuclear radiation in medicine
7. Nuclear fission
8. Nuclear fusion
9. Nuclear issues

P8 Forces in balance
1. Vectors and scalars
2. Forces between objects
3. Resultant forces (Force diagrams)
4. Moments at work
5. More about levers and gears
6. Centre of mass
7. Moments and equilibrium
8. The parallelogram of forces
9. Resolution of forces

P9 Motion
1. Speed and distance–time graphs
2. Velocity and acceleration (Circular motion)
3. More about velocity–time graphs
4. Analysing motion graphs (Gradients and Areas)

P10 Force and motion
1. Forces and acceleration (Inertia)
2. Weight and terminal velocity
3. Forces and breaking ($v^2 = u^2 + 2as$)
4. Momentum
5. Using conservation of momentum
6. Impact forces
7. Safety first
8. Forces and elasticity

P11 Force and pressure
1. Pressure and surfaces
2. Pressure in a liquid at rest
3. Atmospheric pressure ($p = h\rho g$)
4. Upthrust and flotation

P12 Wave properties
1. The nature of waves
2. The properties of waves
3. Reflection and refraction
4. More about waves
5. Sound waves
6. The uses of ultrasound
7. Seismic waves

P13 Electromagnetic waves
1. The electromagnetic spectrum
2. Light, infrared, microwaves, and radio waves
3. Communications (Generation of radio waves)
4. Ultraviolet rays, X-rays, and gamma rays
5. X-rays in medicine (Suitability of X-rays)

P14 Light
1. Reflection of light
2. Refraction of light
3. Light and colour
4. Lenses
5. Using lenses

P15 Electromagnetism
1. Magnetic fields
2. Magnetic fields of electric current
3. Electromagnets
4. The motor effect
5. The generator effect
6. The alternating-current generator
7. Transformers
8. Transformers in action

P16 Space
1. Formation of the Solar System
2. The life history of a star
3. Planets, satellites, and orbits (Circular orbits)
4. The expanding Universe
5. The beginning and future of the Universe