

WHSB PHYSICS MIDDLE SCHOOL CURRICULUM MAP



LOWER SCHOOL PRIOR LEARNING INFORMS

YEAR 10

1	<p>CONTENT Conservation and dissipation of energy Energy transfer by heating Energy resources Electric circuits</p> <p>SKILLS Investigating thermal insulators Determining Specific Heat Capacity Measuring Resistance</p>	<p>3 Topic Tests 2 Required Practicals</p>
	<p>CONTENT Electricity in the home Molecules and matter Radioactivity</p> <p>SKILLS Investigating electrical components Investigating resistance Measuring densities</p>	<p>3 Topic Tests 3 Required Practicals</p>
	<p>CONTENT Forces in balance Motion Force and motion</p> <p>SKILLS Adding and resolving vectors</p>	<p>3 Topic Tests</p>

YEAR 11

1	<p>CONTENT Force and pressure Wave properties Electromagnetic waves</p> <p>SKILLS Investigating Newton's Second Law Investigating Hooke's Law Using a ripple tank to investigate waves Investigating infrared radiation</p>	<p>4 Topic Tests 4 Required Practicals</p>
	<p>CONTENT Light Electromagnetism Space</p> <p>SKILLS Investigating reflection and refraction</p>	<p>3 Topic Tests 1 Required Practicals</p>
	<p>CONTENT Revision</p>	<p>Exam past paper practice Final GCSE Examinations</p>

GCSE EXAMINATION BOARD:
AQA

LINKS TO A LEVEL STUDY:

<p>GCSE Conservation of energy Energy transfer by heating Energy resources Electricity in the home Molecules and matter Radioactivity Forces in balance Motion Force and motion Force and pressure Wave properties Electromagnetic waves Light Electromagnetism</p>	<p>A-LEVEL All areas Thermal physics Work, energy and power Alternating currents Gases, materials Radioactivity and nuclear Statics Kinematics Dynamics Dynamics, materials, gases Waves Quantum phenomena Optics Electromagnetic induction</p>
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ENRICHMENT OPPORTUNITIES:

Engineering society
Junior Physics Challenge
Intermediate Physics Challenge
GCSE Astronomy, AI&ML clubs




WHSB PHYSICS SIXTH FORM CURRICULUM MAP

MIDDLE SCHOOL PRIOR LEARNING INFORMS

LOWER SIXTH

1	<p>CONTENT Matter and radiation Quarks and leptons Quantum phenomena Electric current Kinematics Dynamics</p> <p>SKILLS Measuring using light gates Measuring resistivity</p>	 6 Topic Tests 2 Required Practicals
2	<p>CONTENT Direct current circuits Work, energy, and power Materials Statics Waves</p> <p>SKILLS Measuring internal resistance Measuring Young's modulus Investigating stationary waves</p>	 5 Topic Tests 2 Required Practicals
3	<p>CONTENT Circular motion Simple harmonic motion Optics Thermal physics Gases</p> <p>SKILLS Investigating simple harmonic motion Investigating optical diffraction Investigating gas laws</p>	 6 Topic Tests 4 Required Practicals

UPPER SIXTH

1	<p>CONTENT Gravitational fields Electric fields Radioactivity Nuclear energy</p> <p>SKILLS Handling radioactive sources safely</p>	 5 Topic Tests 4 Required Practicals
2	<p>CONTENT Capacitors Magnetic fields Electromagnetic induction Alternating currents The discovery of the electron Wave particle duality Special relativity</p> <p>SKILLS Investigating capacitors Measuring flux density Investigating flux linkage</p>	 2 Topic Tests
3	<p>CONTENT Revision</p> <p>SKILLS Examination techniques</p>	 Exam past paper practice Final A Level Examinations

A LEVEL EXAMINATION BOARD:

AQA

PREPARATION FOR UNIVERSITY AND CAREERS

Acoustic engineer	Geologist
Aeronautical engineer	Journalist
Agricultural engineer	Laboratory technician
Air traffic controller	Marine engineer
Airline pilot	Mathematician
Archaeologist	Mechanical engineer
Architect	Medical physicist
Astronomer	Meteorologist
Audio engineer	Naval architect
Broadcasting	Nuclear scientist
Cartographer	Oceanographer
Chartered surveyor	Operational researcher
Civil engineer	Patent agent
Climatologist	Patent examiner
Clinical scientist	Pharmacist
Computer scientist	Radiation protection
Designer	Radiographer
Doctor	Research scientist
Electrical engineer	Scientific officer
Environmental scientist	Space scientist
Forensic scientist	Teacher
Gas engineer	Transport engineer
	Water management engineer

ENRICHMENT OPPORTUNITIES:

- Engineering society
- Senior Physics Challenge
- British Physics Olympiad
- Beamline for Schools
- GCSE Astronomy, AI&ML clubs
- CERN, Sizewell B trips