	Y12	Y1			
Week 1 w/b 5 th Sept	<u>Topic 1: Working as a Physicist</u> Lesson 1: Course outline (key command words), working as a scientist, uncertainty experiments Lesson 2: Setting in test 1 notes, transition work – complete model answers (green pen), units – derived & base Lesson 3: Order of magnitude & Fermi questions	<u>Topic 9: Thermodynamics</u> Lesson 1: Settling in/recap work from July (U & Q & W) Lesson 2: rms calculations, Specific heat capacity, Specific I Lesson 3: Plan CPAC12 Thermistor experiment Lesson 4: Black body radiation			
Key Words	Base quantities, derived quantities, validation, integrity, communication, community, vectors, scalars, Fermi questions	SHC, SLH, temperature, heat, thermal energy, internal ene			
Common Misconceptions	All quantities are base (non-derived)	SHC is the amount of thermal energy held SLH is the amount of thermal energy released			
Homework	Textbook and exam questions	Textbook and exam questions			
Assessment this half-term	Settling in tests, definitions test, CPAC2	Thermodynamics topic test, definitions tests & CPAC12; 13			
Career opportunities Employment Links	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. <u>https://www.iop.org/careers-physics</u>	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. <u>https://www.iop.org/careers-physics</u>			
Employability Skills	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive			
Week 2	Tonic 1: Working as a Physicist & Tonic 3: Electric Circuits	Topic 9: Thermodynamics			
w/b 12 th Sept	Lesson 1: Settling in test 1, settling in test 2 notes, significant figures & plotting graphs Lesson 2: Recap electricity modelling, current, conductors & insulators Lesson 3: Question sheets to complete (intro 3, electric current & current and voltage) Lesson 4: Conduction in liquid/gas comparison, recap charge & current & drift Lesson 5: Settling in test 2, settling in test 3 notes, convert measurements Lesson 6: Question sheet to complete (intro 4) & complete green pen model answer corrections	Lesson 1: Conduct CPAC12 Thermistor experiment Lesson 2: Write up/analyse CPAC12 Thermistor experimen Lesson 3: Recap gas laws (Boyle's & Charles' & Pressure) & Lesson 4: Conduct experiment – specific latent heat of ice Lesson 5: Plan CPAC13 Specific latent heat of ice Lesson 6: Recap ideal gas & calculations Lesson 7: Recap the gas laws & calculations			
Key Words	Significant figures, limitations, conductor, insulator, charge, current & drift	Thermistor, inversely proportional, changes of state, coolir			
Homework	Textbook and exam questions	Textbook and exam questions			
Assessment this half-term	Settling in tests, definitions test, CPAC2	Thermodynamics topic test, definitions tests & CPAC12; 13			
Career opportunities Employment Links	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. <u>https://www.iop.org/careers-physics</u>	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. <u>https://www.iop.org/careers-physics</u>			
Employability Skills	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive			
Notes / developments / standardisation comments	Discussion idea points – modelling electric circuits. Full Edexcel specification topic list for A level Physics available at: Specification - A level (pearson.com)	Thermistor calibration experiment – ice/water & Bunsen b CPAC write up to be completed in study periods Full Edexcel specification topic list for A level Physics availa <u>Specification - A level (pearson.com)</u>			

13

latent heat

ergy, absolute zero, microscopic, macroscopic

3; 14, 9 & 10

nt & ideal gas with immersion heater

ng curve

3; 14, 9 & 10

burner

able at:

Week 3 w/b 19 th Sept	<u>Topic 3: Electric Circuits</u> Lesson 1: Settling in test 2, recap circuit building (series & parallel) experiment Lesson 2: Electric circuits NHTW definitions, I=nAve, current & drift velocity Lesson 3: Charge & current calculations Lesson 4: Drift velocity calculations Lesson 5: Kirchhoff's 1 st law, EMF, energy transfer & PD Lesson 6: EMF & PD calculations	Topic 9: Thermodynamics & Topic 12: Gravitational Fields Lesson 1: Conduct CPAC13 specific latent heat of ice Lesson 2: Write up/analyse CPAC13 specific latent heat of i Lesson 3: Plan CPAC14 Boyle's Law Lesson 4: Conduct CPAC14 Boyle's Law Lesson 5: Write up/analyse CPAC14 Boyle's Law Lesson 6: Thermodynamics end of topic test Lesson 7: Gravitational forces & gravitational fields
Key Words	Current, charge, coulomb, ampere, conservation, Electromotive force	Changes of state, cooling curve, proportionality, force, field
Homework	Textbook and exam questions	Textbook and exam questions
Assessment this half-term	Settling in tests, definitions test, CPAC2	Thermodynamics topic test, definitions tests & CPAC12; 13
Life skills Career opportunities Employment	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. https://www.iop.org/careers-physics	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. <u>https://www.iop.org/careers-physics</u>
Employability Skills	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive
Week 4 w/b 26 th Sept	<u>Topic 3: Electric Circuits</u> Lesson 1: Electric circuits NHTW definitions test, Resistance, Ohm's Law, resistors connected in series & in parallel Lesson 2: Calculate total resistance of circuits, recap resistance graph shapes (diode, thermistor, bulb, wire) Lesson 3: Experiment – investigate resistance of a filament lamp Lesson 4: Thermistor & diode, plotting graphs, superconductivity Lesson 5: Power calculations Lesson 6: Resistivity calculations	Topic 12: Gravitational Fields; Topic 9: Thermodynamics & Lesson 1: Thermodynamics end of topic test green pen mo Lesson 2: Gravitational forces & gravitational fields calculat Lesson 3: Gravitational forces & gravitational fields calculat Lesson 4: Thermodynamics NHTW definitions Lesson 5: Linear momentum, types of collisions Lesson 6: Momentum conservation, impulse & recap Newt Lesson 7: Particle momentum & calculations
Key Words	Resistance, series, parallel, directly proportional, Ohmic, non-Ohmic, superconductivity	Internal energy, heat, temperature, force, field, proportion
Homework	Textbook and exam questions	Textbook and exam questions
Assessment this half-term	Settling in tests, definitions test, CPAC2	Thermodynamics topic test, definitions tests & CPAC12; 13
Career opportunities Employment Links	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. <u>https://www.iop.org/careers-physics</u>	LIFE SKILLS: Numeracy and problem solving EMPLOYMENT: Foundation skill for any physics related job. <u>https://www.iop.org/careers-physics</u>
Employability Skills	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive	Aiming highLiteracyCreativityNumeracyLeadershipIndependenceListeningCommunicationPresentingTeamworkProblem solvingStaying positive
Week 5 w/b 3 rd Oct	Topic 3: Electric Circuits Lesson 1: Formula quiz; PD, resistance & resistivity calculations Lesson 2: Current electricity calculations Lesson 3: Resistance calculations	Topic 9: Thermodynamics; Topic 12: Gravitational Fields & Lesson 1: Thermodynamics NHTW definitions test & air tra Lesson 2: Gravitational forces & gravitational fields NHTW Lesson 3: Energy loss calculations

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3; 14, 9 & 10

Topic 6: Further Mechanics odel answers ations ations

ton's laws of motion (I, II & III)

nality, momentum, elastic, inelastic, collision

3; 14, 9 & 10

& <u>Topic 6: Further Mechanics</u> ack investigations (momentum & KE) / definitions & momentum calculations

	Lesson 4: Introduce CPAC layout – purpose & expectations	Lesson 4: Newton's Laws of motion calculations
	Lesson 5: Plan CPAC 2 Resistivity	Lesson 5: Plan CPAC9 Force/change of momentum
	Lesson 6: Plan CPAC 2 Resistivity	Lesson 6: Conduct CPAC9 Force/change of momentum
		Lesson 7: Momentum calculations
Key Words	Resistivity, SWG, hypothesis	Internal energy, heat, temperature, force, field, proportion
Homework	Textbook and exam questions	Textbook and exam questions
Assessment this	Settling in tests, definitions test, CPAC2	Thermodynamics topic test, definitions tests & CPAC12; 13
half-term		
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
Employment Links	https://www.iop.org/careers-physics	https://www.iop.org/careers-physics
Employability	Aiming high Literacy	Aiming high Literacy
Skills	Creativity Numeracy	Creativity Numeracy
	Leadership Independence	Leadership Independence
	Listening Communication	Listening Communication
	Presenting Teamwork	Presenting Teamwork
	Problem solving Staying positive	Problem solving Staying positive
Week 6	Topic 3: Electric Circuits	Topic 12: Gravitational Fields & Topic 6: Further Mechanics
w/b 10 th Oct	Lesson 1: Conduct CPAC 2 Resistivity experiment	Lesson 1: Gravitational forces & gravitational fields NHTW
	Lesson 2: Electric circuit calculations	relativistic particles
	Lesson 3: Potential divider	Lesson 2: Energy calculations
	Lesson 4: Electric circuit calculations	Lesson 3: Force calculations
	Lesson 5: Recap EMF & PD	Lesson 4: Plan CPAC10 Ball bearing collisions
	Lesson 6: Exam question booklet D - Electricity	Lesson 5: Conduct CPAC10 Ball bearing collisions
		Lesson 6: Angular displacement, angular velocity, linear ve
		Lesson 7: Cyclotron, angular time period & frequency
Key Words	Resistivity, charge carrier, drift velocity, uniform	Force, field, conservation, energy, types of particle (relativ
Homework	Textbook and exam questions	Textbook and exam questions
Assessment this half-term	Settling in tests, definitions test, CPAC2	Thermodynamics topic test, definitions tests & CPAC12; 13
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job	EMPLOYMENT: Foundation skill for any physics related job
Employment	https://www.ion.org/caroors.physics.	https://www.iop.org/caroors.phycics
Links	<u>inteps.//www.iop.org/careers-physics</u>	nttps://www.iop.org/careers-physics
Employability	Aiming high Literacy	Aiming high Literacy
Skills	Creativity Numeracy	Creativity Numeracy
	Leadership Independence	Leadership Independence
	Listening Communication	Listening Communication
	Presenting Leamwork	Presenting Leamwork
	Problem solving Staying positive	Problem solving Staying positive
Week /	<u>I opic 3: Electric Circuits</u>	Topic 6: Further Mechanics
w/b 17" Oct	Lesson 1: Assess exam question booklet D - Electricity	Lesson 1: Circular motion questions
	Lesson 2: Green pen model answers exam question booklet D - Electricity	Lesson 2: Centripetal acceleration
	Lesson 3: Internal resistance, circuit equations	Lesson 3: Centripetal force & circular motion factors
	Lesson 4: Power, Current & Voltage calculations	Lesson 4: Investigate circular motion (bung)
	Lesson 5: Plan CPAC3 Internal resistance	Lesson 5: Analyse circular motion (graph plotting to detern
	Lesson 6: Plan CPAC3 Internal resistance & revise for end of topic test	Lesson 6: Banking, motion in vertical circles
		Lesson 7: Circular motion questions
Key Words	Internal resistance, cell	

nality, collision, conservation

3; 14, 9 & 10

/ test, momentum, work & energy, derive KE, non-

elocity

vistic & non-relativistic), collisions, angular, linear

3; 14, 9 & 10

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Homework	Textbook and exam questions	Textbook and exam questions				
Assessment this half-term	Settling in tests, definitions test, CPAC2	Thermodynamics topic test, definitions tests & CPAC12; 13				
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving				
opportunities	EMPLOYMENT: Foundation skill for any physics related job	EMPLOYMENT: Foundation skill for any physics related job				
Employment						
Links	<u>nttps://www.iop.org/careers-physics</u>	https://www.iop.org/careers-physics				
Employability	Aiming high Literacy	Aiming high Literacy				
Skills	Creativity Numeracy	Creativity Numeracy				
	Leadership Independence	Leadership Independence				
	Listening Communication	Listening Communication				
	Presenting	Presenting Teamwork				
	Problem solving Staving positive	Problem solving Staving positive				
Mask 0	Tania 2. Electric Circuita 8. Tania 5. Maura and Particle Nature of Light	Tauja Mash ayan fartujaht				
Week 8	Topic 3: Electric Circuits & Topic 5: Waves and Particle Nature of Light	Topic: Mock exam fortnight				
w/b 31 st Oct	Lesson 1: Electric circuits end of topic test	Lesson 1: Mock Exam				
	Lesson 2: Wave introduction – types, feature, motion	Lesson 2: Mock Exam				
	Lesson 3: Electromagnetic waves – types, production, uses, dangers	Lesson 3: Mock Exam				
	Lesson A: Granhs for wayes	Lesson 4: Mock Exam				
	Lesson 4. Graphs for waves					
	Lesson 5: Electric circuits end of topic test green pen model answers	Lesson 5: Mock Exam				
	Lesson 6: Electric circuits end of topic test feedback	Lesson 6: Mock Exam				
		Lesson 7: Mock Exam				
Key Words	Longitudinal, transverse, electromagnetic, mechanical, amplitude, wavelength, period, frequency, rarefactions,	N/A				
	compressions					
Common Misconceptions	Sound is a transverse wave	N/A				
Homework	Textbook and exam questions	Textbook and exam questions				
nomework		rexibility and exam questions				
Assessment this	Mock examination	Mock examination, Further Mechanics topic test, definition				
half-term						
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving				
opportunities	EMPLOYMENT' Foundation skill for any physics related job	EMPLOYMENT: Foundation skill for any physics related job.				
Employment	bttns://www.ion.org/corcors.nbvcics	https://www.jop.org/careers-physics				
Employment	Tittps.//www.iop.org/careers-physics	<u>intips.//www.iop.org/careers-priysics</u>				
LINKS						
Employability	Aiming high Literacy	Aiming high Literacy				
Skills	Creativity Numeracy	Creativity Numeracy				
	Leadership Independence	Leadership Independence				
	Listening Communication	Listening Communication				
	Presenting Teamwork	Presenting Teamwork				
	Problem solving Staying positive	Problem solving Staying positive				
Week 9	Tonic 5: Wayes and Particle Nature of Light	Topic: Mock exam fortnight				
	Lessen 1: Wave review - review - a fer (8, CCCE resen)	Lessen 1: Maak Even				
W/D / " NOV	Lesson 1: wave review – points covered so far (& GCSE recap)	Lesson 1: Mock Exam				
	Lesson 2: Recap reflection & experiment	Lesson 2: Mock Exam				
	Lesson 3: Recap refraction & experiment	Lesson 3: Mock Exam				
	Lesson 4: Recap diffraction & calculations	Lesson 4: Mock Exam				
	Lesson 5: Supernosition & phase difference	Lesson 5: Mock Exam				
	Lesson 5. Superposition & phase difference					
	Lesson 6: Retraction of light calculations					
		Lesson 7: Mock Exam				
Key Words	Reflection, refraction, angle of incidence, angle of reflection, angle of refraction, superposition, phase	N/A				
Homework	Textbook and exam questions	Textbook and exam questions				
Assessment this		Mock examination Eurther Mechanics tonic test definition				
half-term	Mock examination	wock examination, runther wechanics topic test, definition				

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Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
Employment	https://www.iop.org/caroors-physics	https://www.iop.org/careers-physics
Links		
Employability	Aiming high Literacy	Aiming high Literacy
Chille	Creativity Numeracy	
SKIIIS	Leadershin Independence	Leadershin Independence
	Listening	Listening
	Presenting Teamwork	Precenting Teamwork
	Problem solving Staving nositive	Problem solving Staving positive
	Tauria E. Marcas and Dautiala Nature of Links	Tania C. Funthan Mashaning & Tania 12: Ossillations
Week 10	Topic 5: Waves and Particle Nature of Light	Topic 6: Further Mechanics & Topic 13: Oscillations
w/b14"Nov	Lesson 1: Coherence – destructive & constructive interference	Lesson 1: Mock exam green pen model answers
	Lesson 2: Exam errors & misconceptions	Lesson 2: Mock exam feedback
	Lesson 3: Refractive index & calculations	Lesson 3: Further Mechanics NHTW definitions & revise fo
	Lesson 4: Young's fringes experiment	Lesson 4: Circular motion questions
	Lesson 5: Standing/stationary waves	Lesson 5: Circular motion guestions
	Lesson 6: Melde's experiment	Lesson 6: Simple Harmonic Motion terms, graphs & formul
		Lesson 7: Link V & X, recap SHIVI formulae & graphs, identif
Key Words	Coherence, interference, refractive index, fringes, stationary	Angular, linear, momentum, collision, energy, simple harm
Homework	Textbook and exam guestions	Textbook and exam guestions
		· ·
Assessment this	Mock examination	Mock examination Further Mechanics tonic test definition
half-term		
	LIFE SKILLS, Numeron, and problem column	LIFE SKILLS, Numerous and problem onlying
LITE SKIIIS	EADLOVATENT F	LIFE SKILLS. Numeracy and problem solving
Career	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
opportunities	https://www.iop.org/careers-physics	https://www.iop.org/careers-physics
Employment		
Links		
Employability	Aiming high Literacy	Aiming high Literacy
Skills	Creativity Numeracy	Creativity Numeracy
	Leadership Independence	Leadership Independence
	Listening Communication	Listening Communication
	Presenting Teamwork	Presenting Teamwork
	Problem solving Staying positive	Problem solving Staying positive
Week 11	Topic: Mock exam fortnight	Topic 6: Further Mechanics & Topic 13: Oscillations
w/b 21 st Nov	Lesson 1: Mock Exam	Lesson 1: Further Mechanics NHTW definitions test & end
	Lesson 2. Mock Exam	Lesson 2: Further Mechanics end of tonic test
	Lesson 2: Mock Exam	Lesson 2: Damping - light beavy critical & over
	Lesson J: Mock Exam	Lesson 3: Damping experiment & graph to plot/applyce
	Lesson 4. Mock Exam	Lesson 4. Damping experiment & graph to plot/ analyse
	Lesson 5: Mock Exam	Lesson 5: Oscillations – free, damped & forced
	Lesson 6: Mock Exam	Lesson 6: Resonance
		Lesson 7: Further Mechanics end of topic test green pen m
Key Words	N/A	Types of damping, types of oscillations, resonance
Homework	Textbook and exam questions	Textbook and exam questions
Assessment this	Mock examination	Mock examination Eurther Mechanics tonic test definitio
half tarm		
nair-term		
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
Employment	https://www.iop.org/careers-physics	https://www.iop.org/careers-physics
Links		

or end of topic test

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nonic motion

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of topic test revision

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Employability	Aiming high Literacy	Aiming high Literacy
Skills	Creativity <mark>Numeracy</mark>	Creativity <mark>Numeracy</mark>
	Leadership Independence	Leadership Independence
	Listening Communication	Listening Communication
	Presenting Teamwork	Presenting Teamwork
	Problem solving Staying positive	Problem solving Staying positive
Week 12	Topic: Mock exam fortnight	Topic 13: Oscillations & Topic 10: Space
w/b 28 th Nov	Lesson 1: Mock Exam	Lesson 1: Barton's pendulums, damping graphs & ductile n
	Lesson 2: Mock Exam	Lesson 2: Plan CPAC16 Mass/spring resonant frequencies
	Lesson 3: Mock Exam	Lesson 3: Conduct CPAC16 Mass/spring resonant frequenc
	Lesson 4: Mock Exam	Lesson 4: Oscillations NHTW definitions, gravitational field
	Lesson 5: Mock Exam	Lesson 5: Trigonometric parallax, field lines diagrams
	Lesson 6: Mock Exam	Lesson 6: Luminosity & flux, cepheid variables
		Lesson 7: Light years, parsec units & calculations
Key Words	N/A	Damping, ductile, resonance, oscillations, trigonometric pa
Homework	Textbook and exam questions	Textbook and exam questions
Accoccmont this	Mask avamination	Mark avamination Eurther Machanics tanis test definition
Assessment this	NIOCK EXamination	Mock examination, Further Mechanics topic test, demittor
haif-term		
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
Employment Links	https://www.iop.org/careers-physics	https://www.iop.org/careers-physics
Employability	Aiming high Literacy	Aiming high Literacy
Skills	Creativity Numeracy	Creativity Numeracy
	Leadership Independence	Leadership Independence
	Listening Communication	Listening Communication
	Presenting Teamwork	Presenting Teamwork
	Problem solving Staying positive	Problem solving Staying positive
Week 13	Topic 5: Waves and Particle Nature of Light	Topic 13: Oscillations & Topic 10: Space
w/b 5 th Dec	Lesson 1: Mock exam green pen model answers	Lesson 1: Oscillations NHTW definitions test & Hertzsprung
	Lesson 2: Mock exam feedback	Lesson 2: Life cycle of a main sequence star – birth, format
	Lesson 3: Recap standing/stationary waves & diffraction	Lesson 3: Main sequence star, red giants, red/white & blac
	Lesson 4: Applications of standing/stationary waves	Lesson 4: Black holes & black body radiators
	Lesson 5: Wave graph questions	Lesson 5: Taboo revision cards, sun suffix, luminosity recap
	Lesson 6: Resonance tube experiment	Lesson 6: Wien's Law calculations, Stefan-Boltzmann Law c
		Lesson 7: Mass & energy calculations
Key Words	Standing/stationary, resonance	Temperature, luminosity, main sequence, giant, dwarf
Homework	Textbook and exam questions	Textbook and exam questions
Homework		
Assessment this	Mock examination	Mock examination, Further Mechanics topic test. definition
half-term		
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
Employment	https://www.jop.org/careers-physics	https://www.iop.org/careers_physics
Links		
Links Emplovability	Aiming high Literacy	Aiming high Literacy
Links Employability Skills	Aiming high Literacy Creativity Numeracy	Aiming high Literacy Creativity Numeracy
Links Employability Skills	Aiming high Literacy Creativity Numeracy Leadership Independence	Aiming high Literacy Creativity Numeracy Leadership Independence
Links Employability Skills	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication
Links Employability Skills	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork
Links Employability Skills	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive

materials

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arallax, luminosity, flux, cepheid, parsec

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g-Russell diagram (star temperatures & luminosity) tion ck dwarfs, supergiants

p & neutron capture calculations

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Week 14	Topic 5: Waves and Particle Nature of Light	Topic 10: Space & Topic 11: Nuclear Radiation
w/b 12 th Dec	Lesson 1: Behaviour of waves	Lesson 1: Expanding universe, red shift, Hubble's Law
	Lesson 2: Total internal reflection (TIR)	Lesson 2: Eate of the universe, dark matter
	Lesson 3: TIR experiment – determine the critical angle	Lesson 3: Space NHTW definitions & nuclear hinding energy
	Lesson J: Plane nolarised light	Lesson 4: Nuclear hinding energy calculations
	Lesson 5: Polarised light experiment	Lesson 5: Mass defect & binding energy per puckeon
	Lesson S. Polarised light experiment	Lesson G. Nuclear fiscian, nuclear fusion
	Lesson 6. Diffaction of waves & electron diffaction comparison	Lesson 7: Advertages 8 disadvertages of nuclear fission 8 f
14 - 14	The sector sector fluctuation is the sector of sector sector.	Lesson 7: Advantages & disadvantages of nuclear fission & fi
Key Words	lotal internal reflection, plane, polarised, diffraction	Expansion, contraction, red shift, dark matter, binding energ
		To the character of the contracter of the contra
нотеwork	Textbook and exam questions	Textbook and exam questions
A		A second second sector of the second sector sector sector second sector sect
Assessment this	Mock examination	Mock examination, Further Mechanics topic test, definitions
nait-term		
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
Employment	https://www.iop.org/careers-physics	https://www.iop.org/careers-physics
Links		
Employability	Aiming high Literacy	Aiming high Literacy
Skills	Creativity Numeracy	Creativity Numeracy
	Leadership Independence	Leadership Independence
	Listening Communication	Listening Communication
	Presenting Teamwork	Presenting Teamwork
	Problem solving Staying positive	Problem solving Staying positive
Week 15	Topic 5: Waves and Particle Nature of Light	Topic 10: Space & Topic 11: Nuclear Radiation
w/b 19 th Dec	Lesson 1: Reflection & pulse echo	Lesson 1: Space NHTW definitions test, atomic structure, iso
	Lesson 2: Reflection calculations	Lesson 2: Background radiation
		Lesson 3: Nuclear radiation types (alpha, beta, gamma), radi
Key Words	Reflection, pulse, echo	Atom, nucleus, isotope, background, radiation, alpha, beta, §
Homework	Textbook and exam questions	Textbook and exam questions
-		
Assessment this	Mock examination	Mock examination, Further Mechanics topic test, definitions
half-term		
Career	LIFE SKILLS: Numeracy and problem solving	LIFE SKILLS: Numeracy and problem solving
opportunities	EMPLOYMENT: Foundation skill for any physics related job.	EMPLOYMENT: Foundation skill for any physics related job.
Employment	https://www.iop.org/careers-physics	https://www.iop.org/careers-physics
Links		
Employability	Aiming high Literacy	Aiming high Literacy
Skills	Creativity Numeracy	Creativity Numeracy
	Leadership Independence Listening Communication	Leadership Independence Listening Comr
	Presenting Teamwork	Presenting Teamwork
	Problem solving	Problem solving
	Staying positive	Staying positive
March 10		
Week 16	Physical Properties	1. Introduction to the Standard Model
(w/b Wed 4 th	Lesson 1: Viscosity CPAC prep	2. Leptons and their properties
Jan)	Lesson 2: CPAC write up	3. Quarks and their properties
	Lesson 3: CPAC Write up	5. The formation of mesons from quarks
	Lesson 4. House's Law experiment within mind of proportionality. Write up	6 Exchange bosons and forces
	Lesson 6. Strain: Theory for spring constant.	7. Exam practice
Key Words	Viscosity Stoke's Law viscous drag unthrust non-stationary surface	NHTW grid - particles
	viscosky, stoke s Law, viscous urag, aprillast, holf-stationaly surface	
Level 3		

k fusion ergy, defect, fission, fusion

ons tests & CPAC16

sotopes

adiation type dangers, cloud chamber tracks

a, gamma

ons tests & CPAC16

mmunication

Common Misconceptions	Individual feedback given to each student detailing misconceptions	Most find topic too abstract
Homework	Ensure write-up completed.	Past paper questions – sub-atomic particles
Assessment this half-term	Term 3 – in-class test (EAT SUR WAV)	In-class test and retest
Career	LIFE SKILLS: Numeracy and problem solving, following instructions	LIFE SKILLS: Imagination and abstract thinking
opportunities	EMPLOYMENT: Fluid dynamic in process engineering. Aerodynamic design in automotive engineering	EMPLOYMENT: Particle physicist, Nuclear physicist, Fusion Physic
Employment		
Links		
Employability Skills	Aiming high Literacy Creativity <mark>Numeracy</mark> Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive	Aiming highLiteracyCreativityListeningCommunicationPresenting
IT Skills	IT1 & IT2 CPAC research and write up	
Week 17	Physical properties	1. Conservation of charge and particle
(w/b 9 th Jan)	Lesson 1: Complete springs in series experiment, graph up	interactions
(11,05 5011)	Lesson 1. Complete springs in senes experiment, graph up.	2. Conservation of baryon and lepton number
	Lesson 2: Theory for springs in parallel, begin experiment	in interactions
	Lesson 3: Complete experiment for springs in parallel and graph up	3. Changes to strangeness in interactions
	Lesson 1: Idealised graph of stress vs strain and features of graph	5. Particle behaviour and absolute zero
	Lesson 2: Young's modulus and practise calculations	6. Comparing temperature scales
	Lesson 3: Young's modulus practise exam calculations	7. Exam practice
Key Words	Stress, strain, extension, compression, elastic limit, limit of proportionality, Yield, UTS, elastic limit, limit of proportionality,	NHTW grid Temperature, pressure and volume defs
Level 2	plastic and elastic behaviour, brittle, ductile	
Level 3		
Common	Students forget to subtract Lo from L.	Difficult for students to imagine an object occupying zero volume
Misconceptions		
Homework	Complete all 3 graphs and calculations of spring constant k.	Revise for in-class test
Assessment this half-term	Term 3 – in-class test (EAT SUR WAV HFS)	In-class test and retest
Career	LIFE SKILLS: Hand/eye coordination skills, measuring skills	LIFE SKILLS: Imagination and abstract thinking
opportunities	EMPLOYMENT: Mechanical engineer, architect, e.g measurements of stress and strain in buildings and bridges.	EMPLOYMENT: Particle physicist, Nuclear physicist, Fusion Physic
Employment		
LINKS Employability	Aiming high Literacy Creativity Numeracy Leadership Independence Listening	Aiming high Literacy Creativity Nume
Skille	Communication Presenting Teamwork Problem solving Staving positive	Communication Presenting Teamwork Proble
JKIIIS		
Week 18	Lesson 1: Model exemplar answers into a fresh paper	1. Investigating thermostats
(w/b 16 th Jan)	Lesson 2: Model exemplar answers into a fresh paper	2. Energy distribution and the Maxwell-
	Lesson 3: Model exemplar answers into a fresh paper	Boltzmann curve
	Stress and strain	3. Molecular kinetic energy
	Lesson 1: CPAC – Young's Modulus - prep	6 & 7 Model exemplar answers
	Lesson 2: CPAC -Young's Modulus	
Koy Words	Lesson 3: CPAC – Write-up	NHTW grid Temperature, pressure and volume defs
Level 2		Wirrw gna remperature, pressure and volume dels
Common	Learn exemplar answers	Difficult for students to imagine an object occupying zero volume
Misconcentions		
Homowork	Reviewed in individual feedback sheet	Revise for in-class test
HOMEWOR		
Assessment this	Term 3 – in-class test (EAT SUR WAV HFS)	In-class test and retest
half-term		
Career	LIFE SKILLS: Numeracy and problem solving.	LIFE SKILLS: Imagination and abstract thinking
opportunities	EMPLOYMENT: Management of stress under test conditions.	EMPLOYMENT: Particle physicist, Nuclear physicist, Fusion Physic

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<mark>Numeracy</mark> Teamwork	Leadership Problem so	o olving	Independ Staying p	ence ositive
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acy m solving	Leadership Staying positive	Independe	nce	Listening
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Employability	Aiming high	Literacy	Creativity	Numeracy Drocklare coluin	Leadership	Independence	Listening	Aiming high	<mark>Literacy</mark>	Creativity	Numeracy Broklam och ing	Leadership
Skills	Communication	Presenting	Teamwork	Problem solvin	ig staying positive			Communication	Presenting	Teamwork	Problem solving	Staying positiv
IT Skills	IT1 & IT2 CPAC rese	earch and write	e up									
-												
Week 19	Physical Properties							1. Describing spe	cific heat capa	city		
(w/b 23 rd Jan)	Lesson 1: Work done	e on a spring + ex	xperiment					2. Investigating sp	pecific heat cap	bacity		
	Lesson 2: Exam ques	stions to practise	e on energy density	and work done on a	a spring			3. Describing late	ent neat	t		
	Lesson 3: Retest							4. Investigating s	of a black body	al vradiator		
	Physical properties/E	Electricity						6 & 7. Rotost	of a black bou	radiator		
	Lesson 1: Strain hard	lening and bubbl	e rafts.					0 & 7. Retest				
	Lesson 2: Symbols for	r devices and co	mponents									
	Lesson 3: Current bel	haviour; K1 and o	defs									
Key Words	NHTW grids 1-6 + wa	aves						NHTW grid Temper	rature, pressure	and volume defs		
Level 2												
Level 3												
Common	Reluctance to count s	squares and rela	te to an equation –	the science to expl	lain why they are d	oing what they are	doing					
Misconceptions		·	•	·		0 ,	U					
Homework	Energy density work	sheet										
nomework												
Accorsmont this	Term 4 – in-class test		HES)					In-class test and re-	test			
Assessment this			111.5)						lest			
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Career	EMDLOVMENT: Mach	e coordination's	architact (acroscial	lis ly domaing of rocor					nce ticlo physicist N	uclear physicist Eu	icion Dhucicist	
opportunities		lanical engineer,	, architect (especial	iy damping of resor	lance).				ticle physicist, it	iucieal physicist, Fu	ISION PHYSICIST	
Employment												
Links												
Employability	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening	Aiming high	Literacy	Creativity	Numeracy	Leadership
Skills	Communication	Presenting	Teamwork	Problem solving	Staying positive			Communication	Presenting	Teamwork	Problem solving	Staying positi
Week 20	Electricity							1. Boyle's law				
(w/b 30 th Jan)	Lesson 1: Experiment	t to prove K1						2. Investigating Boy	yle's law			
	Lesson 2: Voltage rul	es, K2 and defs						3. Charles's law				
	Lesson 3: Experiment	t to prove K2.						4. The pressure law	/			
	Lesson 4: Test	ovomplar answo	rc					5. The equation of	state for			
	Lesson 5: Modelling	exemplar answei	rs					6 Doriving the king	tic theory			
	Lesson 0. Modeling		15					equation				
								7 Molecular kineti	c energy			
Key Words	NHTW grid electricity	v						NHTW grid Temper	rature, pressure	and volume defs		
		1							ata: c) p: cooai c			
Level 3												
Common	Conventional current	t vs electron flow	M									
Misconcentions			•									
Nilsconceptions	Povice for term 4 test	+										
Homework	Revise for term 4 tes											
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Assessment this	Term 4 – In-class test	L (EAT SUR WAV	HFS)					In-class test and re	test			
half-term												
Career	LIFE SKILLS: Know ele	ectrical symbols	used in a circuit dia	igram				LIFE SKILLS: Resilier	nce			
opportunities	EMPLOYMENT: Election	rical Engineer, El	lectronic Engineer, (Geophysicist - resist	tivity			EMPLOYMENT: Par	ticle physicist, N	luclear physicist, Fu	ision Physicist	
Employment												
Links												
Employability	Aiming high	Literacy	Creativity	<mark>Numeracy</mark>	Leadership	Independence	Listening	Aiming high	Literacy	Creativity	Numeracy	Leadership
Skills	Communication	Presenting	<mark>Teamwork</mark>	<mark>Problem solvir</mark>	ng Staying positive	2		Communication	Presenting	Teamwork	Problem solving	Staying p
Week 21	Electricity							1. The sources of b	ackground radia	tion		
(w/b 6 th Feb)	Lesson 1: Re-test							2. Investigating bac	ckground radiati	on		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Lesson 2: Ohm's Law	,						3. Investigating the	e penetrating pov	wer of radiation		
	Lesson 3: 4 factors af	ffecting resistanc	ce					4. Describing alpha	, beta and gamn	na radiation		

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<mark>m solving</mark>	Staying positive		
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	Lesson 4: 4 Factors affecting resistance	5. Radioactive safety measures							
	Lesson 5: Go through Easter exam question – exemplar answers	6. Investigating the absorption							
	Lesson 6: I/V characteristic graph for a lamp - theory	of gamma radiation by lead							
		7. The decay constant							
Key Words <mark>Level 2</mark> Level 3	Electricity NHTW grid	NHTW grid – Radioactivity defs							
Common Misconceptions	V = I x R is NOT Ohm's Law!								
Homework	Easter electricity exam questions								
Assessment this half-term	Term 4 – in-class test (EAT SUR WAV HFS)	In-class test and retest							
Career	LIFE SKILLS: calculation layout and rearranging equations	LIFE SKILLS: Management of stress in test situations.							
opportunities Employment Links	EMPLOYMENT: Electrician, electrical engineer, electronic engineer	EMPLOYMENT: Particle physicist, Nuclear physicist, Fusion Physic							
Employability Skills	Aiming high Literacy Creativity Numeracy Leadership Independence Listenin Communication Presenting Teamwork Independence Listenin Problem solving Staying positive Independence Listenin	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Problem solving Staying positive							
Week 22 (w/b 13 th Feb)	Electricity 1. Rate of decay and activity Lesson 1: I/V characteristics for a lamp experiment 2. Half-life Lesson 2: Exam questions on I/V characteristics for a lamp separated into describe and explain. 3. Investigating decay rates Lesson 3: I/V characteristics for an Ohmic resistor 4. Analysis of decay curves to determine half-life Lesson 4: I/V characteristics for a diode - experiment 5. Logarithms and radioactive decay 6. Retest 6. Retest								
	Lesson 6: LDRs – experimental data	7. Correcting exemplars							
Key Words <mark>Level 2</mark> Level 3	NHTW grid electricity	NHTW grid – Radioactivity defs							
Common Misconceptions	Describing a is proportional to b (not "they are") Conventional current vs electron flow. Understanding forward bias in relation to conventional current								
Homework	Learn 6-mark standard answer								
Assessment this half-term	Term 5 – in-class test (EAT SUR WAV HFS DIG)	In-class test and retest							
Career opportunities Employment Links	LIFE SKILLS: Graph interpretation skills, use of command words; describe and explain EMPLOYMENT: Electrician, electrical engineer, electronic engineer	LIFE SKILLS: Management of stress in test situations. EMPLOYMENT: Particle physicist, Nuclear physicist, Fusion Physic							
Employability Skills	Aiming high <mark>Literacy</mark> Creativity <mark>Numeracy</mark> Leadership Independence Listenin Communication Presenting <mark>Teamwork</mark> Problem solving Staying positive	Aiming high <mark>Literacy</mark> Creativity Nume Communication Presenting Teamwork Proble							
Week 23 (w/b 27 th Feb)	Electricity Lesson 1: Resistivity theory Lesson 2: Exam questions on resistivity Lesson 3: CPAC Resistivity prep Lesson 4: CPAC - resistivity Lesson 5 & 6: Ensure CPAC resistivity written up and complete	 Energy and mass equivalent The mass deficit Nuclear binding energy Explaining nuclear fusion using binding energy Explaining nuclear fission using binding energy Explaining nuclear fission using binding energy The components of a fission reactor Reactor structure 							
Key Words <mark>Level 2</mark> Level 3	NHTW grid electricity	NHTW grid – Grav fields defs and radioactivity							

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acy m solving	Staying positive	independence	Listening

Common	Conventional current vs electron flow				
Misconceptions	Device for terms 5 test	Dest as a substitute - Const A. Device for marks			
Homework	Revise for term 5 test	Past paper questions – Grav I Q and A. Revise for mocks.			
half-term	Term 4 – In-class test (EAT SUR WAV HES DIG)	Mock paper 1 and Mock Paper 2 and re-tests			
Career	LIFE SKILLS: Data processing and graphical work	LIFE SKILLS: Safety around radioactivity			
opportunities	EMPLOYMENT: Electrical Engineer, Electronic Engineer, Geophysicist - resistivity	EMPLOYMENT: Nuclear physicist, all employment at Sellafield			
Employment					
Links					
Employability Skills	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive	Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive			
IT Skills	IT1 & IT2: Research and completion of CPAC				
Week 24	Electricity	1 Chain reactions and their control			
(w/b 6 th Mar)	Lesson 1: Resistivity theory	2. Nuclear power issues			
(11/10 0 11101)	Lesson 2: Resistivity practise questions	3 Gravitational field strength			
	Lesson 3: Potential divider circuits	4. Gravitational potential			
	Lesson 4: Internal resistance of a power supply	5. Linking gravitational potential and field strength			
	Lesson 5: Internal resistance of a power supply - exepriment	6. Comparing gravitational and electric fields			
	Lesson 6: Drift velocity and I = nAVe	7. Exam practice			
Key Words	NHTW grid electricity	NHTW grid – Grav fields defs			
Level 2 Level 3					
Common	Electrons actually move at the speed of a snail				
Misconceptions					
Homework	Revise for mock	Revise for Mock paper 1 and paper 2			
Assessment this	Term 4 – in-class test (EAT SUR WAV HFS DIG)	Mock paper 1 and Mock Paper 2 and re-tests			
half-term					
C	LIFE SKILLS: calculation layout and rearranging equations	LIEE SKILLS: Knowledge of weights and measures			
Career	En E Skiels, calculation ayout and real angling equations	LITE SKILLS. KNOWIEdge of weights and measures			
Career opportunities	EMPLOYMENT: Electrician, electrical engineer, electronic engineer	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer			
Career opportunities Employment	EMPLOYMENT: Electrician, electrical engineer, electronic engineer	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer			
Career opportunities Employment Links	EMPLOYMENT: Electrician, electrical engineer, electronic engineer	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer			
Career opportunities Employment Links Employability	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening	EITE SKIELS: Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership			
Career opportunities Employment Links Employability Skills	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive	ENELS: Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive			
Career opportunities Employment Links Employability Skills	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive	ENELS: Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Communication Presenting Teamwork Problem solving Staying positive			
Career opportunities Employment Links Employability Skills Week 25	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 4: Electricity test Lesson 4: Electricity test	ENELS: Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 2. The Stafe of the particular state of the p			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar)	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 2: Modelling exemplar answers	Enclosition EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 2. The Stefan–Boltzmann law 2. Wiards law			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar)	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam	Enclose the second of the s			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar)	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam	Enclosion Construction EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive I. Basic stellar classification Image: State of Sta			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar)	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positiv 1. Basic stellar classification 2. The Stefan–Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar)	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Independence Listening Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam	Entrastical Status Entrastical Status EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 2. The Stefan–Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell diagram			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar)	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 6: Feedback from mock paper 1 exam Lesson 6: Feedback from mock paper 1 exam	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positiv 1. Basic stellar classification 2. The Stefan–Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell diagram 7. Stellar evolution			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam NHTW grid electricity	Entrol Skills Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. Basic stellar classification Image: Staying positive Image: Staying positive Image: Staying positive I. The details of spectral classes			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 3	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock paper 1 exam NHTW grid electricity NHTW grid electricity	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 2. The Stefan–Boltzmann law Staying positive 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell diagram 7. Stellar evolution NHTW grid – Grav fields defs and space NHTW grid – Grav fields defs and space			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 2 Level 3 Common	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Problem solving Staying positive Leadership Independence Listening Leadership Leadership Independence Listening Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam NHTW grid electricity Electricity move at the speed of a snail	EINE SKILLS: Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification . The Stefan–Boltzmann law . . . 3. Wien's law . The details of spectral classes 4. The details of spectral classes 6. The Hertzsprung–Russell 7. Stellar evolution NHTW grid – Grav fields defs and space 			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 3 Common Misconceptions	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam NHTW grid electricity Electrons actually move at the speed of a snail Electrons actually move at the speed of a snail	EITE SALES. Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 2. The Stefan–Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell diagram 7. Stellar evolution NHTW grid – Grav fields defs and space NHTW grid – Grav fields defs and space Implication			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 3 Common Misconceptions Homework	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam NHTW grid electricity Electrons actually move at the speed of a snail Revise for mock Electrons actually move at the speed of a snail Electrons actually move Electrons actually move	Entrestitutes EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 1. Basic stellar classification Staying positive 2. The Stefan–Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell diagram 7. Stellar evolution NHTW grid – Grav fields defs and space Revise for mock re-test			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Communication Literacy Presenting Creativity Teamwork Numeracy Problem solving Leadership Independence Listening Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam Lesson 6: Feedback from mock paper 1 exam NHTW grid electricity Electrons actually move at the speed of a snail Revise for mock Term 4 – in-class test (EAT SUR WAV HFS DIG) Electrons actually move at the speed of a snail	Entrestitutes ENTERSTITUTE EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 1. Basic stellar classification 2. The Stefan–Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell NHTW grid – Grav fields defs and space Revise for mock re-test Mock exam papers . .			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 3 Common Misconceptions Homework Assessment this half-term	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 3: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam NHTW grid electricity Electrons actually move at the speed of a snail Revise for mock Term 4 – in-class test (EAT SUR WAV HFS DIG) Electrons	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 2. The Stefan–Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung–Russell diagram 7. Stellar evolution NHTW grid – Grav fields defs and space Revise for mock re-test Mock exam papers			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 3 Common Misconceptions Homework Assessment this half-term Career	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 3: Feedback from mock P1 exam Lesson 5: Feedback from mock paper 1 exam Lesson 6: Feedback from from from from from from from from	En E SKILLS: Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 1. The Stefan-Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung-Russell diagram 7. Stellar evolution NHTW grid – Grav fields defs and space NHTW grid – Grav fields defs and space IIFE SKILLS: Knowledge of weights and measures			
Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this half-term Career opportunities	EMPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 5: Feedback from mock P1 exam Lesson 6: Feedback from mock paper 1 exam NHTW grid electricity Electrons actually move at the speed of a snail Revise for mock Term 4 – in-class test (EAT SUR WAV HFS DIG) LIFE SKILLS: calculation layout and rearranging equations EMPLOYMENT: Electrician, electrical engineer, electronic engineer	Entrestitutes EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positive 1. Basic stellar classification 2. The Stefan-Boltzmann law 3. Wien's law 4. The details of spectral classes 5. Line spectra 6. The Hertzsprung-Russell diagram 7. Stellar evolution NHTW grid – Grav fields defs and space Revise for mock re-test Mock exam papers LIFE SKILLS: Knowledge of weights and measures EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer			
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Career opportunities Employment Links Employability Skills Week 25 (w/b 13 th Mar) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this half-term Career opportunities Employment Links Employability	ENPLOYMENT: Electrician, electrical engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Lesson 1: Electricity test Lesson 2: Modelling exemplar answers Lesson 3: Modelling exemplar answers Lesson 4: RE-TEST Mock P1 exam Lesson 4: RE-TEST Mock P1 exam Lesson 6: Feedback from mock paper 1 exam Independence Independence NHTW grid electricity Integendence Electrons actually move at the speed of a snail Integendence Integendence Revise for mock Term 4 - in-class test (EAT SUR WAV HFS DIG) Integendence Listening LIFE SKILLS: calculation layout and rearranging equations EMPLOYMENT: Electricial engineer, electronic engineer Aiming high Literacy Creativity Numeracy Leadership Independence Listening	EMPLOYMENT: Geophysicist (potential fields specialist), Astronomer Aiming high Literacy Creativity Numeracy Leadership Communication Presenting Teamwork Problem solving Staying positiv 1. Basic stellar classification 1. Basic stellar classification 2. The Stefan-Boltzmann law 3. Wien's law 4. The details of spectral classes 6. The Hertzsprung–Russell diagram NHTW grid – Grav fields defs and space Revise for mock re-test 			

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ures specialist), <i>i</i>	Astronomer			
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Week 26	<u>Waves</u>							1. Units of distance in astrophysics						
(w/b 20 th Mar)	1. Explain the differ	ence between lo	ngitudinal and tran	sverse waves				2. Using parallax to	measure distand	ce				
	2. Describe longitud	linal waves, parti	icularly in terms of	pressure variation a	and the displaceme	ent of molecules		3. The parsec as a u	nit of distance					
	3. Describe transver	se waves						4. Intensity and dist	ance relationshi	ps				
	4. Understand the t	erms amplitude,	frequency, period	and wavelength.				5. Standard candle techniques						
	5. Define wave spee	eds, measure the	speed of sound in	air, and derive and	use the wave equa	ation		6 & 7. Introducing th	ne Doppler effe	ct				
	6. Understand that	waves can be ref	flected and transmi	tted at an interface	between media									
Key Words	NHIW grid waves d	efs.						NHIW grid – Grav fi	elds defs + spac	e				
Level 2														
Level 3														
Common	Learn def for transv	erse and longitu	dinal waves					Revise for re-test						
Misconceptions	Students must conn	ect the arrow th	e part of the wave	that they are labelli	ing and not the air	. Use of engineering	ng arrows.							
Homework	Learn appropriate s	election of defs ((waves NHTW grid)											
Assessment this	Term 4 – in-class te	st (EAT SUR WAV	/)					Mock paper 1 and N	lock Paper 2 an	d re-tests				
half-term														
Career	LIFE SKILLS: Numer	acy and literacy						LIFE SKILLS: Knowle	dge of weights	and measures				
opportunities	EMPLOYMENT: Sou	nd engineer, seis	smic geophysicist					EMPLOYMENT: Geo	physicist (poten	tial fields specialist), Astronomer			
Employment														
Links														
Employability	Aiming high	<mark>Literacy</mark>	Creativity	<mark>Numeracy</mark>	Leadership	Independence	Listening E	Aiming high	Literacy	Creativity	Numeracy	Leadership		
Skills	Communication	Presenting	Teamwork	Problem solving	staying posi	itive		Communication	Presenting	Teamwork				
								Problem solving	Staying positi	ve				
Week 27	<u>Waves</u>							1 & 2. The Doppler e	effect and absor	ption				
(w/b 27 [™] Mar)	1 Define wave spee	ds, measure the	speed of sound in a	air, and derive and u	use the wave equa	ition		spectra						
	2. Understand that	waves can be ret	flected and transmi	tted at an interface	between media			3. Hubble's law						
	3. Understand the t	erni critical angle	e loction will occur at	an interface				4. Using Hubble's law to determine the age						
	5. Understand what	is meant by refr	raction	an interface.				5 Onen closed and flat Universe						
	6 Understand how	to measure the r	refractive index of a	solid material				6. Dark matter and its detection						
								7. Dark energy						
Kev Words	See NHTW grid - de	fs for waves						NHTW grid – Grav fi	elds defs + spac	e				
Level 2	_							_						
Level 3														
Common	Equations for C and	n not well under	rstood or leaned.					Revise for re-test						
Misconceptions														
Homework	Learn a selection of	defs from NHTW	V grid - waves											
Assessment this	Term 4 – in-class te	st (EAT SUR WAV	/ HFS)					Mock paper 1 and M	lock Paper 2 an	d re-tests				
half-term		,	,						·					
Career	LIFE SKILLS: Unders	tanding of long a	and short sightedne	SS				LIFE SKILLS: Knowle	dge of weights	and measures				
opportunities	EMPLOYMENT: Opt	ician, Opthalmic	optician, Fibre Opt	ic Cable engineer				EMPLOYMENT: Geo	physicist (poten	tial fields specialist), Astronomer			
Employment		<i>i</i> .		U					. ,	·	,,			
Links														
Employability	Aiming high	Literacy	Creativity	Numeracy	Leadershin	Independence	Listening	Aiming high	Literacy	Creativity	Numeracy	Leadership		
Skille	Communication	Presenting	Teamwork	Problem solving	Staving positive	macpenaence		Communication	Presenting	Teamwork	Problem solving	Staving posi		
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Week 28	Waves							1 Examining a simp	le oscillating so	ing				
$(w/b 17^{th} Apr)$	1 Understand that	waves can be ref	flected and transmi	tted at an interface	hetween media			2 The period of mot	tion for an oscill	ating				
(w/b1/ Apr)	2 Understand the t	erm critical angle			between media			spring		ating				
	3. Predict whether t	otal internal refl	- lection will occur at	an interface				3. Investigating a pe	ndulum					
	4. Understand what	is meant by refr	raction					4. The relationship b	between circular	r				
	5. Understand how	to measure the r	refractive index of a	a solid material				motion and SHM						
	6. Use the Snell's la	w equation relati	ing to refraction					5. Examining SHM w	vith motion grap	bhs				
								6. Deriving SHM equ	lations					
								7. Energy transfer in	SHM systems					
Key Words	See NHTW grid - de	fs for waves						SHM 1-6 NHTW grid	s					
Level 3														

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tronomer			
Numeracy	Leadership	Independence	Listening
Problem solving	Staying positive		

Common	Equations for C and n not well understood or leaned.	
Misconceptions		
Homework	Learn a selection of dets from NHTW grid - waves	Targeted revision questions
Assessment this half-term	Term 5 – in-class test (WAV)	In-class test and re-test
Career	LIFE SKILLS: Understanding of long and short sightedness	LIFE SKILLS: Numeracy and literacy
opportunities	EMPLOYMENT: Optician, Opthalmic optician, Fibre Optic Cable engineer	EMPLOYMENT: Fairground ride design, bridge design to avoid or
Employment		
Links		
Emplovability	Aiming high Literacy Creativity Numeracy Leadership Independence Listening	Aiming high Literacy Creativity Nume
Skills	Communication Presenting Teamwork Problem solving Staying positive	Communication Presenting Teamwork Proble
Week 29	Waves	1. Analysing energy in a SHM system
(w/b 24 th Apr)	1. Understand what is meant by the term diffraction	2. Free and forced oscillations
• • • •	2.Understand the factors that affect the amount of diffraction	3. Describing the conditions for resonance
	3. Describe an experiment to observe diffraction effects	4. Investigating resonance
	4. Understand what is meant by the term's coherence, path difference and interference	5. Investigating damping
	5. Interpret the relationship between phase difference and path difference	6. Application of damping
	6. Explain examples of wave interference	7. Using resonance to determine an unknown mass
Key Words <mark>Level 2</mark> Level 3	All on Waves NHTW grid	SHM 1-6 NH I W grids
Common	Reviewed in individual feedback sheet	
Misconceptions		
Homework	Learn selection of defs from NHTW grid related to topic	Revision for in-class test
Assessment this	Term 5 – in-class test (WAV)	In-class test and re-test
half-term		
Career	LIFE SKILLS: Visualisation in 3-dimensions	LIFE SKILLS: Numeracy and literacy
opportunities	EMPLOYMENT: Sound engineer, seismologist, seismic geophysicist, Sidescan sonar engineer, construction engineer, bridge or	EMPLOYMENT: Fairground ride design, bridge design to avoid or
Employment	buildings	
Employment Links	buildings	
Employment Links Employability	buildings Aiming high <mark>Literacy</mark> Creativity <mark>Numeracy</mark> Leadership Independence <mark>Listening</mark>	Aiming high Literacy Creativity <mark>Nume</mark>
Employment Links Employability Skills	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble
Employment Links Employability Skills	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble
Employment Links Employability Skills Week 30	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Undependence Undep	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble 1. Test
Employment Links Employability Skills Week 30 (w/b Tues 2 nd	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Independence Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase Independence Independence Independence	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble 1. Test 2 & 3 Model answers from waves test Itest Itest
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May)	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Independence Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase 2. Explain nomenclature of phase description (2pi etc) 2.	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble 1. Test 2 & 3 Model answers from waves test 4. Retest 5. Test 5. Test 5. Test
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May)	buildings Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Independence Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase 2. Explain nomenclature of phase description (2pi etc) 3. Explain examples of wave superposition 4. Evaluation what is meant by coherent waves	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble 1. Test 2 & 3 Model answers from waves test 4. Retest 5-7 Feedback tasks from test 5.4 minute
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May)	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Independence Listening Waves	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble 1. Test 2 & 3 Model answers from waves test 4. Retest 5-7 Feedback tasks from test 5.7 Feedback tasks from test
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May)	buildings Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves Independence Listening Listening Listening Waves Independence Listening Listening Independence Variation Variation Variation Staying positive Variation Variation Variation Maves Variation Variation Variation Independence Variation Variation Variation Staying positive Variation Variation Variation Variation Variation Variation Variation Staying positive Variation Variation Variation Yes Variation Variation Variation Variation <td< th=""><th>Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble 1. Test 2 & 3 Model answers from waves test 4. Retest 5-7 Feedback tasks from test 5.7 Feedback tasks from test</th></td<>	Aiming high Literacy Creativity Nume Communication Presenting Teamwork Proble 1. Test 2 & 3 Model answers from waves test 4. Retest 5-7 Feedback tasks from test 5.7 Feedback tasks from test
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Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 3	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase 2. Explain nomenclature of phase description (2pi etc) 3. S.Explain examples of wave superposition 4. Explain what is meant by coherent waves 5. Explain how a standing/stationary wave forms and identify nodes and antinodes Melde's experiment 6. Chladney's plate experiment Reuben's tube Waves NHTW grid Waves NHTW grid Independence Independence Independence	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. 4. Retest 5-7 Feedback tasks from test 5.7 Feedback tasks from test SHM 1-6 NHTW grids 5.4 Minimized from test 5.4 Minimized from test
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 3 Common Misconceptions	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase . . . 2. Explain nomenclature of phase description (2pi etc) 3.Explain examples of wave superposition . . 4. Explain what is meant by coherent waves 5. Explain how a standing/stationary wave forms and identify nodes and antinodes Melde's experiment 6. Chladney's plate experiment Waves NHTW grid .	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. Retest 5-7 Feedback tasks from test
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Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase . . . 2. Explain nomenclature of phase description (2pi etc) 3. Explain examples of wave superposition 4. Explain how a standing/stationary wave forms and identify nodes and antinodes Melde's experiment . . . Reuben's tube Usually solved by students learning definitions appropriately Learn appropriately selected defs from NHTW grid Term 4 – in-class test (EAT SUR WAV HFS) 	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. 2 & 3 Model answers from test 5-7 Feedback tasks from test 5-7 Feedback tasks from test 5 SHM 1-6 NHTW grids 6 Revision for in-class test 1 In-class test and re-test 1
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this half-term	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase 2. Explain nomenclature of phase description (2pi etc) 3. 3. Explain examples of wave superposition 4. Explain what is meant by coherent waves 4. Explain how a standing/stationary wave forms and identify nodes and antinodes Melde's experiment 8. Chladney's plate experiment Waves NHTW grid Usually solved by students learning definitions appropriately Learn appropriately selected defs from NHTW grid Term 4 – in-class test (EAT SUR WAV HFS) . . .	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. Retest 5-7 Feedback tasks from test
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this half-term Career	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves Staying positive Staying positive Listening Understand what is meant by the terms wavefront, superposition and phase Staylain examples of wave superposition Staylain examples of wave superposinte St	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. 4. Retest 5-7 Feedback tasks from test 5-7 Feedback tasks from test SHM 1-6 NHTW grids
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this half-term Career opportunities Employment	Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase 2. Explain nomenclature of phase description (2pi etc) 3. Explain nomenclature of phase description (2pi etc) 3. S. Explain nomenclature of phase description 4. Explain what is meant by coherent waves 5. Explain how a standing/stationary wave forms and identify nodes and antinodes Melde's experiment 6. Chadney's plate experiment Reuben's tube Usually solved by students learning definitions appropriately Usually solved by students learning definitions appropriately Learn appropriately selected defs from NHTW grid Term 4 - in-class test (EAT SUR WAV HFS) LIFE SKILLS: Numeracy and literacy EMPLOYMENT: Sound engineer, seismic geophysicist	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. 4. Retest 5-7 Feedback tasks from test 5-7 Feedback tasks from test SHM 1-6 NHTW grids SHM 1-6 NHTW grids Revision for in-class test In-class test and re-test LIFE SKILLS: Numeracy and literacy EMPLOYMENT: Fairground ride design, bridge design to avoid or
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this half-term Career opportunities Employment Links	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves I. Understand what is meant by the terms wavefront, superposition and phase 2. Explain nomenclature of phase description (2pi etc) 3.Explain nomenclature of phase description (2pi etc) 3. Explain what is meant by coherent waves 5. Explain how a standing/stationary wave forms and identify nodes and antinodes Melde's experiment 6. Chadney's plate experiment Reuben's tube Waves NHTW grid	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. 4. Retest 5.7 2 & 3 Model answers from waves test 5.7 Feedback tasks from test 5.7 Feedback tasks from test 5.7 SHM 1-6 NHTW grids 5. 5. Feedback tasks from test 5. Revision for in-class test In-class test and re-test 1. 1. LIFE SKILLS: Numeracy and literacy EMPLOYMENT: Fairground ride design, bridge design to avoid or 1.
Employment Links Employability Skills Week 30 (w/b Tues 2 nd May) Key Words Level 2 Level 2 Level 3 Common Misconceptions Homework Assessment this half-term Career opportunities Employment Links Employability chilla	buildings Aiming high Literacy Creativity Numeracy Leadership Independence Listening Communication Presenting Teamwork Problem solving Staying positive Listening Waves . . Understand what is meant by the terms wavefront, superposition and phase . . . 1. Understand what is meant by the terms wavefront, superposition and phase 2. Explain nomenclature of phase description (2pi etc) 3. Explain nomenclature of phase description (2pi etc) 3. Explain now a standing/stationary wave forms and identify nodes and antinodes Melde's experiment Beuben's tube . <th>Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. 4. Retest 5-7 Feedback tasks from test 5-7 Feedback tasks from test SHM 1-6 NHTW grids 5HM 1-6 NHTW grids Revision for in-class test In-class test and re-test LIFE SKILLS: Numeracy and literacy EMPLOYMENT: Fairground ride design, bridge design to avoid or Aiming high Literacy Descenting Creativity Numeracy Communication Descenting Teamwork</th>	Aiming high Communication Literacy Presenting Creativity Teamwork Nume Proble 1. Test 2 & 3 Model answers from waves test 4. 4. Retest 5-7 Feedback tasks from test 5-7 Feedback tasks from test SHM 1-6 NHTW grids 5HM 1-6 NHTW grids Revision for in-class test In-class test and re-test LIFE SKILLS: Numeracy and literacy EMPLOYMENT: Fairground ride design, bridge design to avoid or Aiming high Literacy Descenting Creativity Numeracy Communication Descenting Teamwork

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Week 31	Waves							1-7: Readdress misse	ed CPACs					
(w/b 8 th May)	1. Use the equation	for the speed of	transverse waves of	on a string				,						
(<i>'</i> ,	2. Verify experiment	ally what factors	s affect the frequer	ncy of standing wave	es on a string.									
	3. Waves in an open	tube												
	4. CPAC prep													
	5.: CPAC Sonometer													
	6. CPAC complete ar	nd tidy up write i	up											
Key Words	NHTW grid Waves							Specific to CPAC						
<mark>Level 2</mark>														
<mark>Level 3</mark>														
Homework	Revise for term 5 tes	st						Research for CPAC						
Assessment this	Term 5 – in-class tes	t (WAV)						In class test and CPA	C assessments					
half-term														
Career	LIFE SKILLS: Plaving	a musical string	ed instrument					LIFE SKILLS: Numera	cv and literacv					
opportunities	EMPLOYMENT: Mus	ician, sound eng	ineer					EMPLOYMENT: Fairg	round ride desig	n, bridge design to	avoid or reduce re	sonance by dampi	ng.	
Employment		, 0										, ,	0	
Links														
Employability	Aiming high	Literacy	Creativity	Numeracy	Leadershin	Independence	Listening	Aiming high	Literacy	Creativity	Numeracy	Leadershin	Independence	Listoning
Skille	Communication	Presenting	Teamwork	Problem solving	Staving nositive	independence	Listening	Communication	Dresenting	Teamwork	Problem solving	Staving positive	independence	Listening
SKIIIS		i resenting	Teamwork		Staying positive			communication	Tresenting	Teanwork	1 Oblem Solving	Staying positive		
	TIL & TIZ: CPAC rese	earch and prep												
-														
Week 32	<u>Waves</u>							1-7; Readdress misse	ed CPACs					
(w/b 15 th May)	1. Understand that l	enses focus rays	of light (converger	nt and divergent len	ses)									
	2. Be able to trace the	ne paths of rays	using the 2 ray con	struction through le	nses									
	3. Explain the terms	focal length and	power of a lens											
	4. Use the equation	for the power of	a lens											
	5. Review unit													
	6. Waves test													
Key Words	Waves NHTW grid							Specific to CPAC						
Level 2														
Level 3														
Homework	Waves exam questic	ons						Research for CPAC						
Assessment this	Term 5 – in-class tes	t (WAV)						In class test and CPA	C assessments					
half-term														
Career	LIFE SKILLS: Underst	tanding of long a	ind short sightedne	ess				LIFE SKILLS: Numeracy and literacy						
opportunities	EMPLOYMENT: Opti	cian, Opthalmic	optician, Fibre Opt	ic Cable engineer				EMPLOYMENT: Fairground ride design, bridge design to avoid or reduce resonance by damping.						
Employment														
Links														
Employability	Aiming high	<mark>Literacy</mark>	Creativity	Numeracy	Leadership	Independence	Listening	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening
Skills	Communication	Presenting	Teamwork		-			Communication	Presenting	Teamwork				
	Problem solving	Staying positiv	ve					Problem solving	Staying positiv	e				
IT Skills								IT1 & IT2: Research f	for CPAC and wr	ite up				
Week 33	Waves							1-7. Practise exam p	apers/questions					
(w/b 22 nd Mav)	1. & 2 Model answer	rs from waves te	st						apers, questions					
(,	3. Retest													
	4 – 6 Feedback tasks	from test												
Kev Words	Waves NHTW grid							Specific to unit						
Level 2								•						
Level 3														
Homework	Wayes exam questic	ons												
Accorement this	Term 5 - in-class tos	+ (\ λ /Δ\/)						In class test and CPA	Cassassments					
half to une								in class lest and CPA	C 033535111E1115					
nan-term		andinfl							and and lite					
Career	LIFE SKILLS: Underst	canding of long a	and short sightedne	255 in Cable angineer				LIFE SKILLS: NUMERA	cy and literacy	n bridge design +-	woid on roduce	cononco hu demest	20	
opportunities		cian, Opthalmic	opticiali, Fibre Opt	ic cable engineer				LIVIPLOTIVIENT: Fairg	i ound nue desig	sii, bridge design to	avoid of reduce res	sonance by dampl	ы <u>в</u> .	
Employment														
Links														

Employability Skills	Aiming high Communication	Literacy Presenting	Creativity Teamwork	Numeracy Problem solving	Leadership Staying positive	Independence	Listening	Aiming high Communication	Literacy Presenting	Creativity Teamwork	Numer Proble
Week 34 (w/b 5 th Jun)	Waves 1. Trace the paths of	of rays through l	enses to form ima	ges							
	2. Understand the	terms real image mula to calculate	e and virtual image	ion							
	4. Understand wha	it is meant by pla	ane polarisation. K	now definition.							
	5. Apply application	n to exam questi	ons								
	6. Describe how po	plarisation can be	e used with models	s to investigate stress	es in structures						
Key Words Level 2	Waves NHTW grid										
Level 3								_			
Common Misconceptions	Usually solved by s	tudents learning	definitions appro	priately							
Homework	Learn appropriatel	y selected definit	tions from NHTW {	grid				_			
Assessment this half-term	Mock exam										
Career	LIFE SKILLS: Under	rstanding of eyes	sight defects and h	low they may be recti	fied						
opportunities	EMPLOYMENT: Op	tician, Ophthalm	iic Optician, lightin	g technician							
Employment											
Links											
Employability	Aiming high	Literacy	Creativity	Numeracy	Leadership	Independence	Listening				
Skills	Communication	Presenting	Teamwork	Problem solving	Staying positive			_			
	M /2012							-			
Week 35	1 Detailed knowled	dge of the parts	of the electromag	netic spectrum and t	he frequencies of	electromagnetic ra	diations				
(w/b 12° Jun)	2. Models of waves	s and wave proce		netic spectrum, and t	ine inequencies of						
	3. The existence an	nd properties of t	the electron								
	4. The electronic st	tructure of atoms	S								
	5. Macroscopic em	ission and absor	ption of light								
KoviMorda	6. Photons		ofc					-			
Level 2 Level 3		e-wave quality de									
Homework	Book questions										
Assessment this	Mock exam										
half-term											
Career	LIFE SKILLS: An und	derstanding that	two theories can of the structure tech	co-exist to model two nologies physicist – g	behaviours	ty via PV cells Eng	ineer working				
Employment	with photolumines	cent screens. Nu	iclear Physicist	noiogies physicist g		ty via i v celis. Elig	incer working				
Links		,	,								
Employability	Aiming high	Literacy Dresenting	Creativity	Numeracy Droblem coluing	Leadership	Independence	Listening				
SKIIIS	communication	Fresenting	Teantwork		Staying positive			-			
Wook 26	Waves							-			
$(w/h 19^{th} lun)$	1 Explain the phot	oelectric effect a	and experimental o	observations of it							
	2. Understand how	the photoelectr	ic effect provides	evidence for the phot	on model of Light						
	3. Explain how the	Maltese Cross Ex	xperiment provide	s evidence for the ele	ectron						
	4. Use the photoele	ectric effect equa	ation.								
	5. Practise exam qu	uestions									
Kara Maria d	6. Mini test		dofo					-			
key words <mark>Level 2</mark> Level 3		cie/wave duality	ders								
Common	Learn arguments –	to avoid sill part	cicle name errors								
Misconceptions											
Homework	Half Term waves ex	xam questions									

eracy em solving Staying positive

Leadership

Independence

Assessment this	Mock exam										
half-term											
Career	LIFE SKILLS: An underst	tanding that ty	wo theories can co-	exist to model two	behaviours						
opportunities	EMPLOYMENT: Theore	tical physicist,	alternative techno	logies physicist – ge	enerating electricit	ty via PV cells. Engi	neer working				
Employment	with photoluminescent	screens									
Links											
Employability	Aiming high <mark>L</mark>	<mark>iteracy</mark>	Creativity	Numeracy	Leadership	Independence	Listening -				
Skills	Communication P	Presenting	Teamwork	Problem solving	Staying positive						
Week 37	<u>Waves</u>	Waves									
(w/b 26 th Jun)	1. Explain how diffraction	on experiment	ts provide evidence	e for the wave nature	re of electrons – Y	oung's double slit e	xperiment				
	2. Describe other evide	nce for the wa	ave nature of electr	ons							
	3. Be able to use the de	e Broglie equat	tion								
	4. Understand atomic ii	ne spectra in	n emitted or absor	ei transitions	anargy transition						
	6. Past paper questions	arguing for /	against particle or	wave nature of light	t						
					-						
Key Words	NHTW grid – Particle/w	vave duality de	efs								
Level 2											
Level 3											
Common	Learn arguments – to a	void sill partic	le name errors								
Misconceptions											
Homework	Half Term waves exam	questions									
Assessment this	Mock exam										
half-term											
Career	LIFE SKILLS: An underst	tanding that tv	wo theories can co-	exist to model two	behaviours						
opportunities	EMPLOYMENT: Theore	tical physicist,	alternative techno	logies physicist – ge	enerating electricit	ty via PV cells. Engi	neer working				
Employment	with photoluminescent	screens									
Links											
Employability	Aiming high	<mark>iteracy</mark>	Creativity	Numeracy	Leadership	Independence	Listening				
Skills		resenting	Loomwork		Staving positive						
	Communication F		Teantwork	Problem solving							
			Teamwork								
Week 38	Waves – CPAC	for CDAC To	find the frequency	of a laser							
Week 38 (w/b 3 rd July)	<u>Waves – CPAC</u> Lesson 1 & 2:_Prepare	for CPAC – To	find the frequency	of a laser							
Week 38 (w/b 3 rd July)	Waves – CPAC Lesson 1 & 2:_Prepare 1 Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up -	for CPAC – To	find the frequency	of a laser							
Week 38 (w/b 3 rd July) Key Words	<u>Waves – CPAC</u> Lesson 1 & 2:_Prepare 1 Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle	for CPAC – To – ensure comp e-wave duality	find the frequency blete defs	of a laser							
Week 38 (w/b 3 rd July) Key Words Level 2	<u>Waves – CPAC</u> Lesson 1 & 2:_Prepare 1 Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up – In NHTW grid – Particle	for CPAC – To – ensure comp wave duality	find the frequency blete defs	of a laser							
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3	<u>Waves – CPAC</u> Lesson 1 & 2:_Prepare 1 Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle	for CPAC – To – ensure comp e-wave duality	find the frequency blete defs	of a laser							
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this	<u>Waves – CPAC</u> Lesson 1 & 2:_Prepare t Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle	for CPAC – To – ensure comp -wave duality exam) and re-t	find the frequency blete defs	of a laser							
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term	<u>Waves – CPAC</u> Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e	for CPAC – To – ensure comp e-wave duality exam) and re-t	find the frequency blete defs	of a laser							
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career	Waves – CPAC Lesson 1 & 2:_Prepare t Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst	for CPAC – To <u>– ensure comp</u> e-wave duality exam) and re-t	find the frequency blete defs cest	of a laser exist to model two	behaviours						
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities	Waves – CPAC Lesson 1 & 2:_Prepare t Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret	for CPAC – To – ensure comp -wave duality exam) and re-t tanding that ty tical physicist,	find the frequency blete defs cest wo theories can co- alternative techno	of a laser exist to model two logies physicist – ge	behaviours enerating electricit	:y via PV cells. Engi	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment	Waves – CPAC Lesson 1 & 2:_Prepare t Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent	for CPAC – To – ensure comp e-wave duality exam) and re-t tanding that ty tical physicist, s screens, Nucl	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist	of a laser exist to model two logies physicist – ge	behaviours enerating electricit	:y via PV cells. Engi	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links	<u>Waves – CPAC</u> Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC <u>Lesson 5 & 6 Write-up -</u> In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent	for CPAC – To – ensure comp e-wave duality exam) and re-t tanding that tw tical physicist, c screens, Nucl	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist	exist to model two logies physicist – ge	behaviours enerating electricit	:y via PV cells. Engi	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability	Waves – CPAC Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theored with photoluminescent Aiming high L	for CPAC – To <u>– ensure comp</u> -wave duality exam) and re-t tanding that ty tical physicist, screens, Nucl	find the frequency blete defs cest wo theories can co- alternative techno lear Physicist	of a laser exist to model two logies physicist – ge	behaviours enerating electricit Leadership	y via PV cells. Engin	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills	Waves – CPAC Lesson 1 & 2:_Prepare t Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P	for CPAC – To <u>– ensure comp</u> e-wave duality exam) and re-t tanding that ty tical physicist, c screens, Nucl iteracy Presenting	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist Creativity Teamwork	of a laser exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	y via PV cells. Engi Independence	neer working Listening				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills IT Skills	Waves – CPAC Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P IT1 & IT2: Research f	for CPAC – To <u>– ensure comp</u> -wave duality exam) and re-t tanding that tw tical physicist, c screens, Nucl iteracy Presenting or CPAC and	find the frequency olete defs cest wo theories can co- alternative techno ear Physicist Creativity Teamwork write up	of a laser exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	y via PV cells. Engin	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills IT Skills	Waves – CPAC Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P IT1 & IT2: Research for	for CPAC – To <u>– ensure comp</u> e-wave duality exam) and re-t tanding that ty tical physicist, c screens, Nucl iteracy Presenting or CPAC and	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist Creativity Teamwork write up	of a laser exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	y via PV cells. Engin	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills IT Skills Week 39	Waves – CPAC Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P IT1 & IT2: Research f	for CPAC – To <u>– ensure comp</u> -wave duality exam) and re-t tanding that tw tical physicist, c screens, Nucl iteracy Presenting or CPAC and missed CPACs	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist Creativity Teamwork write up	exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	ty via PV cells. Engin	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills IT Skills Week 39 (w/b 10 th July)	Waves – CPAC Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P IT1 & IT2: Research f 1-7; Readdress earlier r	for CPAC – To <u>– ensure comp</u> -wave duality exam) and re-t tanding that tw tical physicist, c screens, Nucl iteracy Presenting or CPAC and missed CPACs	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist Creativity Teamwork write up	exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	y via PV cells. Engi Independence	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills IT Skills Week 39 (w/b 10 th July) Key Words	Waves – CPAC Lesson 1 & 2:_Prepare t Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P IT1 & IT2: Research for 1-7; Readdress earlier r Specific to CPAC	for CPAC – To <u>– ensure comp</u> e-wave duality exam) and re-t tanding that tw tical physicist, c screens, Nucl iteracy Presenting or CPAC and missed CPACs	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist Creativity Teamwork write up	of a laser exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	y via PV cells. Engin	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills IT Skills Week 39 (w/b 10 th July) Key Words Level 2	Waves – CPAC Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P IT1 & IT2: Research f Specific to CPAC	for CPAC – To <u>– ensure comp</u> -wave duality exam) and re-t tanding that tw tical physicist, c screens, Nucl iteracy Presenting or CPAC and missed CPACs	find the frequency olete defs cest wo theories can co- alternative techno lear Physicist Creativity Teamwork write up	exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	ty via PV cells. Engin	neer working				
Week 38 (w/b 3 rd July) Key Words Level 2 Level 3 Assessment this half-term Career opportunities Employment Links Employability Skills IT Skills Week 39 (w/b 10 th July) Key Words Level 2 Level 3	Waves – CPAC Lesson 1 & 2:_Prepare f Lesson 3 & 4: CPAC Lesson 5 & 6 Write-up - In NHTW grid – Particle Term 6 – P1 Mock (AS e LIFE SKILLS: An underst EMPLOYMENT: Theoret with photoluminescent Aiming high L Communication P IT1 & IT2: Research f 1-7; Readdress earlier r Specific to CPAC	for CPAC – To <u>– ensure comp</u> -wave duality exam) and re-t tanding that tw tical physicist, c screens, Nucl iteracy Presenting or CPAC and missed CPACs	find the frequency olete defs cest wo theories can co- alternative techno ear Physicist Creativity Teamwork write up	exist to model two logies physicist – ge Numeracy Problem solving	behaviours enerating electricit Leadership Staying positive	y via PV cells. Engin	neer working				

Assessment this	In class test and CPAC assessments										
half-term											
Career	LIFE SKILLS: Numeracy and literacy										
opportunities	EMPLOYMENT: Fairground ride design, bridge design to avoid or reduce resonance by damping.										
Employment											
Links											
Employability	Aiming high	<mark>Literacy</mark>	Creativity	Numeracy	Leadership	Independence	Listening				
Skills	Communication	Presenting	Teamwork	Problem solving	Staying positive						
IT Skills	IT1 & IT2: Research	n for CPAC and	l write up								
Week 40	1-7; Readdress earlie	r missed CPACs	i								
(w/b 17 th July)											
Key Words	Specific to CPAC	Specific to CPAC									
<mark>Level 2</mark>											
Level 3											
Homework	Research for CPAC										
Assessment this	In class test and CP	AC assessmer	its								
half-term											
Career	LIFE SKILLS: Numera	cy and literacy									
opportunities	EMPLOYMENT: Fairg	round ride desi	gn, bridge design to a	avoid or reduce res	sonance by dampir	ng.					
Employment											
Links											
Employability	Aiming high	<mark>Literacy</mark>	Creativity	Numeracy	Leadership	Independence	<mark>Listening</mark>				
Skills	Communication	Presenting	Teamwork	Problem solving	Staying positive						
IT Skills	IT1 & IT2: Research	n for CPAC and	l write up								