

	SE Physics - Daily Activities	Content Covered - Unit Plan
M O N D A Y	NO SCHOOL MEMORIAL DAY	Proficiencies addressed: 31. Demonstrate an understanding of the conflicting evidence [Michelson-Morley Interferometer, Photoelectric Effect and Blackbody Radiation] regarding light, its interaction with the environment and the resulting wave-particle duality theory. (CCCS #5.2) 32. Demonstrate an understanding of the application of Special Relativity and its resultant effects on time, length, mass & energy. (CCCS #5.2), (CCCS#5.7)
T U E S D A Y	NO SCHOOL MEMORIAL DAY	Written assignments: Light Particles HW 9:3 #1-4 Interferometer HW 9:3 #5-15 Photoelectric Effect HW 9:3 #16-21 DeBroglie Matter Waves Written assignments: Special Relativity HW 111 #1-7 Length Contraction HW 112 #8-12 Time Dilation HW 113 #1-5 Velocity Transformation [1st quiz on relativity - Length, Time & Velocity] HW 114 #6-16 Mass Expansion HW 115 #1-9 Energy HW 116 #1-16 All Together [2nd quiz on relativity - Mass & Energy]
W E D N E S D A Y	Review: HW 9:3 #1-21 Particle Properties of Light Announce: Quiz 9:4 Particle Properties of Light for Thursday Introduce: Michelson-Morley Interferometer as link to Special Relativity Introduce: Special Relativity [SR] - Length Assign: HW 111 #1-7 Length Contraction & Derivation of Special Relativity - Length	Assigned Reading: Light Waves 9:10a-d Michelson Interferometer 9:13a-d Light – Wave or Particle? 9:14a-h Matter Waves – Louis de Broglie Assigned Reading: Derivation of Special Relativity Time Travel: http://www.cix.co.uk/~antcom/welcome.html http://www.lifesci.sussex.ac.uk/home/John_Gribbin/timetrav.htm GPS Time Correction: http://www.kowoma.de/en/gps/errors.htm
T H U R S D A Y	Double Lab - Period 2 Review: HW 9:3 #1-21 Particle Properties of Light Give: Quiz 9:4 Particle Properties of Light Collect, Grade & Return: HW 9:3 #1-21 Particle Properties of Light Review: HW111 #1-7 SR - Length Contraction Announce: Test - Wave & Particle Properties of Light for NEXT Thursday Introduce: SR - Time Dilation - Simultaneity - Time Travel Assign: HW 112 #8-12 Time Dilation Assigned Reading: Derivation of Special Relativity Length Twin Paradox: http://www.cix.co.uk/~antcom/tp.html GPS Time Correction: http://www.kowoma.de/en/gps/errors.htm	Evaluations: Light as a Wave/Particle Quiz 9:4 Particle Properties of Light Test - Wave & Particle Properties of Light Evaluations: Special Relativity Quiz Special Relativity - Length, Time & Velocity Quiz Special Relativity - Mass & Energy
F R I D A Y	Review: HW 112 #8-12 Time Dilation Introduce: SR - Velocity Transformations Assign: HW 113 #1-5 Velocity Transformation Announce: Quiz Special Relativity - Length, Time & Velocity for Tuesday	The primary goals this week will be to: <ul style="list-style-type: none"> • Complete Wave-Particle Duality • Introduce Special Relativity