

SPH4U Remote Learning Summative (Possible 15% of final mark)

Choose a row or column, or one of the two diagonals. Create a video/slide show/portfolio/study guide showing how well you understand the topics in that row, column, or diagonal. The more connections you make to things you have learned, the better! You can hand in different topics at different times, and they don't all have to be using the same media.

The rules:

- no more than 2 items in each row/column may use material that is not your own work
- if you are using someone else's video, you may not also use their audio
- at least three topics must include discussion of how you would find a mathematical prediction; all topics must discuss conceptual understanding
- there must be at least one practical demo
- each video must have material from each of the 5 units: Wave Nature of Light, Modern Physics, Dynamics, Energy, and Momentum. (You may choose to include something from Fields, which is a unit I chose to cut once we went to remote learning.)
- for the green box(es), a topic of your own choosing from the missing unit; subject to your teacher's approval.
- the blue squares are a free topic: you may choose any other topic as long as it is something that was covered in class; subject to your teacher's approval

Due date for topic choice: May 31

Due date for initial outline: June 7

Due date for final project: Monday, June 15

Rubric

Category		Level 4	Level 3	Level 2	Level 1
Draft:	/10				
Outline shows _____ detail & clarity		outstanding	good	some	limited
Final project:					
Student shows _____ understanding of the topic					
Topic 1	/10	outstanding	good	some	limited
Topic 2	/10	outstanding	good	some	limited
Topic 3	/10	outstanding	good	some	limited
Topic 4	/10	outstanding	good	some	limited
Topic 5	/10	outstanding	good	some	limited
Topic 6	/10	outstanding	good	some	limited
Total	/70				

The Choices

B	I	N	G	O	!!
Special Relativity	Elastic Potential Energy	Double slit pattern	Circular Motion	Choose a physics topic not listed	Energy/ Momentum/ Wave Nature of Light
Elastic Collisions	Choose a physics topic not listed	Photoelectric Effect	Momentum/ Wave Nature of LightL	Hooke's Law	Atwood's Machine
Centripetal Force	Energy/Wave Nature of Light	Inelastic Collisions	Choose a physics topic not listed	Time Dilation	Wave Nature of Light
Single Slit Pattern	Impulse	Forces on an Incline	Simple Harmonic Motion	Modern Physics/ Wave Nature of Light	Choose a physics topic not listed
Choose a physics topic not listed	Particle Nature of Light	Momentum/ Modern Physics	Diffraction Grating	Projectile Motion	Conservation of Energy
Energy/ Momentum/ Modern Physics/ Wave Nature of Light	Fletcher's Trolley	Choose a physics topic not listed	Length Contraction	Conservation of Momentum	Energy/ Modern Physics/ Wave Nature of Light
Possible Topic Choices					
Light	Modern	Dynamics	Energy	Momentum	Fields
double slit	special relativity	projectile motion	elastic pot e	elastic collisions	Coulomb's Law
diffraction grating	time dilation	Atwood's machine	cons of e	inelastic collisions	Field lines
single slit	length contraction	centripetal force	hooke's law	cons of momentum	Mass spectrometers
wave nature of light	photoelectric effect	circular motion	SHM	impulse	
	particle theory of light	forces on incline			
		Fletcher's trolley			