

Grade 10-12

Distance Learning Module 11: Week of: June 15th – June 18th

Physics Level 2 - Modified from [Unit # 8: Light wrap up](#)

End of the year - make up work, review, collection of feedback on online learning: what worked what didn't

Targeted Goals from Stage 1: Desired Results

Content Knowledge:

- light may be represented by a wave or a particle based on observations made
- the electromagnetic spectrum is divided into subsegments based on the energy of the wave and the applications to society
- the speed of all electromagnetic waves is the same ; higher energy waves have higher frequencies and lower wavelengths
- light reflects off of surfaces; smooth surfaces cause images to form and rough surfaces do not
- optical instruments make use of the reflection and refraction of light
- light bends as it moves from one media to another due to the change of the speed of light in the media

Vocabulary:

- Waves
- Crests
- Troughs
- Frequency
- Wavelength
- Amplitude
- Speed of wave travel
- Longitudinal
- Transverse
- Period
- Energy
- Vibration
- Reflection

- Refraction
- Constructive Interference
- Destructive Interference
- Electromagnetic radiation
- Wave model of light
- Particle model of light
- Medium
- Color mixing
- Polarization
- Mirrors
- Lenses
- optical instruments

Skills:

- calculate the wavelength, frequency or speed of an electromagnetic wave given 2 of the 3 variables
- calculate the angle of refraction of light
- determine the direction of bending of light based on the index of refraction of the media

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Return of school property	<ul style="list-style-type: none"> ● Access to a drop off place as planned by the school administration 	All students are to return books, chromebooks and other borrowed school property Senior students are to start preparations for graduation

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Tuesday: Make up work Feedback collection	Online questionnaire	All students are to use this time for make up work All students are to complete online feedback forms
Wednesday: Preparation for graduation	School activities	Senior students are to prepare for graduation. Other students same as above
Thursday: Graduation	School activities	Senior students are to prepare for graduation. Other students same as above

Week criteria for success (attach student checklists or rubrics): *Greater than 75 % earned on University of Texas on-line Homework and Assessment (accounts required), checking in with teacher regarding Zoom/e-mail as needed, completing the comments/questions as needed on Google Classroom/E-mail/in person sessions*

Supportive resources and tutorials for the week (plans for re-teaching): Khan Academy, PhET, Physics Classroom Tutorials, Flipping Physics videos, teacher made videos, Crash course physics videos, textbook