

Name: _____

Date: _____

Period: _____

Transmission and Absorption of Light

The Confocal Fluorescent Microscope uses light to view its sample and relies on stains of biological specimen to get further detail about the cellular biology. To achieve this, a laser is sent through the specimen and is absorbed by the specimen, then transmitted at a different wavelength to the viewer.

Answer the following questions **before** the presentation.

1. How are frequency and wavelength correlated?
2. How is the energy of the laser related to both the wavelength and frequency?
3. Which color has the shortest wavelength? Yellow, Orange, Purple, or Blue.

Answer the following questions **during and after** the presentation.

1. What is a green fluorescent protein?
2. What is a red fluorescent protein?
3. What is DAPI?

Fill in the value **with units** of the following.

What is the energy of each of the wavelengths?

	Absorption Wavelength	Transmission Wavelength
GFP		
DAPI		
RFP		

Can you think of any other application physics has on the other disciplines of science? How much do you think the disciplines of science overlap?