

# Wavelength and Energy

## Summary

Students will calculate energy, frequency, or wavelength. After calculating, students graph their data and answer analysis questions.

## Time Frame

1 class periods of 70 minutes each

## Group Size

Individual

## Materials

- [student sheet](#)  
(attached)  
calculators

## Instructional Procedures

Students should have some understanding of the relationship between wavelength and frequency and frequency and wavelength...this can be reviewed/demonstrated with a slinky stretched between two people and jiggled to make waves at the front of the class. Calculate the energy, and frequency of the first two problems as a class, then have students use the spectrum on the top of the page to predict the color. Remind students to show their work below the table.  
Give students time to finish the problems and graphs on the back of the paper, circulate and provide assistance as needed.  
Review the analysis questions as a class.

## Assessment Plan

### Scoring Guide:

1. Students worked on assignment during class time.....10 pts
2. The spot-checked calculations or analysis questions are correct....20 pts
3. Students completed all the calculations, made the graphs, and responded to each question.....20 pts

## Bibliography

Lesson Design by Jordan School District Teachers and Staff.

## Authors

[Utah LessonPlans](#)