

Study Guide for Exam 4 – Waves, Sound, Electricity & Light

Required Materials:

- Scantron (#882)
- #2 pencil
- Scientific calculator

Optional Materials: Any handwritten note sheets.

Vocabulary

Period	Longitudinal Wave	Electrical Potential
Frequency	Transverse Wave	Electrical Current
Wavelength	Constructive Interference	Incident Ray
Amplitude	Destructive Interference	Reflected Ray

Calculations

1. Relationship between wave speed, frequency and wavelength
2. Ohm's Law
3. Electrical Power
4. Relationship between current in amps, charge in coulombs, and time in seconds

Concepts

5. Factors that affect the speed of sound
6. Parts of a wave and how they relate to characteristics of sound and light
7. Electrical Charge
8. Units for electrical potential, current, resistance, and power
9. Law of Reflection
10. Law of Refraction
11. Series Circuit
12. Parallel Circuit

Be prepared to answer questions on the following experiments

13. Supplemental Activity: Speed of Sound
14. Experiment #20: Electric Circuits
15. Experiment #21 Series and Parallel Circuits
16. Supplemental Activity: Light and Optics