Final Exam Review
Topics to Study
Waves, Sound and Light Unit
2012

Physics:

The study of how matter and energy interact
Law of Conservation of Energy- you can't get something for nothing
Examples of types of energy

Waves:

Parts of a wave: crest, trough, amplitude, wavelength
Types of wave: Mechanical/EM; Longitudinal/Transverse
How to calculate frequency: Speed=wavelength x frequency, etc.

Sound:

What creates sound?
What type of waves are sound waves?
What determines the speed of a sound wave?
How the medium affect the speed of sound
Relationship between frequency and pitch
Timbre: what determines it
Why do different instruments sound the way they do?
Parts of the ear/how the ear works
Doppler Effect

Light:

What is the speed of light?
Characteristics of EM waves
How a prism works
Reflection/refraction/diffraction
Visible Spectrum: ROYGBIV
How color works
Examples of types of EM energy
Infrared/UV light: characteristics, uses
Transparent/Translucent/Opaque