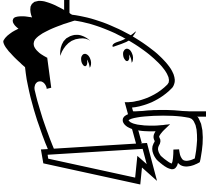


Physical Science

Chapter 17: Mechanical Waves and Sound
Section 1- Mechanical Waves
Pages 500-503

17:1



Key Concept #1: What causes mechanical waves?

Mechanical Wave: DEFINE- _____

Medium: DEFINE- _____

- A _____ is created when a source of energy causes a _____ to travel through a _____

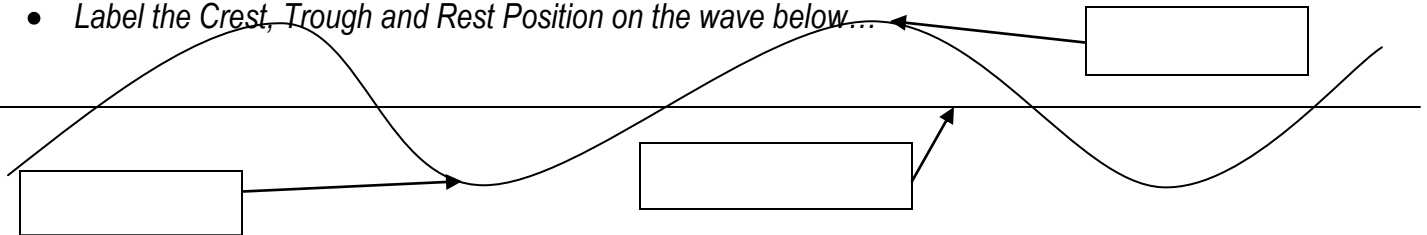
Key Concept #2: What are the two main types of mechanical waves?

- The two main types of _____ are transverse waves and longitudinal waves.

Crest: DEFINE- _____

Trough: DEFINE- _____

- Label the Crest, Trough and Rest Position on the wave below...



Transverse Wave: DEFINE- _____

Longitudinal Wave: DEFINE- _____

- Compression: DEFINE- _____
- Rarefaction: DEFINE- _____

Physical Science

Chapter 17: Mechanical Waves and Sound
Section 2- Properties of Mechanical Waves
Pages 504-507

17:2



Key Concept #1: What determines the frequency of a wave?

Frequency: DEFINE- _____

Hertz: DEFINE- _____

Key Concept #2: How are frequency, wavelength, and speed related?

- A wave's _____ equals the frequency of the _____ producing the wave.

Wavelength: DEFINE- _____

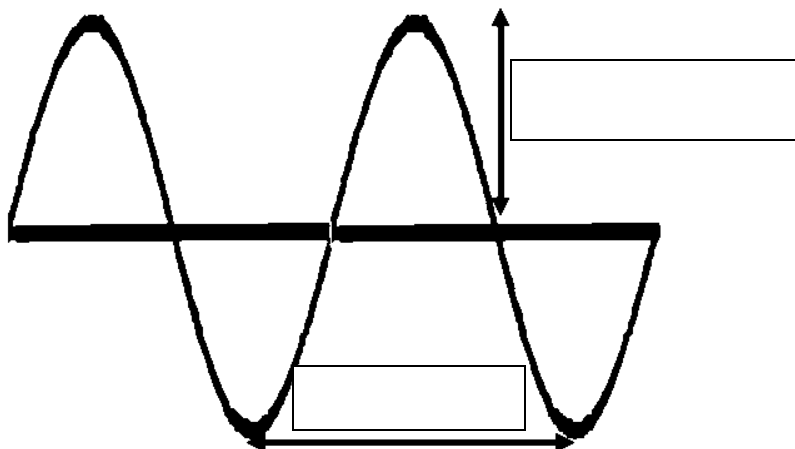
- Increasing the _____ of a wave _____ it's wavelength.

Key Concept #3: How is the amplitude of a wave related to the wave's energy?

Amplitude: DEFINE- _____

- The more _____ a wave has, the _____ it's amplitude.

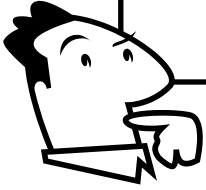
Label the wavelength and amplitude on the wave below...



Physical Science

Chapter 17: Mechanical Waves and Sound
Section 3- Behavior of Waves
Pages 508-512

17:3



Key Concept #1: How does reflection change a wave?

Reflection: DEFINE- _____

• Reflection does not change the _____ or _____ of a wave, but the wave can be _____

Key Concept #2: What causes the refraction of a wave when it enters a new medium?

Refraction: DEFINE- _____

• When a wave enters a medium at an angle, _____

Diffraction: DEFINE- _____

Physical Science

Chapter 17: Mechanical Waves and Sound

Section 4- Sound and Hearing

Pages 514-521

17:4



Key Concept #1: What properties explain the behavior of sound?

Sound Waves: DEFINE- _____

- Many behaviors of sound can be explained using a few properties-- _____ , _____ and _____ , and _____ and _____

Property of Sound	Description
Speed	
Intensity and Loudness	
Frequency and Pitch	

Pitch: DEFINE- _____

Key Concept #3: How does frequency of sound change for a moving source?

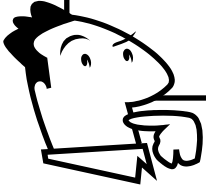
Doppler Effect: DEFINE- _____

- As a source of sound approaches, an observer hears a _____
- When the sound source moves away, the observer hears a _____

Physical Science

Chapter 18: The Electromagnetic Spectrum and Light
Section 1- Electromagnetic Waves
Pages 532-538

18:1



Key Concept #1: How are electromagnetic waves different from mechanical waves?

Electromagnetic Waves: DEFINE- _____

Electric Field: DEFINE- _____

Magnetic Field: DEFINE- _____

- Electromagnetic waves are produced _____
- Electromagnetic waves can travel through a vacuum, _____, as well as through matter.

Key Concept #2: What is the maximum speed of light?

- The speed of light in a vacuum (c) is _____

Key Concept #3: How do electromagnetic waves differ from one another?

- Electromagnetic waves vary in _____ and _____

Key Concept #4: What is the dual nature of electromagnetic radiation?

- Electromagnetic radiation behaves sometimes like a _____ and sometimes like _____

Physical Science

Chapter 18: The Electromagnetic Spectrum and Light

18:2

Section 2- The Electromagnetic Spectrum

Pages 539-545



Key Concept #1: What waves are included in the electromagnetic spectrum?

Electromagnetic Spectrum: DEFINE- _____

- The electromagnetic spectrum includes _____ , _____ , _____ , _____ and _____

Key Concept #2: How is each type of electromagnetic wave used?

Radio Waves

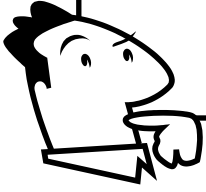
1. _____ 2. _____ 3. _____ 4. _____

Electromagnetic Waves	Description
Infrared Rays	
Visible Light	
UV Rays	
X-rays	
Gamma Rays	

Physical Science

Chapter 18: The Electromagnetic Spectrum and Light
Section 3- The Behavior of Light
Pages 546-549

18:3



Key Concept #1: What three types of materials affect the behavior of light?

- Materials can be _____ , _____ , or _____

Transparent: DEFINE- _____

Translucent: DEFINE- _____

Opaque: DEFINE- _____

Key Concept #2: How does light behave when it enters a new medium?

- When light strikes a new medium, the light can be _____ , _____ or _____
- When light is transmitted, it can be _____ , _____ or _____

Image: DEFINE- _____

Scattering: DEFINE- _____

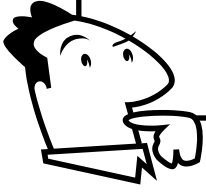
Physical Science

Chapter 18: The Electromagnetic Spectrum and Light

18:4

Section 4- Color

Pages 550-553



Key Concept #1: How does a prism separate white light?

- As _____ passes through a prism, _____
_____ refract more than longer wavelengths, and the _____

Key Concept #2: What determines the color of an object?

- The color of any object depends on what the object is made of and on the color of light _____
-

Key Concept #3: What are the primary colors of light?

Primary Colors: DEFINE- _____

- The primary colors of light are _____ , _____ , and _____