Waves

You should have a main page title Waves on Weekly.

Use the following link to find information: (There are 4 lessons on this page)

<http://www.physicsclassroom.com/class/waves>

I have narrowed down to what you need to know for each lesson and should be on your Weekly page.

**Lesson 1**

1. What is a wave?

A disturbance that repeats up space bad tune bad that is transmitted progressively from one place to the next with no actual transport of matter.

1. What are the different categories of waves? Give examples of each type. (pg. 497 in the book is helpful for this)

Transverse-Electromagnetic Waves

Longitudinal-Sound Waves

**Lesson 2**

1. Define wavelength of a wave and then get a picture from the web of what a wavelength is.

The distance from the top of the crest, or equivalently, the distance between successive, identical parts of the wave.

1. Define frequency of a wave.

The number of events (cycles, vibrations, oscillations, or any repeated events) per time; measured in hertz (or events per time). Inverse of period.

Use this simulation to answer the next question: <http://www.physicsclassroom.com/Physics-Interactives/Waves-and-Sound/Simple-Wave-Simulator/Simple-Wave-Simulator-Interactive>

1. What is the relationship between wavelength and frequency? Screen capture the interactive to show the relationship between wavelength and frequency.



**Lesson 3**

1. What are constructive and destructive waves? \*\* For this question, instead of using the website, use page 498 in the book.

Constructive- The crest of one wave overlaps the crest of another and their individual effects add together.

Destructive- The crest of one wave overlaps the trough of another and their individual effects are reduced.

1. What is Doppler Effect? Provide a real life example.

The apparent change of frequency due to the motion of the source (or receiver) – The sound of a car horn.

Lesson 4 - You do not need any information

Electromagnetic waves