**Waves Website Project**

Students will create a website compiling information on waves.

Steps to complete project:

1. wix.com
2. create account using school email
3. create site and give it a name (your name and waves)
4. Create pages
5. Add information to each page
6. Publish site (**every time you want to save**)
7. Attach link to turn in project on Schoology

**Introduction to Waves**

* Picture and explanation (3-5 sentences)

**Types of Waves (pages 274-278, 784)** [**http://www.physicsclassroom.com/class/waves/Lesson-1/Categories-of-Waves**](http://www.physicsclassroom.com/class/waves/Lesson-1/Categories-of-Waves)

* Vocabulary with definitions-wave,medium,mechanical wave,electromagnetic wave, transverse wave, longitudinal wave, surface wave
* Questions with answers
  + Compare and contrast longitudinal and transverse waves. Provide an example of each wave.
  + Compare and contrast mechanical and electromagnetic waves. Provide an example of each wave.
  + Describe a surface wave, give a picture, and provide an example.
* Picture and explanation (3-5 sentences)

**Characteristics of Waves (279-284)**

* Vocabulary with definitions-crest, trough, amplitude, wavelength, period, frequency, Doppler effect
* Questions with answers
  + Provide an example of the Doppler effect and explain how the example demonstrates the Doppler effect.
  + Label a picture of a wave, including all terms except Doppler effect from this section.
  + How is the speed of a mechanical wave affected by the medium it travels through?
  + How is the speed of an electromagnetic wave affected by the medium it travels through?
  + What is the formula for calculating wave speed? What are the units? Provide an example problem and solve it.
  + A wave traveling in water has a frequency of 250 Hz and a wavelength of 6.0 m. What is the speed of the wave?
* Picture and explanation(3-5 sentences)

**Wave Interactions (pages 286-294)**

* Vocabulary with definitions-reflection,diffraction,refraction,interference,constructive interference,destructive interference,standing wave
* Questions with answers
  + Compare and contrast destructive and constructive interference.
  + What is an example of reflection? How does your example demonstrate reflection?
  + What is an example of refraction? How does your example demonstrate refraction?
  + What is an example of diffraction? How does your example demonstrate diffraction?
  + Provide an example of a standing wave and explain how it occurs.
* Picture and explanation(3-5 sentences)

**Waves Review**

Review Game (sporcle, jeopardy, quizlet, kahoot, etc.)

Complete and attach review (from teacher)