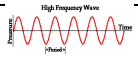
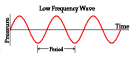
 **2017 will start with a "bang" for Year 4.** 

Our Science this term will focus on Sound.

Year 4 Objectives

- Recognise that there is an association between sound and vibrations – that sound is made when an object vibrates.
- Recognise that vibrations travel through air (or if we're under water, through water) to the ear and that we hear these as sound.
- Recognise that pitch and volume describe different characteristics of a sound, and that these are related to the characteristics of the vibrations: the volume of a sound varies with the size of the vibrations (amplitude), the pitch with the number of vibrations per second (frequency).
- Recognise that these characteristics depend upon the properties of the object making the sound, such as the material it is made from.
- Recognise that sounds get fainter as the distance from the sound source increases.

Topic Outline

Session 1  **Sound Walk** Go on a 'sound walk' through the school and begin to think about how sound is made.
Session 2  **Good Vibrations** Explore sound further and investigate vibrations and how sound travels.
 Session 3  **Pitch and Volume** Investigate pitch and volume by exploring instruments and the different sounds they make.
Session 4  **Pardon?** Understand how we hear sounds and begin to consider ways to reduce what we can hear.
 Session 5 **Sssssshhhhhh!** Plan and conduct an investigation into which material best reduces the sounds we hear.
 Session 6 **The Rock Star Challenge** Present your ear defenders design, and explain your findings.

Have a look at these great websites:

Institute of Physics website has some material about Sound:
http://www.iop.org/activity/outreach/resources/pips/topics/sound/index.html

The Children's University of Manchester has information about how the ear works:
http://www.childrensuniversity.manchester.ac.uk/interactives/science/brainandsenses/ear/