**Vocabulary: Doppler Shift Advanced**



**Vocabulary**

* Doppler shift – the apparent change in the wavelength and *frequency* of sound waves that is caused by the movement of the sound source, observer, or both.
* Frequency – the number of times something happens in a given period of time.
	+ The frequency of a sound wave is equal to the number of waves that pass a point each second.
	+ The unit of frequency is the hertz (Hz). One hertz is one event per second.
	+ The shorter the wavelength of a wave is, the greater its frequency. Longer wavelengths correspond to lower frequencies.
* Pitch – the perceived frequency of a sound.
	+ Shrill sounds like sirens or smoke alarms are high in pitch and frequency.
	+ The deep sounds made by foghorns and tubas are low in pitch and frequency.
* Radar gun – a device that uses the Doppler shift to measure the speed of a moving object.
	+ Radar guns transmit radio waves at a certain frequency. The frequency of the radio waves changes when they bounce off of a moving object. The reflected waves are detected and the speed of the object is calculated based on the frequency shift.