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| **Key Information** | **Key Scientists** | **Subject Specific Vocabulary** | |
| ***What is sound?*** *– Sound is made when objects vibrate. The vibrations enter your ear and you hear them as sound.* | **Ernst Mach (1838-1916)**  **Ernst Mach** was an Austrian physicist and philosopher, noted for his contributions to physics such as the study of shock waves.He also invented ways of measuring sound waves.  **Heinrich Hertz (1857-1894)**  **Heinrich Hertz** was a German physicist who first conclusively proved the existence of the electromagnetic waves**.** The unit of frequency was named the "hertz" in his honour. | **pitch** | The pitch of a sound is how high or low the sound is. |
| ***Reflection of sound –*** *Sound waves can reflect off surfaces. We hear reflections as echoes. Hard, smooth surfaces are good at reflecting sound which is why empty rooms often produce lots of echoes.* | **vibrations** | Vibration means quickly moving back and forth (or up and down). Something that is vibrating may also shake at the same time. Vibrations may be periodic (have a pattern) or random. |
| ***Absorption of sound*** *–Sound waves do not reflect off soft, rough surfaces such as carpets and curtains. This results in the loss of sound and no echoes.* | **volume** | The volume of a sound is how loud or quiet the sound is. A strong vibration will make a loud sound; a weaker vibration will make a quieter sound. |
| ***What sounds can travel through*** *– sounds travel faster in water and slower in the air. Sounds travel more quickly through solids and liquids than through gases.* | **sound waves** | Sound is made up of vibrations or sound waves. Sound waves are formed by objects vibrating. |
|  | **ways to create sound** | bang, blow, shake, pluck |
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