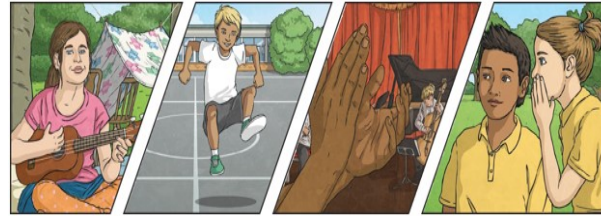


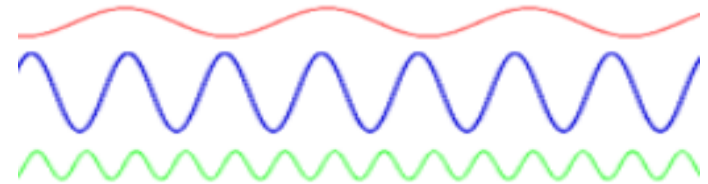


Sound is a type of energy. Sounds are created by **vibrations**. The louder the sound, the bigger the vibration.



Pitch:

• **High pitch** sounds are created by short sound waves.



• **Low pitch** sounds are created by long sound waves.

Key Vocabulary	
Word	Definition
sound waves	invisible waves that move through the air, water and solid objects as vibrations
decibel	a measure of the strength of a sound wave
volume	how loud or quiet a sound is
pitch	how high or low a sound it
frequency	a measure of how many times per second the sound waves travel
amplitude	a measure of the strength of a sound wave
transmit	to pass from one place or person to another



Alexander Graham Bell (1847 – 1922) was an inventor who studied how vibrating objects make sound. He devised a way of sending and receiving the range of sounds in the human voice. The result was the telephone.

If you throw a stone in a pond, it will produce ripples. As the ripples spread out across the pond, they become smaller. When sound vibrations spread out over a distance, the sound becomes quieter just like the ripples in a pond.



How do sounds travel?

Sound waves can travel through different states of matter (solids, liquids and gases).



When you hit a drum, the drum skin vibrates. This makes the air particles closest to the drum start to vibrate as well.

The vibrations **transmit** to the next air particles, then to the next and the next. This carries on until the air particles clos-



Inside your ear, the vibrations hit the eardrum and are then passed to the middle and then the inner ear. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.

