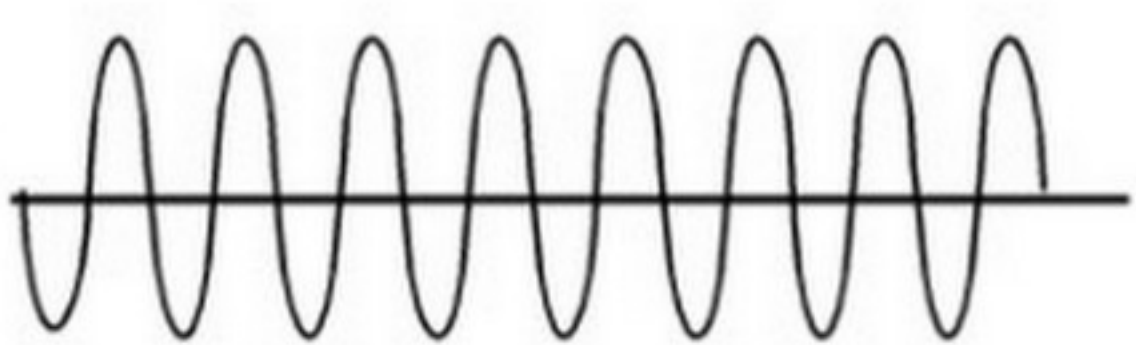
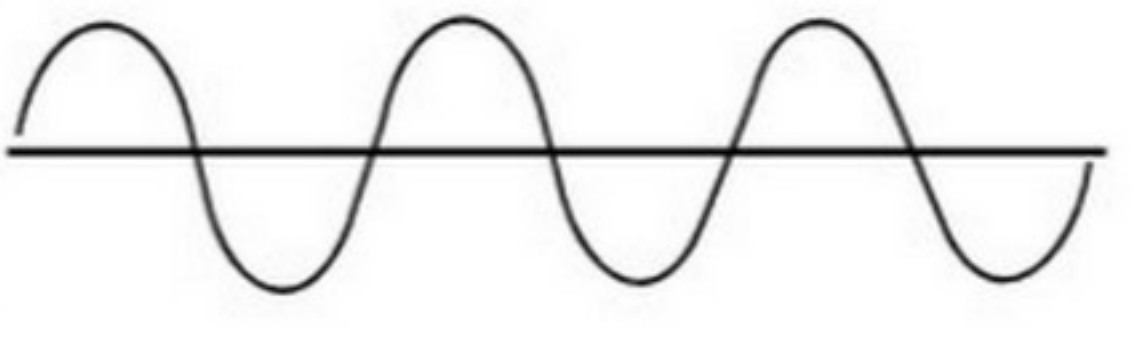
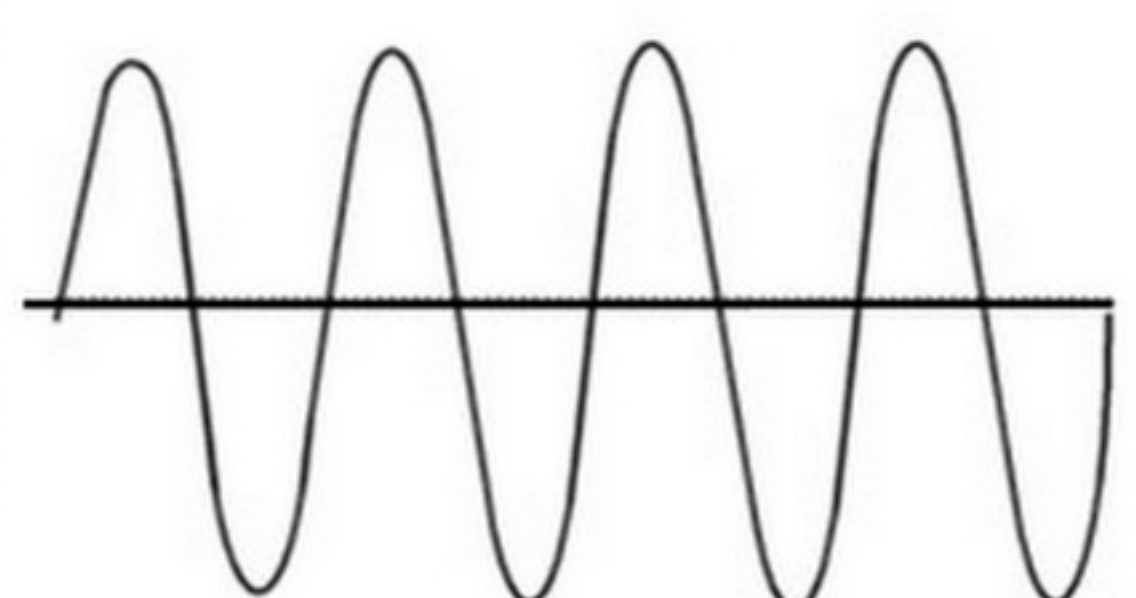
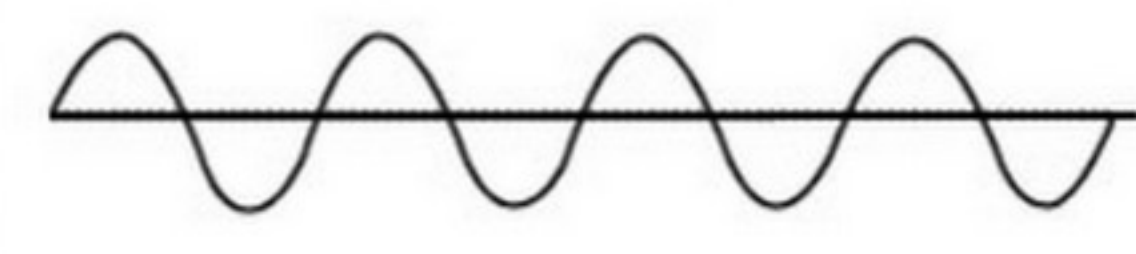


Frequency and Amplitude

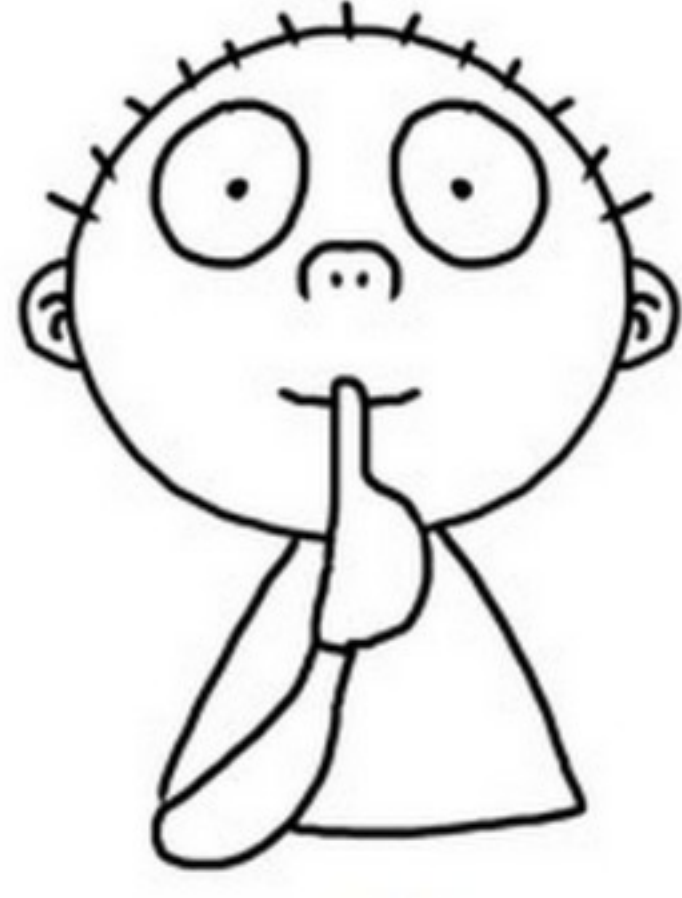

Cut around the entire foldable, then cut on the solid lines to make four flaps. Fold the flap closed on the dotted line and label the outside "pitch" or "volume" to show what the properties affect. Under the flap in your notebook, use adjectives to describe the sound you might hear based on the properties on the front.



high frequency	
low frequency	
high amplitude	
low amplitude	

jivey

Volume and Pitch

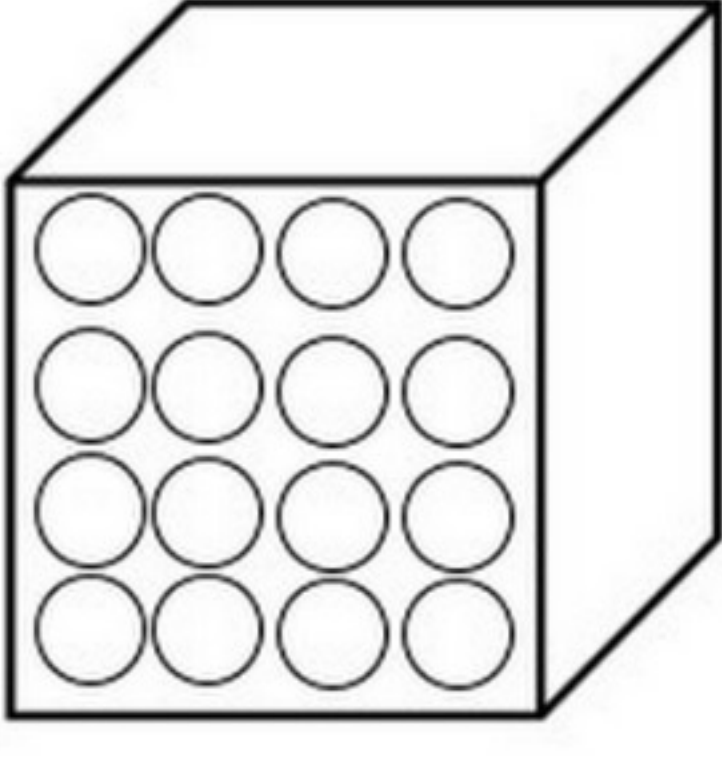
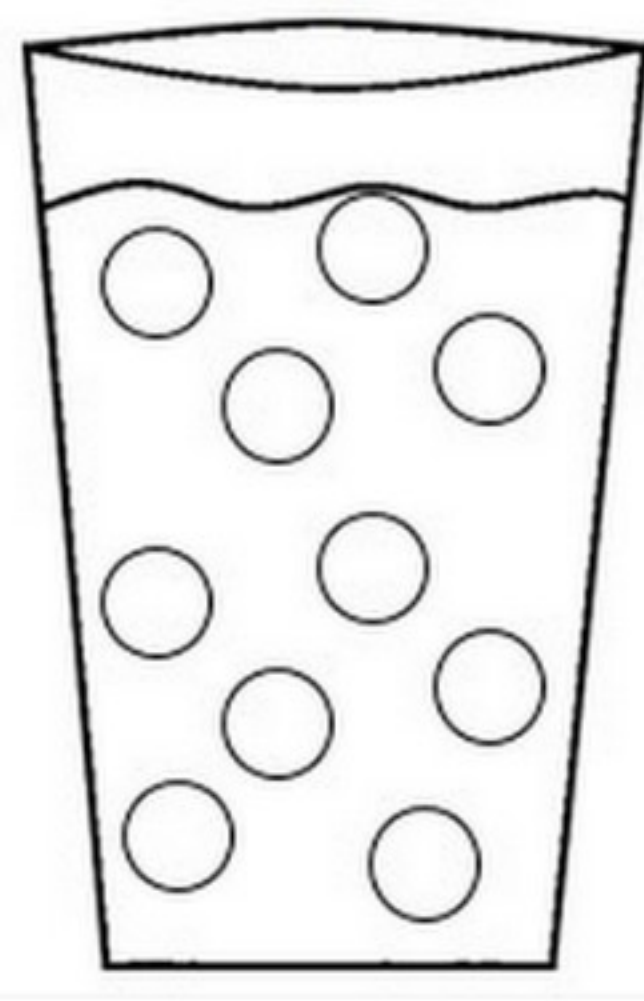

Cut around both foldables, then cut on the solid line to make two flaps on each foldable. Under each flap in your notebook, describe how that sound is made and list some things you've heard that have that property.

Volume	
 soft	 loud




Pitch	
 high	 low

Sounds Travel Through Materials

Sounds Travel Through Materials
Cut around the foldable, then cut on the solid lines to make three flaps on the foldable. Under each flap in your notebook, describe how sound travels through these materials.

Solid	Liquid	Gas
		

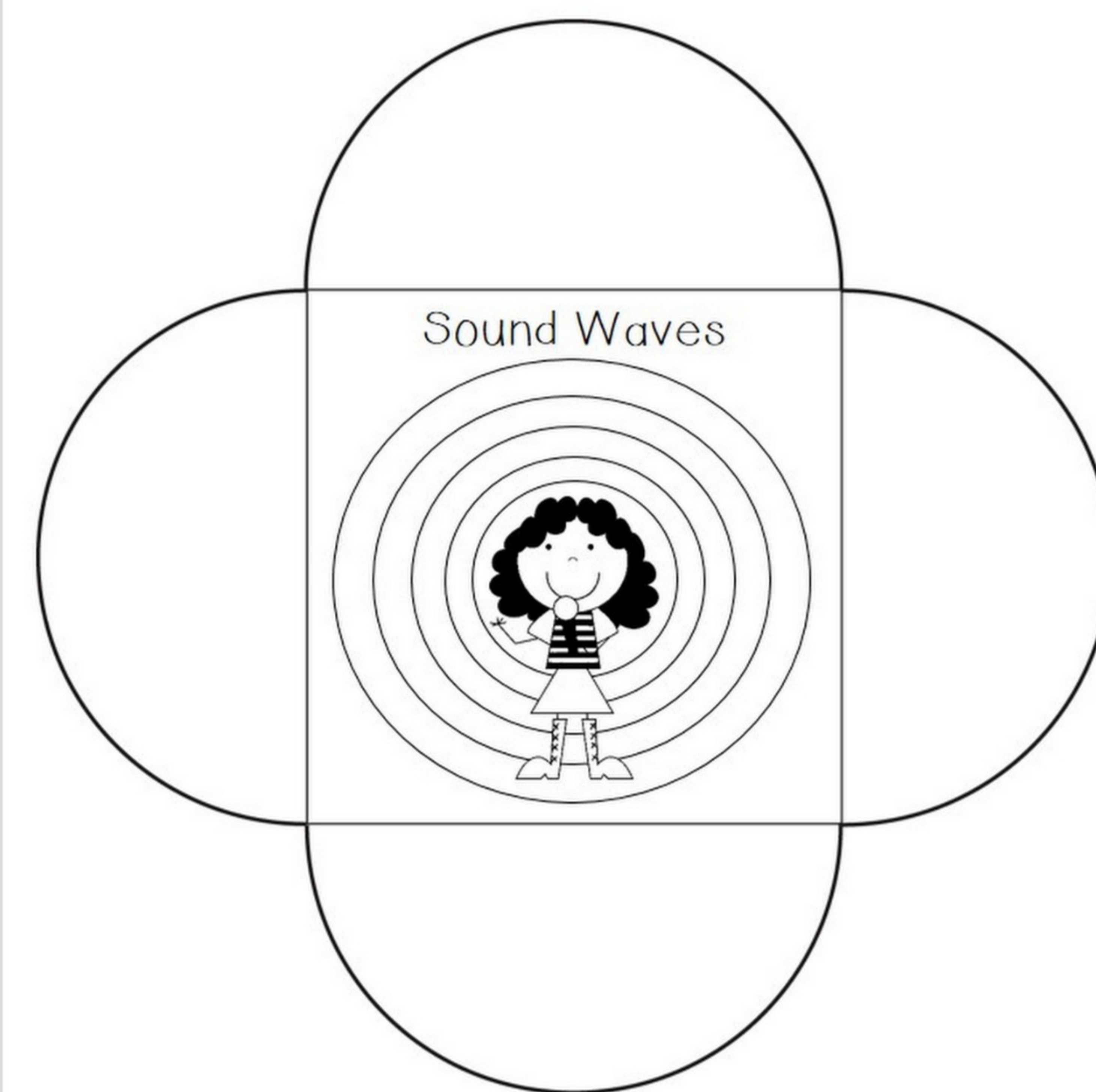
Sounds Travel Through Materials
Cut around the foldable, then cut on the solid lines to make three flaps on the foldable. Under each flap in your notebook, describe how sound travels through these materials.

Solid	Liquid	Gas
		

jivey

Sound Waves

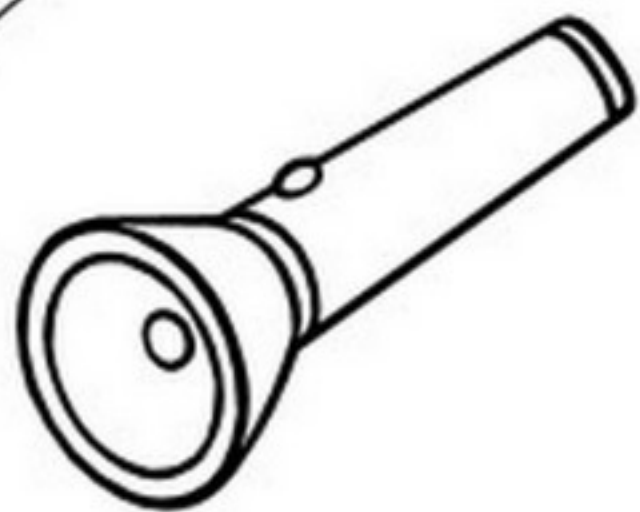

Cut around the foldable. The flaps fold down to cover the picture. On the inside of each flap, describe sound in the picture.



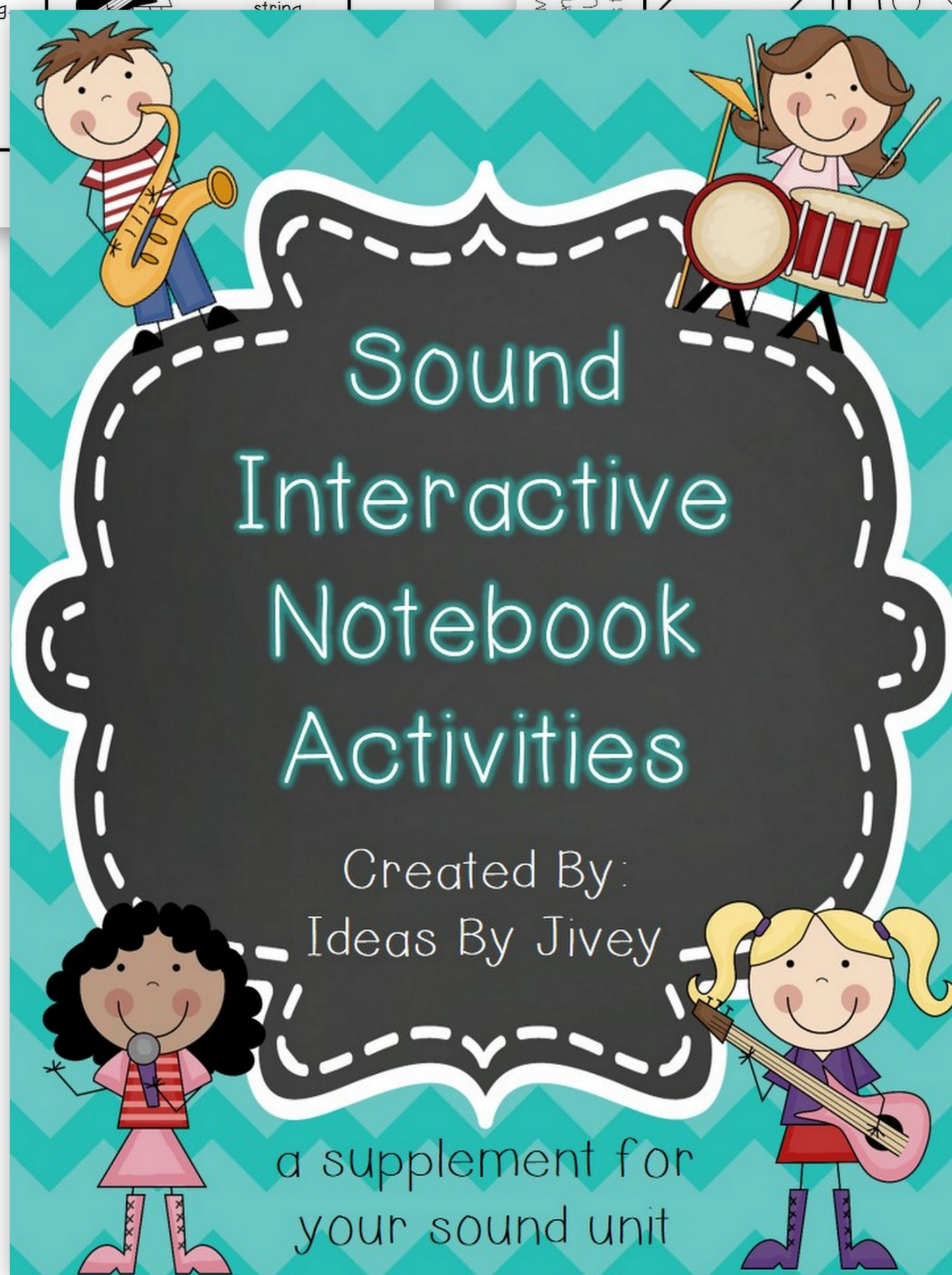
jivey

Light and Sound

Cut around the entire foldable, then cut on the solid lines to make two flaps on the Venn Diagram. Tell about the similarities and differences between light and sound.

 light	both	 sound
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jivey



Suggested Answers:

Sound Waves:

The girl is producing vibrations into the microphone.
Vibrations make sound waves.
Sound waves move in all directions away from the source.
You can't see sound waves, but if you could, they'd look like ripples in a pond.

Sounds Travel Through Materials:

The circles on the pictures are representing the molecules – solids have molecules that are very close together, so sound travels fastest through solids because the molecules can vibrate faster. Liquid molecules are farther apart so sound doesn't travel as fast through liquids like water. Molecules in a gas are even farther apart, so sound travels the slowest through gases like air.

Volume and Pitch:

soft: only a small amount of energy is used – whispers, gently tapping, hums
loud: a large amount of energy is used – slamming door, yelling, concert
high: many sound waves, or vibrations – squeal, siren, tweeting bird
low: few sound waves, or vibrations – tuba, lion roar, thunder

Frequency and Amplitude:

high frequency: pitch- high, shrill
low frequency: pitch- low, deep
high amplitude: volume- loud
low amplitude: volume- soft, quiet

Light and Sound:

Both forms of energy, both travel in waves, both are received by our senses (sight/hearing), both can bounce (reflect/echo)
Light travels in straight waves, and travels slower through water than air
Sound travels in all directions, and travels slowest through air

jivey