SCIENCE · SOUND · GRADES 1–3

What Makes Sound?

Eight facts about vibrations and sound to mark true or false, then feel your own voice.



Name: _____ **Date:** _____

Sound is made when something **vibrates**: it moves back and forth very fast. The vibrations travel through the air to your ears.

Circle True or False.

Sound is made when something vibrates.	True	False
Sound can travel through air.	True	False
Sound cannot travel through water.	True	False
Louder sounds have bigger vibrations.	True	False
A guitar string makes sound while it is still.	True	False
A drum makes sound when its top vibrates.	True	False
Light travels faster than sound.	True	False
Sound can travel through a wall.	True	False

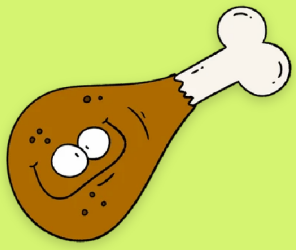
Try it: put your hand on your throat and hum. What do you feel? What is vibrating?

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SCIENCE · SOUND · GRADES K–2

Loud and Soft

Sort eight sounds into loud and soft, then draw the loudest sound you heard today.



Name: _____ **Date:** _____

Write each sound in the right column.

a big drum | a jet plane | a whisper | thunder | a cat purring | leaves rustling | a ticking clock | a fire truck siren

Loud	Soft

Draw the loudest sound you heard today.

Draw the softest sound you heard today.

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SCIENCE · SOUND · GRADES 2–4

High and Low Sounds

Circle high or low for eight sounds, then explain why a big drum sounds low.

Name: _____ **Date:** _____



Pitch is how high or low a sound is. Fast vibrations make **high** sounds. Slow vibrations make **low** sounds. Small, short, tight things vibrate fast.

Circle high or low.

a tiny bell	high	low
a big bass drum	high	low
a bird chirping	high	low
a lion roaring	high	low
a short, thin guitar string	high	low
a long, thick guitar string	high	low
a mouse squeaking	high	low
a tuba	high	low

Why do you think a big drum sounds lower than a small drum?

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SCIENCE · SOUND · GRADES K–2

Sound Walk

Listen for six sounds, write what made each one and whether it was loud or soft, high or low.

Name: _____ **Date:** _____



Sit quietly for one minute, inside or outside, and listen. Write down six sounds you hear.

Sound I heard	What made it?	Loud or soft?	High or low?
1.			
2.			
3.			
4.			
5.			
6.			

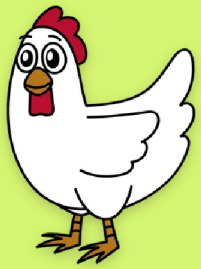
The most interesting sound was… because…

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SCIENCE · SOUND · GRADES 2–4

Rubber Band Guitar

An experiment: stretch rubber bands around a box and find out what changes the pitch.



Name: _____ **Date:** _____

You need: an empty tissue box or shoebox and four rubber bands, some thick and some thin. Stretch them around the box and pluck them.

My hypothesis: the ___ rubber band will make the highest sound. _____

Rubber band	Thick or thin?	Tight or loose?	High or low sound?
1			
2			
3			
4			

Conclusion: what makes a rubber band sound higher? What happens if you pinch the band shorter while you pluck it?

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ANSWER KEY · SOUND · GRADES 1–3

Answer Key: What Makes Sound?

Answers for grown-ups. Some questions have more than one good answer.



Sound is made when something **vibrates**: it moves back and forth very fast. The vibrations travel through the air to your ears.

Circle True or False.

Sound is made when something vibrates.	**True**	False
Sound can travel through air.	**True**	False
Sound cannot travel through water.	True	**False**
Louder sounds have bigger vibrations.	**True**	False
A guitar string makes sound while it is still.	True	**False**
A drum makes sound when its top vibrates.	**True**	False
Light travels faster than sound.	**True**	False
Sound can travel through a wall.	**True**	False

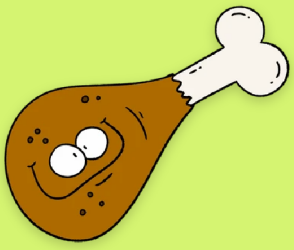
Try it: put your hand on your throat and hum. What do you feel? What is vibrating?

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ANSWER KEY · SOUND · GRADES K–2

Answer Key: Loud and Soft

Answers for grown-ups. Some questions have more than one good answer.



Write each sound in the right column.

a big drum · a jet plane · a whisper · thunder · a cat purring · leaves rustling · a ticking clock · a fire truck siren

Loud	Soft
a fire truck siren	a whisper
thunder	a cat purring
a big drum	leaves rustling
a jet plane	a ticking clock

Draw the loudest sound you heard today.

Draw the softest sound you heard today.

Art © Kevin Coulston

ANSWER KEY · SOUND · GRADES 2–4

Answer Key: High and Low Sounds

Answers for grown-ups. Some questions have more than one good answer.



Pitch is how high or low a sound is. Fast vibrations make **high** sounds. Slow vibrations make **low** sounds. Small, short, tight things vibrate fast.

Circle high or low.

a tiny bell	**high** / low
a big bass drum	high / **low**
a bird chirping	**high** / low
a lion roaring	high / **low**
a short, thin guitar string	**high** / low
a long, thick guitar string	high / **low**
a mouse squeaking	**high** / low
a tuba	high / **low**

Why do you think a big drum sounds lower than a small drum?

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