

GINA & OLLIE EXPLORE PUSHES AND PULLS

A push or a pull is a force.

PUSH

Gina pushes the ball away.



PULL

Ollie pulls the cart closer.



Arrows show the force on each object.
Forces can change how things move.

LOOK & WONDER

Which object is being pulled?

GINA & OLLIE EXPLORE HOW RAMPS HELP

A ramp is a sloping surface.
A gentle ramp can help us move
a load up with less force.

A LONGER WAY UP

The load travels farther than a straight lift.
The ramp supports the load along the way.



UP THE RAMP

STRAIGHT
LIFT

LOOK & WONDER

Trace the sloping path from the ground to the platform.

GINA & OLLIE EXPLORE

SINK OR FLOAT?

Water pushes up on objects.

FLOAT

The cork stays at the surface.



SINK

The steel spoon rests on the bottom.

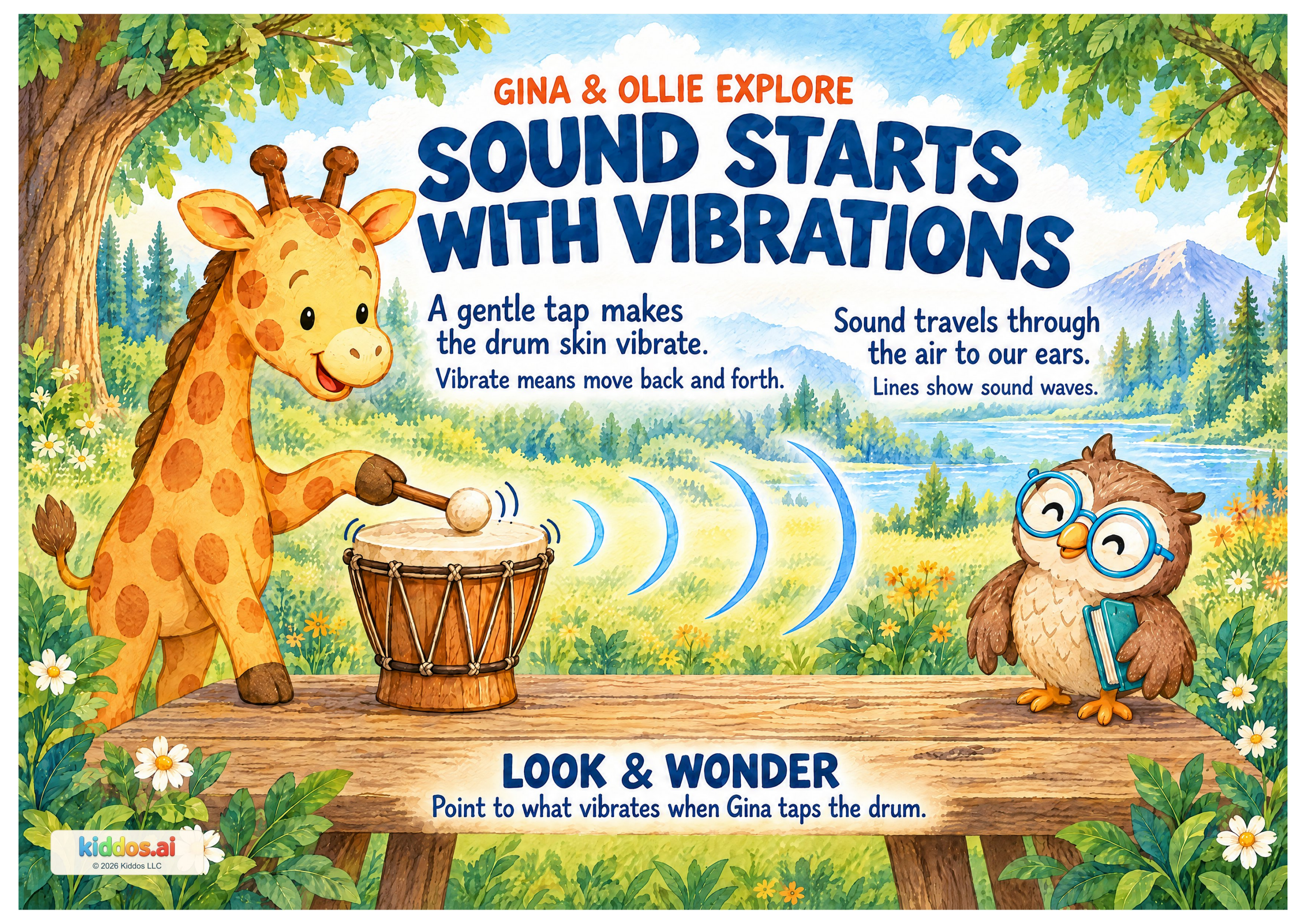
TRY IT

With a grown-up, guess and test safe objects in a shallow bowl.

What happens?

Size alone does not tell us what will float.

Use an unbreakable bowl and large objects. Keep objects out of mouths. A grown-up stays beside you and empties the water afterward.



GINA & OLLIE EXPLORE

SOUND STARTS WITH VIBRATIONS

A gentle tap makes
the drum skin vibrate.
Vibrate means move back and forth.

Sound travels through
the air to our ears.
Lines show sound waves.

LOOK & WONDER

Point to what vibrates when Gina taps the drum.