



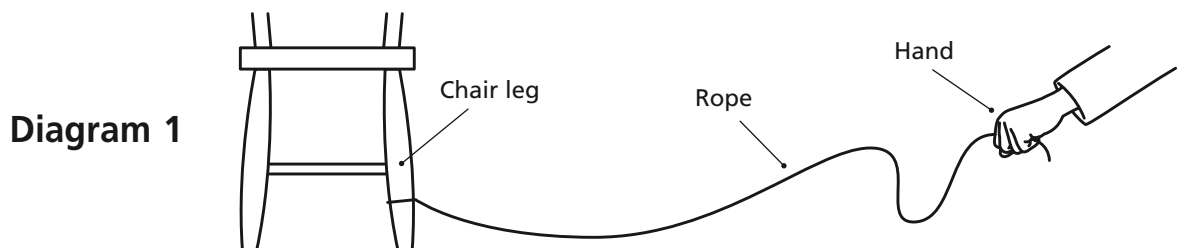
Name: ..... Form: .....

Based on pages 14 and 15 of *Changing sounds*

# Investigating damping

Try this...

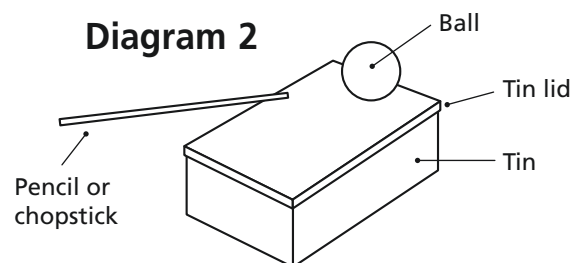
1. Tie a piece of rope to an object close to the floor and rest the rope across the floor.
2. Hold the string taut, and shake the free end with a kind of flicking movement. This will make waves travel along the rope as Diagram 1 shows. (It takes practice!)



3. You have just made a model of a vibrating object and the sound wave it produces in the air.

Use this model to find out what happens to the wave if the object vibrates strongly and then vibrates weakly. On a separate sheet, write down what you found out.

4. Tap on an empty tin with a pencil or chopstick as Diagram 2 shows. Place different objects onto the tin lid one at a time.



How do the objects damp the sound of tapping?



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5. Which objects were most successful in damping the sound?



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6. Which objects were least successful in damping the sound?



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7. Remove all the objects from the tin lid. Tap on it while pressing on the lid with your hand. Press with increasing force on the tin lid. What happens to the sound?



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