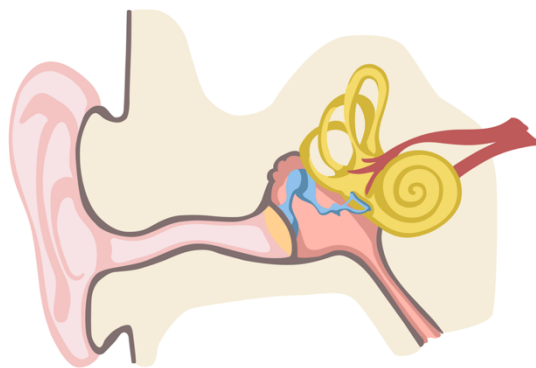


Lesson 3: How can we find out which material makes the best sound insulator?

Quick quiz

1. Which mediums can sound travel through?
 - a. Solids
 - b. Liquids
 - c. Gases
 - d. All three
2. Label the eardrum on this diagram:



Today, you're going to be investigating how to change or even stop sound. Why might you want to do that?

You will need:

- A box eg a shoebox
- A jumper, towel or blanket
- A device to play music eg a phone
- Some wrapping paper
- Other material – perhaps from your recycling bin - that you can wrap around the box

Method:

- Choose a song to play on your device. It will need to be quite a long song!
- Put the device into the box and listen
- Wrap the phone with the different materials. Which one stops the most sound?
This is the best insulator
- Then experiment with using different combinations – maybe a jumper *and* some wrapping paper?

Prediction:

Which material will be the best insulator (stop the most sound)?

I predict that _____ will be the best insulator. I think this because_____.

Results

Complete the table below to show your results:

Material	What happened?

Conclusion

Which material was the best insulator? (stopped the most sound)

<p>From my results, I can conclude that _____</p> <p>_____.</p> <p>I think that the reason for this is _____</p> <p>_____.</p>
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