

Task 16

Alef lesson

#89

Relate

Science Book
Section

6.3

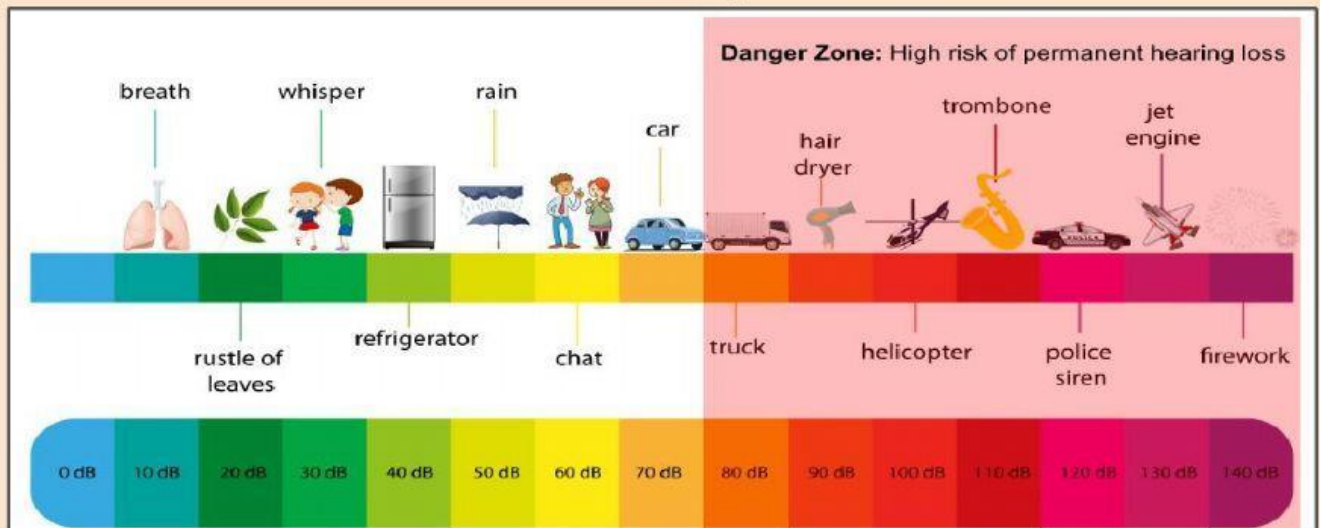
Science Book

Page

231

Sound: Measuring Sound with Decibels (dB)

FULL NAME: _____



How many decibels does
a refrigerator make?

_____ dB

How many decibels does
a breathing make?

_____ dB

How many decibels does
a car make?

_____ dB

How many decibels does
a hair dryer make?

_____ dB

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Science Book

Page

231

Calculating the Intensity of a Moving Sound Wave

FULL NAME: _____

Question

You are sitting 3 m away from your friend who is watching a cartoon on his phone. How will the sound intensity change if your friend moves to a distance of 6 m from you?

Step 1

Step 2

Step 3

write the equation and the variables:

$$r_1 = \text{ } m$$

$$r_2 = \text{ } m$$

$$fraction = \left(\frac{r_1}{r_2} \right)^2$$

Step 1

Step 2

Step 3

Answer

replace the variables with given values:

$$fraction = \left(\frac{\text{ }}{\text{ }} \right)^2$$

Step 1

Step 2

Step 3

Answer

solve the problem

$$fraction = \left(\frac{\text{ }}{\text{ }} \right)^2 = \frac{1}{9}$$

Step 1

Step 2

Step 3

Answer

the intensity decreases to $\frac{1}{9}$ of its original value