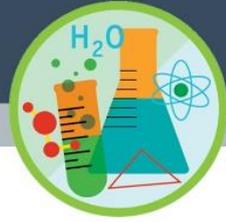


Grade 8



SCIENCE



1.1 Natural and artificial sounds

Activity 1

Go to your home garden and close your eyes for about two – three minutes. Listen well and try to identify sounds that you could hear. Note down them. Then separate them as naturally produced sounds and artificially produced sounds.

Naturally produced sounds	Artificially produced sounds

Now observe how different sounds are produced. Then identify and name the parts that vibrate when those sounds are produced.

Ex: drums produce sound by vibrating the membranes

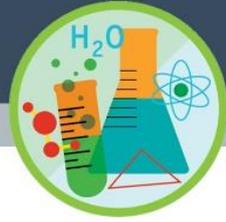
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- ❖ There are naturally produced sounds as well as artificially produced sounds.
- ❖ Sounds are produced due to vibration.



Sources of sound

Recall some of the musical instruments that you have used or have seen. Observe and identify how sound is produced in those musical instruments. Then, categorize them based on the method of sound produced in them.

Ex: Drums produce sound by vibrating the membrane

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❖ You will see that based on the method of production of sound in musical instruments they can be categorized into three as, vibrating the membrane, vibrating the air column and vibrating the strings or rods.

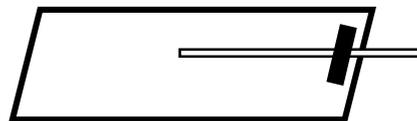
Frequency of vibrations

Activity 2

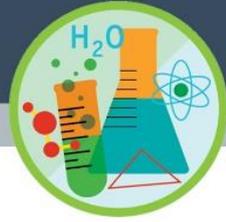
Take a ruler/ a piece of hacksaw blade. Now press it keeping it on a surface as in the two diagrams shown below



(a)



(b)



Now, vibrate the hanging part of the hacksaw blade and observe well. Write down the observations.

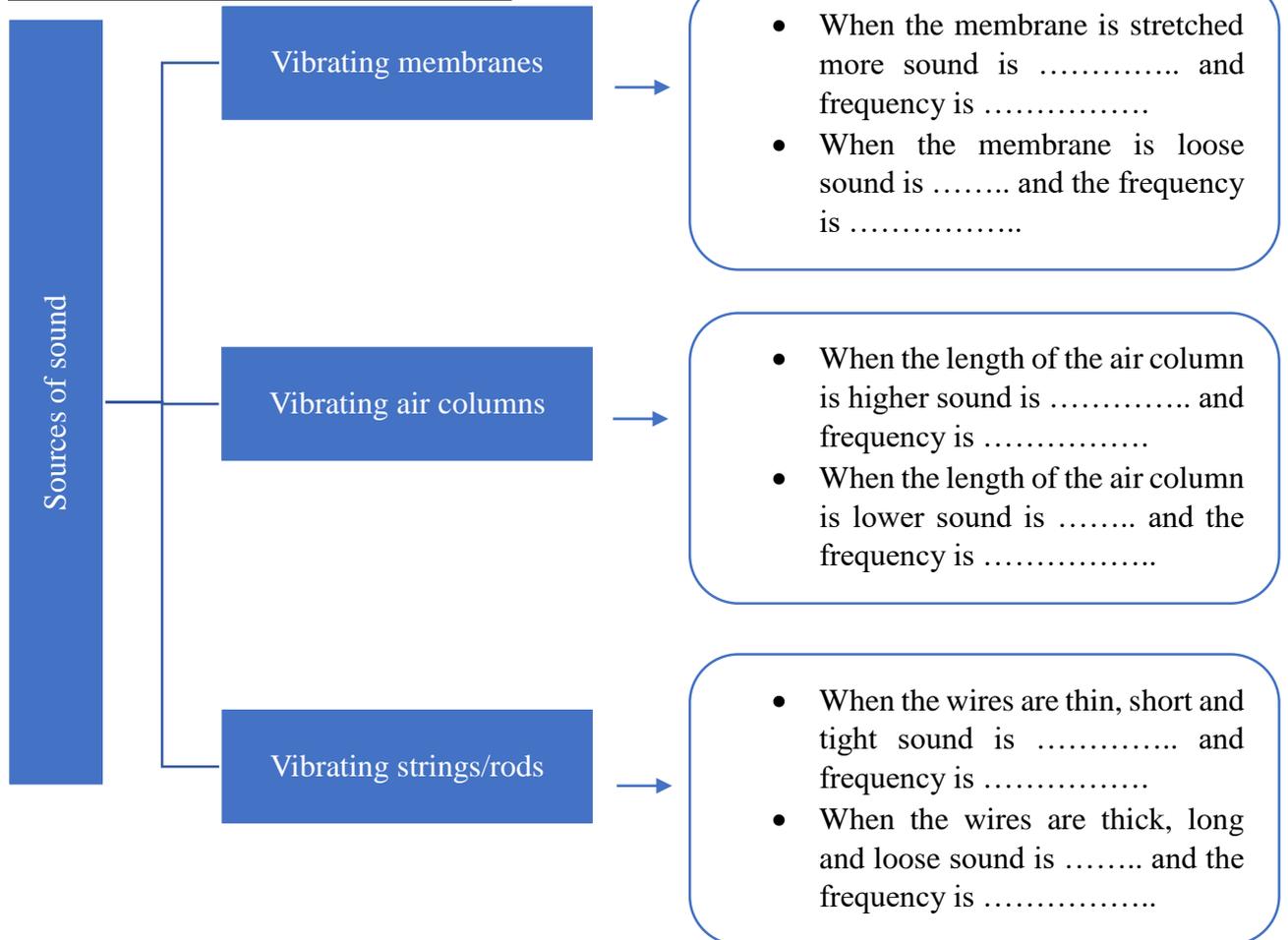
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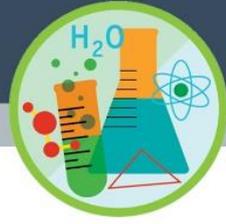
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- ❖ You will be able to observe that the no. of vibrations during a definite period of time is higher in the setup (b) and it's lower in setup (a).
- ❖ The no. of vibrations per unit time is defined as frequency of an object.

How musical instruments produce sound





Activity 3

Prepare a small booklet on “Traditional and modern musical instruments”.

❖ The treatment given using music is known as music therapy.

Write three instances where music therapy is used.

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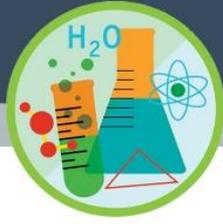
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❖ We are unable to hear sounds of any frequency. We are sensitive only to a range of vibrations and it is known as the limit of hearing.

What is the audible range of humans?

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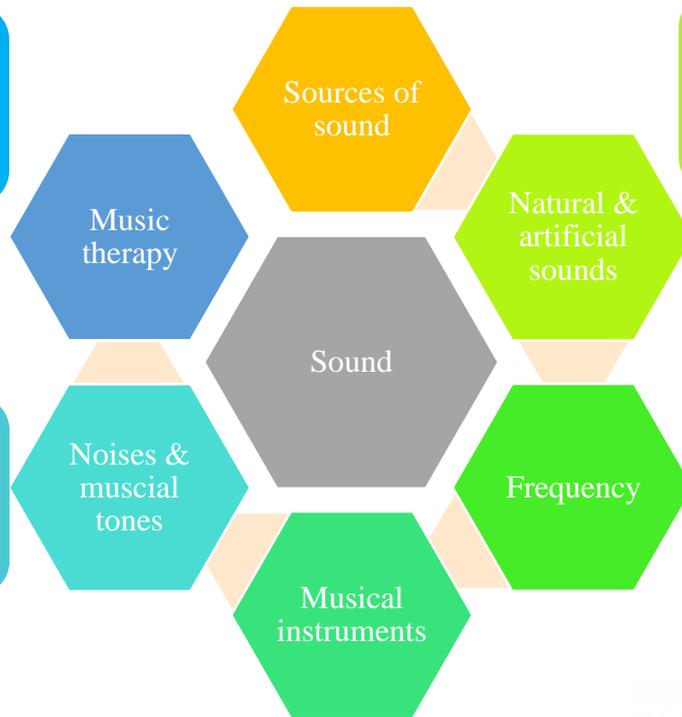
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