ONLINE CLASSES ASSIGNMENT- 33 CLASS VIII

English Assignment

THE RED-HEADED LEAGUE

Learning Outcomes

Knowledge: To know about the central idea of the chapter"THE RED-HEADED LEAGUE"

Understanding: To understand the meaning of the difficult words.

Application: To analyze and use critical thinking to read between the lines.

Skill: To summarize the chapter in their own words and answer the questions based on the chapter.

Summary

Mr. Wilson, a red-haired pawn-shop owner, met the famous detective Mr. Sherlock Holmes to find a solution for the practical joke someone had been playing on him. Mr. Wilson joined the Red-Headed League headed by Mr. Duncan Ross for quite a high salary of four pounds a week, on the recommendation of his assistant Vincent Spaulding who worked with him for half the wages. Wilson's work was to copy the Encyclopedia daily from 10.00 A.M. to 2.00 A.M. After eight weeks he is shocked to find that the office has been dissolved. Holmes and his friend Dr. Watson visit Mr. Wilsons shop at Saxe-Coburg Square. He walks in front of the shop and taps the ground with his walking stick. He knocks the shop door and Spaulding opens. The legs of his trousers are dirty. Holmes asked Spaulding the way to Strand, pretty well knowing it. Holmes asks Dr. Watson to meet him at ten o'clock. Holmes, Dr.Watson and Mr. Jones and a policeman await for the thief at the bank. They hide themselves behind the boxes. At 11.15 p.m. Spaulding and Ross come from underground and are caught. Spaulding is recognized to be the notorious thief John Clay. Later Holmes explains to Dr. Watson that the Red-Headed League was just created to keep Wilson away from his shop. When he went for work daily, they had time to make the tunnel Holmes doubted Spaulding as he worked for half wages and was in the cellar most of the time. When Holmes hit the ground with his walking stick and saw Spaulding's trousers dirty, he understood that he is making a tunnel from the pawn-shop to the Bank at the back of the shop, in the next street. As the Red-Headed League was dissolved and it was Sunday, Holmes was sure the thieves would come and he caught them red handed. A huge bank robbery was cleverly stopped.

Video Link

https://www.youtube.com/watch?v=FZrXYj2bjow&list=TLPQMTUxMjIwMjBdGqldec9-Og&index=8&ab_channel=GisselAndreaEnriquez

QUESTION BANK

A. **Answer the following question in 30-40 words.(2 Marks)**
1. How did Mr Wilson learn of the vacancy? What were the qualifications needed to apply for the vacancy in the Red- Headed League?
2. Why had Mr Jabez Wilson gone to see Holmes?
3. What work was Mr Wilson expected to do for the League?
4. What did Mr Wilson find on the door of the office after eight weeks?
5. Why did Holmes pretend to be lost and ask Spaulding for directions?

HOTS(3 Marks)

1. What 'facts' does Holmes deduce from Mr Wilson's appearance? How did Holmes know these facts?
2. Why did Mr Wilson employ Vincent Spaulding? Why does he spend a lot of time in the cellar?
3. Why did Spaulding and Ross hire Mr Wilson to copy the *Encyclopedia*?

ACTIVITIES

1. FILL IN THE TABLE

CLUES	WHAT DID SHERLOCK INFER/ LEARN?
Tapping the road	
Dirty trousers	
Cellar behind the shop	
Bank on the next street	

2. GIVE EVIDENCE!

Give evidence from the lesson for these qualities in Sherlock Holmes.

QUALITY	EVIDENCE
Intelligent	
Keen Observer	
Daring	

MATHEMATICS – Factorisation

Please watch this video:

https://www.youtube.com/watch?v=ctqviXu-mTE

Learning Outcomes:

i. Students will be able to understand the concept offactorisation.

ii. Students will be able to factorise algebraic expressions by taking common factors and by regrouping terms.

Factors of Natural Numbers

Let us take a natural number, say 30, and write it as a product of other natural numbers, say 30 = 2 × 15 = 3 × 10 = 5 × 6

Thus, 1, 2, 3, 5, 6, 10, 15 and 30 are the factors of 30.

Of these, 2, 3 and 5 are the prime factors of 30. A number written as a product of prime factors is said to be in the prime factor form; for example, 30 written as 2 × 3 × 5 is in the prime factor form.

The prime factor form of 70 is 2 × 5 × 7.

The prime factor form of 90 is 2 × 3 × 3 × 5, and so on.

Factors of algebraic expressions

In algebraic expressions, terms are formed as products of factors. For example, in the algebraic expression 5xy + 3x the term 5xy has been formed by the factors 5, x and y, i.e.,

5xy = 5x X x Y

The factors 5, x and y of 5xy cannot further be expressed as a product of factors. We may say that 5, x and y are 'prime' factors of 5xy.

consider the expression 3x (x + 2). It can be written as a product of factors.

3, x and (x + 2)

3x(x+2) = 3 x Xx y. The factors 3, x and (x +2) are prime factors of 3x (x + 2).

What is Factorisation?

When we factorise an algebraic expression, we write it as a product of factors. These factors may be numbers, algebraic variables or algebraic expressions.

Method of common factors

Factorise 2x + 4.

We shall write each term as a product of irreducible factors;

2x = 2 × x

4 = 2 × 2

Hence 2x + 4 = (2 × x) + (2 × 2)

Notice that factor 2 is common to both the terms.

Observe, by distributive law

2 × (x + 2) = (2 × x) + (2 × 2)

Therefore, we can write

2x + 4 = 2 × (x + 2) = 2 (x + 2)

Thus, the expression 2x + 4 is the same as 2 (x + 2). Now we can read off its factors:

they are 2 and (x + 2). These factors are irreducible.

Factorisation by regrouping terms

Factorise: 2xy + 3 + 2y + 3x

Rearranging the expression, as 2xy + 2y + 3x + 3, allows us to form

groups (2xy + 2y) and (3x + 3) leading to factorisation. This is regrouping.

we regroup the expression as: 2xy + 3x + 2y + 3.

2xy + 3x + 2y + 3 = 2 × x × y + 3 × x + 2 × y + 3

= x × (2y + 3) + 1 × (2y + 3)

= (2y + 3) (x + 1)

Factorise 6xy − 4y + 6 − 9x.

Solution:

Step 1 Check if there is a common factor among all terms. There is none.

Step 2 Think of grouping. Notice that first two terms have a common factor 2y;

6xy − 4y = 2y (3x − 2) ……………………………………….(a)

change the order of last two terms

− 9x + 6, the factor (3x − 2) will come out;

−9x + 6 = −3 (3x) + 3 (2)

= − 3 (3x − 2) ……………………………………………….(b)

Step 3 Putting (a) and (b) together,

6xy − 4y + 6 − 9x = 6xy − 4y − 9x + 6

= 2y (3x − 2) − 3 (3x − 2)

= (3x − 2) (2y − 3)

The factors of (6xy − 4y + 6 − 9 x) are (3x − 2) and (2y − 3).

Activities:

I

Using the following method, factorise $5x^2 − 10x$

$$
\begin{aligned}
4x^2 + 6x &= \boxed{2} \times 2 \times \boxed{x} \times x && + && \boxed{2} \times 3 \times \boxed{x} \\
&= 2 \times \boxed{x} \times 2 \times x && + && 2 \times \boxed{x} \times 3 \\
&= \boxed{2x} \times 2x && + && \boxed{2x} \times 3 \\
&= && 2x(2x+3)
\end{aligned}
$$

II

Q-) The area of a rectangle is x^2+ x y + 8x + 8y. Find its length and breadth.

Solve the following Questions:

Q-1) Find the common factor of $6a^2b^2$, $24a^2b$, $36\ ab^2$ [1 Mark]

Q-2) Factorise: $-16z + 20z^3$ [2 Marks]

Q-3) Factorise: $-4a^2$+ 4ab -4ac   [2 Marks]

Q-4) Factorise: 15 xy − 6x + 5y − 2   [3 Marks]

Q-5) Factorise: z − 7 + 7 x y − x y z   [3 Marks]

HOTS

Q-1) Factorise:

$$X^2 + \left(a + \frac{1}{a}\right)x + 1$$

Q-2) Factorise:

$$p^2x^2 + c^2x^2 - ac^2 - ap$$

Q-3) Factorise:

$$ax + by + cx + bx + cy + ay$$

Q-4) Factorise:

$$(ax + by)^2 + (ay - bx)^2$$

असाइनमेंट – 33 विषय - हिंदी

कक्षा – आठवीं उपलब्धकर्ता मिस रंजना

Please watch this videos

https://www.youtube.com/watch?v=8LQgFvurdzQ

https://www.youtube.com/watch?v=IOp_7Gehai8

अधिगम बिंदु :-

- विद्यार्थी वाक्य के बारे में जान पाएंगे।
- विद्यार्थी वाक्य के भेदों से अवगत होंगे।

वाक्य

वर्णों के सार्थक समूह को ही शब्द कहते हैं । शब्दों के सार्थक समूह को वाक्य कहा जाता है।

वाक्य के अंग -

वाक्य के मुख्य रूप से दो अंग होते हैं -

उद्देश्य
विधेय

उद्देश्य

किसी भी वाक्य में कर्त्ता ही उद्देश्य होता है अर्थात वाक्य में जिसके संबंध में कहा जाता है उसे उद्देश्य कहते हैं। यदि कर्त्ता के साथ कोई विशेषण शब्द प्रयुक्त होता है तो उसे कर्त्ता का विस्तारक माना जाता है। कर्त्ता का विस्तारक भी उद्देश्य के ही अंतर्गत आता है।

उद्देश्य-
कर्त्ता+कर्त्ता का विस्तार

उद्देश्य

जैसे राम घर जाता है।
 यहां पर केवल **राम** ही उद्देश्य है।
सुंदर बालक हंसता है ।
यहां पर **सुंदर** शब्द विशेषण है जो कर्ता का विस्तारक है।

अन्य उदाहरण:-

आजकल कोई भी किसी का साथ देने को तैयार है।
मोहन तो सुरेश का भाई है।
वह अच्छा लड़का है।
राधिका का ससुर मेरा भाई है।

विधेय

वाक्य में क्रिया के संबंध में जो कुछ भी कहा जाता है उसे विधेय कहते हैं। विधेय के अंतर्गत वाक्य में निहित क्रिया, क्रिया का विस्तारक, कर्म, कर्म का विस्तारक साथ ही पूरक तथा पूरक का विस्तारक को शामिल किया जाता है।

जैसे - राम घर जाता है।
 यहां **जाता है** तथा घर विधेय के अंतर्गत आते हैं। यहां क्रिया व कर्म का प्रयोग हुआ है।

विधेय
क्रिया+क्रिया का विस्तार

विधेय

अब हम **उद्देश्य और विधेय को उदाहरणों के माध्यम से** समझने का प्रयास करते हैं-
उद्देश्य और उसके विस्तार से संबंधित उदाहरण -

- **मेरे लिए तो** सब कुछ आसान है।
- **राम** बाग में जाता है ।
- **सीता** फल खाती है।
- **अच्छा बालक** रोज पढ़ता है।
- **राम ने** रावण को मारा।
- **गाय** घास खा रही है।

- **मोहन** बाजार जा रहा है।
- **मेरी बहन गीता** आज विदेश जाएगी।

विधेय तथा विधेय का विस्तार -

- आज तो अच्छा हुआ।
- राम ने रावण को मारा ।
- पक्षी आकाश में उड़ रहे हैं ।
- वह बालिका बहुत अच्छा काम करती है।
- सुंदर मोर बहुत देर से नाच रहा है।
- मेरा भाई नरेश तो रात दिन मेहनत करता है।

यहां रेखांकित सभी शब्द विधेय के विस्तार को प्रकट करते हैं।

Slogan Writing
नारा लेखन

नारा भारत समेत विश्व में कहीं भी नया नहीं है। इसका अपना एक पूरा इतिहास है। प्राचीन काल से ही नारों का प्रयोग विभिन्न क्षेत्रों में किया जाता था जो लोगों को प्रेरित करने की क्षमता रखते थे। विश्व के सभी देशों में अलग-अलग उद्देश्य से नारों को लिखा या बोला जाता रहा है।

हमारे देश में आजादी के वक्त भी बहुत से नारे प्रचलित हुए जिन्होंने भारतीय जनमानस में बहुत गहरा प्रभाव डाला था। जैसे करो या मरो , वंदे मातरम , "तुम मुझे खून दो , मैं तुम्हें आजादी दूंगा" आदि । इन नारों में शब्दों के पीछे स्वतंत्रता आंदोलन का पूरा इतिहास छिपा हुआ है।

नारे लेखन का उद्देश्य
नारे लिखने के निम्न उद्देश्य हो सकते हैं।
1. किसी विशेष व्यक्ति , संस्था , सामाजिक राजनैतिक या किसी भी अन्य अभियान की ओर लोगों का ध्यान खींचने के लिए।
2. समाज को एक आदर्श संदेश देना।
3. लोगों को किसी कार्य विशेष के लिए प्रेरित करना।
4. सामाजिक अभिव्यक्ति को प्रकट करना।
5. लोगों को किसी उद्देश्य के प्रति जागरूक करना। जैसे जल ही जीवन है में पानी को बचाने के लिए लोगों को जागरूक करने का उद्देश्य छुपा है।

नारे / स्लोगन की विशेषताएं
1. नारा ऐसा होना चाहिए जो सीधे लोगों के दिलों में उतर जाय।
2. नारा अगर तुक व लय के साथ लिखा गया हो तो , बहुत अच्छा होता हैं।
3. नारों में सरल , लोकप्रिय व प्रचलित शब्दों का प्रयोग होना चाहिए। ताकि लोगों की जुबान पर जल्दी चढ़ जायेगा ।
4. स्लोगन या नारा बहुत ही संक्षिप्त और प्रभावशाली होना चाहिए।
5. स्लोगन गंभीर अर्थ लिए हुए होना चाहिए।
6. नारे की शब्द सीमा अधिकतम 10 या 12 शब्दों की होनी चाहिए।
7. नारों में विषय विशेषता का वर्णन सटीक होना चाहिए।
8. नारे में हमेशा एक आदर्श संदेश होना चाहिए , जो लोगों को प्रेरित व जागृत कर सके।

9. मौलिकता , रचनात्मकता व आकर्षक शब्दों का प्रयोग करना चाहिए।
10. शब्दों का उचित चयन व आपसी तालमेल आवश्यक है।
11. पर्यायवाची शब्दों का प्रयोग किया जा सकता हैं।

जैसे

- **किसी भी एक विषय पर नारा लिखिए। (कोई भी एक 5)**

1. **जल है तो , जीवन है।**
2. **बेटी बचाओ , बेटी पढ़ाओ।**
3. **आत्मनिर्भर भारत , समर्थ भारत।**
4. **" पेड़ लगाओ , पेड़ बचाओ** ,

- कृषि बिल पर किसानो के धरने से होने वाली परेशानी का वर्णन करते हुए आने मित्र को **पत्र लिखिए।** (5)

9. मछुआरों का सपना

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- मछुआरों का एक समूह एक बड़ी मछली पकड़ने की आशा लेकर नाव पर सवार हुआ। समुद्र में नाव पर सवार वे सोच रहे थे कि काश कोई बड़ी मछली मिल जाए तो उसे बेचकर मिले धन से वे लोग भी अच्छा खाना खा सकें ।

  रोज़ की तरह दाल-चावल न खाकर वह भी कम से कम एक दिन तो काजू करी, चिकन और नारियल की चटनी के साथ बिरयानी खा सकें। पूरा दिन गुजर गया परन्तु एक भी मछली उनके जाल में नहीं फँसी।

  वे सभी बहुत ज्यादा निराश होकर नाव में बैठ गए। तभी अचानक एक शार्क से जान बचाने के लिए बड़ी टूना मछली नाव में कूदी और तुरन्त मछुआरों ने उसे पकड़ लिया।

  इस अचानक मिले उपहार को पाकर वे बहुत खुश थे। उन्होंने उस टूना मछली को बेच कर मिली बड़ी धन राशि से रात को अच्छा खाना खाया और इस प्रकार उनका सपना पूरा हुआ।

- **उपरोक्त कहानी को पढ़कर कोई अच्छी सी कहानी लिखिए | (5)**

LESSON PLAN / Assignment (December)4week

Subject-civics

Sub teacher-Poonam Pathak

Topic:- Chapter 9- public facilities

Sub Topic :- Public Facilities,The Government's Role.
Learning Objectives:- To make Students acknowledge about thepublic facilities and role of the government.

Methodology:-PPT, Video and word file

You tube link : https://youtu.be/hflI9jMz3S4

 Activity 1:- List the cities where people arefacing Water crisis in India.

Activity 2:- Debate on:why should government be responsible for providing public facilities

Public Facilities:

- Things like electricity, public transport, schools, and colleges, etc.which are necessary for survival are known as public facilities.

- Public facilities are provided so that its benefits can be shared by many people.

- This is the responsibility of government to make public facilities available to every individual and no one should be discriminated just on the basis of social or economic division.

The Government's Role:

- One of the most important functions of the government is to ensure that these public facilities are made available to everyone:

  - Making provision for education & setting up of schools & colleges.

  - Improving health & sanitation facilities.

  - Ensuring equal distribution of food throughout the country.

  - Improving the means of transport

  - Maintenance of public utility works like post offices, railways and roads

- Private companies operate for profit in the market. Public facilities are related to people's basic needs.

- The main source of revenue for the government is the taxes collected from the people and the government is empowered to collect these taxes and use them for such programmes.

- For instance, to supply water, the government has to incur costs in pumping water, carrying it over long distances, laying down pipes for its distribution, treating the water for impurities and finally collecting and treating wastewater.

- It meets these expenses partly from the various taxes that it collects and partly by charging a price for water. This price is set so that most people can afford a certain minimum amount of water for daily use.

- One of the most important tasks of government is to ensure the availability of resources to everyone.

- By making the administration strict and effectively implementing the schemes government can help underprivilaged.

- The government by utilising the revenue collected in better social schemes and using the resources in better manner can ensure the well being to maximum of the population.

Assignments:-

1mark

1.How can we prevent water related diseases?
(a) By using pond water
(b) By using clean and safe water
(c) By using boring water
(d) All of these

2.Who carries the responsibility of providing public facility to the people?
(a) Government
(b) Public
(c) Private organisation
(d) None of these

3.Wherefrom the government gets funds for providing Public facility?
(a) Income Tax collected from the people
(b) Fines collected from the people
(c) Other taxes collected from the people
(d) All of these

4.Match the following:

Column A	Column B
(a) Basic needs	(i) New Delhi Municipal Corporation
(b) Public facilities	(ii) Food, water, shelter and clothes
(c) Municipal Corporation of Delhi	(iii) MCD
(d) NDMC	(iv) Diarrhoea
(e) Water related disease	(v) Health, water, school facility

3 marks:-

1. Mention the role of the government in providing public facilities.
2. How does the government raise fund to provide public facilities?
3. What are public facilities and Under which article does the Constitution of India recognize the Right to water?

5 marks:-

1. How can it be said that the private companies which provide public facilities are not suitable for public actually?

(Critical thinking based question/HOTS)

1. Write the comparative study of water distribution in different places of Chennai. Do you think all people get equal distribution of water?

Class ⑧th   subject: social science (Geography)

Chapter 4:   <u>AGRICULTURE</u>

<u>Study material</u>

<u>Learning outcomes:</u> students will be able to know the need & different method of agricultural development.

<u>Agricultural Development</u>

Efforts made to increase farm production in order to meet the growing demand of the increasing population-achieved in many ways such as

- Increasing the cropped area.
- The number of crops grown.
- Improving irrigation facilities
- Use of fertilisers and high yielding variety of seeds
- Agricultural development is to increase food security.

Developing countries with large populations practice intensive agriculture where crops are grown on small holdings mostly for subsistence-larger holdings are popular for commercial agriculture.

- **A Farm in India:** A typical Indian, Munna Lal has a farmland of about 1.5 hectares. He purchases high yielding varieties of seeds from the market every alternate year. mostly subsistance farming exist in India. Labour availability and small size of farm lands make it for farmers to use intensive farming practices.

- **A Farm in the USA:** The average size of a farm in the USA is about 250 hectares. The farmers grow corn, soyabean, wheat, cotton and sugarbeet. Crops are grown at commercial level. large farm lands and less population is suitable to development of this type of farming in developed nations.

VIDEO LINK:-

https://www.youtube.com/watch?v=iB9qXXcvLxg&feature=youtu.be

https://www.youtube.com/watch?v=UehxbEtY2GM&feature=youtu.be

https://www.youtube.com/watch?v=Ea6CXaynIOE&feature=youtu.be

    I.   **<u>State whether each of the following statements is true (T) or false (F).</u>**

1. Favourable topography of soil and climate is vital for agriculture.
2. Household labour is involved in subsistence farming.
3. A transport network is significant for plantation agriculture.
4. Major plantations are found in tundra regions.
5. In the USA, the farmer usually resides on the farm.

II. <u>Match the items given in Column I correctly with those given in Column II</u>

Column I	Column II
(i) Rice	(a) moderate temperature and rainfall during growing season
(ii) Wheat	(b) low rainfall, high to moderate temperature
(iii) Millets	(c) high temperature, high humidity and rainfall
(iv) Maize	(d) moderate temperature, rainfall, bright sunshine
(v) Cotton	(e) cool climate, well distributed high rainfall throughout the year
(vi) Coffee	(f) 210 frost-free days
(vii) Tea	(g) wet climate and well-drained loamy soil

VERY VERY SHORT ANSWER TYPE QUESTIONS :-

1. In what sorts of areas are agricultural activities concentrated?
2. What is arable land?
3. How is subsistence farming classified?
4. What is the main feature of plantation agriculture?
5. Which two countries lead in the production of jute?

Short Answer type questions.

1. Name the inputs and outputs of agriculture in general. Also mention the various operations involved.

2. Enlist the climate conditions required for the proper cultivation of rice. Mention the main regions of its production.

Long amswer type questions.

1. How can agricultural development be achieved
2. Write the meaning of food security. Describe the types of agriculture practiced in different parts of the world.

Activity:- *Find out the differences between the life style of farmers in the USA & India on the basis of pictures collected from magazines, Book, News paper & the Internet.*

<div align="center">

SUBJECT-SCIENCE

CHAPTER –SOUND

REVISION WORKSHEET

</div>

Link-https://youtu.be/hvG8a-Q4evg

LEARNING OBJECTIVE-Students will know the characteristics of sound. They will be aware about the working of musical instruments.

Study material-

Introduction to waves

- The sound is produced by vibrating objects.
- They travel from one place to another in the form of waves. Hence, the name sound waves.

*transverse
*longitudinal

Transverse waves

- Particle motion is to **perpendicular** the direction of wave motion.
- This type of wave is a mechanical wave called a transverse wave. E.g.: Light, or even Mexican wave in a stadium.

Longitudinal waves

- When the particles of the medium travel **parallel** to the direction of the wave motion by means of successive compression or rarefaction.
- It is also a mechanical wave.
- Example: a slinky

To know more about Sound Waves, .

Sound Properties

Introduction to sound waves

– Sound needs a medium to propagate. The matter or material through which sounds propagates is called a medium.
– Sound cannot travel in a vacuum. The moon does not have an atmosphere, hence, you can hear on the moon.**Wavelength**

The distance between two successive crests or troughs (or) successive compressions and rarefactions is called as wavelength (λ). The SI unit of wavelength is metre (m).
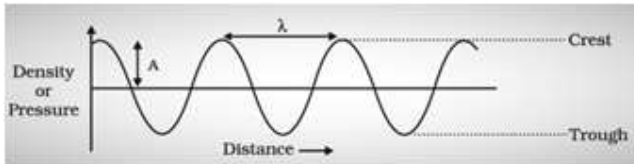
Time period

Time taken by two consecutive compressions or rarefactions to cross a fixed point is called a Time period (T). The SI unit of time in seconds (s).

Frequency

The number of compressions or rarefactions per unit time is called frequency (v).
The SI unit of frequency is Hertz. The SI unit is Hertz (s−1)

$v = \frac{1}{T}$
Speed (v), wavelength (λ) and frequency (v) are related as $v = \lambda v$

Amplitude

The magnitude of disturbance in a medium on either side of the mean value is called an amplitude (A).
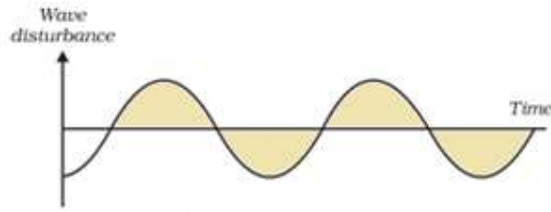As shown in the figure below, the unit of amplitude will be the density or pressure. Distance between mean position and crest (maximum displacement).
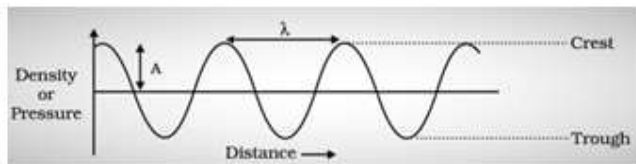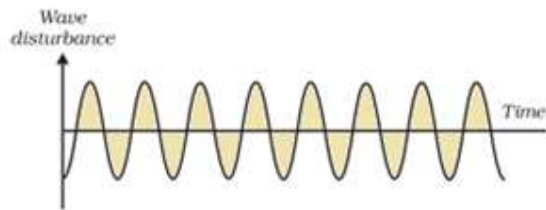

Amplitude (A)

Pitch

The number of compressions or rarefactions per unit time. Directly proportional to frequency.

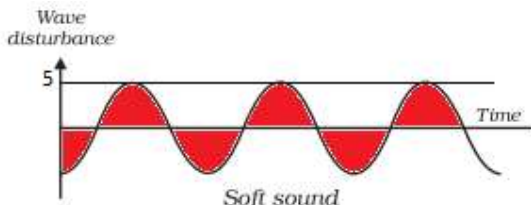*Wave shape for a low pitched sound*
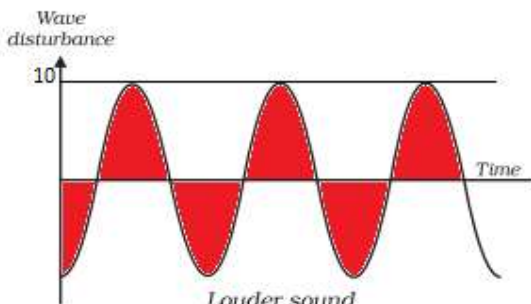

Wave shape for a high pitched sound

Representation of low and high pitch

Higher force → higher amplitude → louder sound

The amount of sound energy flowing per unit time through a unit area is called the intensity of sound.

Soft sound

Louder sound

The Intensity of Sound

Note and Tone

A sound of a single frequency is called a tone. A sound produced with a mixture of several frequencies is called a note.
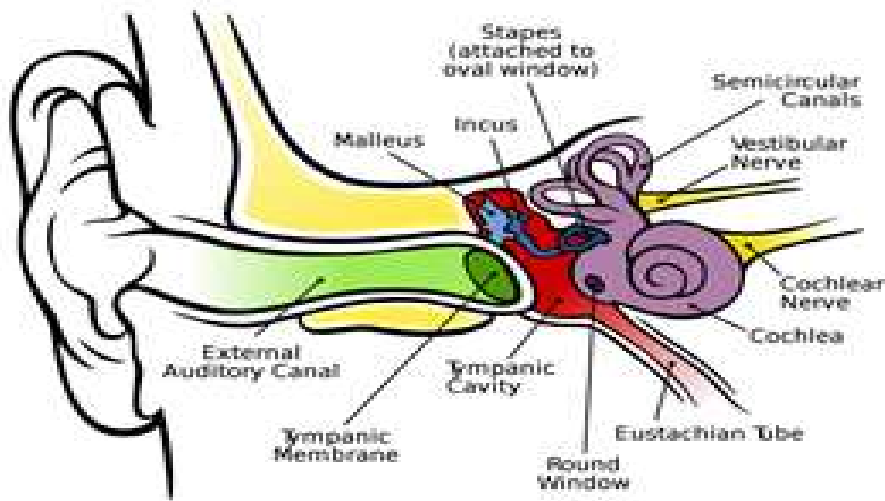
Speed of sound

Sound travels through different media with different speeds. Speed of sound depends on the properties of the medium: pressure, density and temperature

Human Ear

The ear is a sensitive organ of the human body. It is mainly involved with detecting, transmitting and transducing sound and maintaining a sense of balance is another important function of the human ear. Human ear includes:

- Pinna-The outer ear or the visible part of the ear is called the pinna.
- Pinna collects sound from the surroundings.
- Auditory canal -Sound passes through a tube called an auditory canal.
- Ear drum-Eardrum (tympanic membrane) vibrates in response to incident sound waves.
- Hammer anvil stirrup -Vibrations are amplified and transmitted further by three bones hammer, anvil and stirrup in the middle ear to the inner ear.
- Cochlea-In the inner ear, cochlea converts pressure signals into electrical signals.
- Auditory nerve-Electrical signals are transmitted by the auditory nerve to the brain for interpretation.

Human Ea

Speed of sound: Solids > Liquids > Gases

Speed of sound in air = 331 m/s at 0°C and 344 m/s at 22° C

ACTIVITY-1 Take a rubber band. Put it around the, longer side of a pencil box (Fig. 13.2). Insert two pencils between the box and the stretched rubber. Now, pluck the rubber band somewhere in the middle. Do you hear any sound? Does the band vibrate?

Plucking the rubber band

ACTIVITY 2-Take 6-8 bowls or tumblers. Fill them with water upto different levels, increasing gradually from one end to the other. Now take a pencil and strike the bowls gently. Strike all of them in succession. You will hear pleasant sounds. This is your Jaltarang (Fig. 13.5).

Jaltarang

ACTIVITY -3
Aim-To show that sound can be produced in liquid also.
Material required- Water tumbler, water, bell.
Procedure- *Fill the tumbler with water.
*Ring the bell inside the tumbler

Observation –You can hear the ringing sound.
**Result**- Sound can travel through the liquid.
ACTIVITY -4
Aim-To show that sound needs medium to travel.
Material required- flask, vacuum pump, electric bell , cock.
Procedure- *Arrange the electric bell inside the flask,as shown in figure .
- Evacuate the air of flask with the help of vacuum pump gradually
- Switch on the electric bell
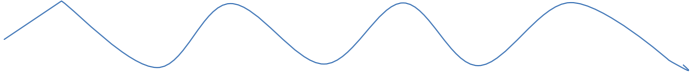- Start evacuate the air of flask.

Bell jar experiment showing sound
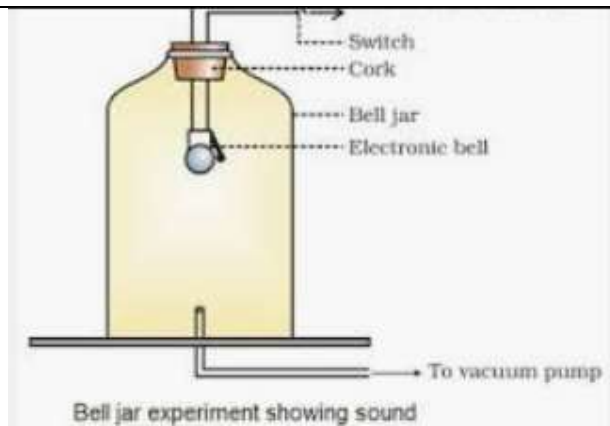
Observation -*Initially we are able to hear the sound clearly,
*As we start evacuation the sound become less loud.
*At the stage when we have evacuated the flask completely, we are not able to hear the sound.
Result- Sound needs medium to travel.
Feedback and comments on completion understanding and difficulties.

	One mark
Q1	Why sound waves are called mechanical waves?
Q2	Define the longitudinal wave and give two examples of it.
Q3	Will we be able to talk on moon ? give reason.
	Two mark
Q4	Show by an activity that sound can travel through liquid.
Q5	What types of waves are produced in tabla and in the string of violin?
Q6	The two waves are given below, differentiate between them on the basis of (a)Amplitude or loudness (b)Frequency or pitch
	Three mark
Q7	An object vibrates 50 times in 5 second, calculate the time period and frequency.
Q8	Explain how the human ear works. Draw its well labeled diagram.
	HOTS
Q1.	(a) Which of the following graphs is for girl voice?

	Label amplitude, wavelength and frequency of given wave ?
Q2.	How does velocity of sound change in air with (a) change in temperature (b) change in air pressure ?
Q3.	Why are the ceilings concert halls and conference halls are made curved? Explain by giving a diagram.
Q4.	(A)What is the range of frequencies associated with (1) Infra sound, and (2) ultra sound? (B) Which has shorten wavelength-infrasonic or ultrasonic?
Q5.	The town hall building is situated close to Amit's house. There is a clock on the top of the tower hall building which rings the bellevery hour. Boojho has noticed that the sound of the clock appears to be much clearer at night.Explain.

SUBJECT SANSKRIT
MR. SANJAY

अधिगम बिंदू : -
। छात्रो को पत्र लेखन का ज्ञान ।
२ छात्र वाक्य रचना सीखे गे।
3 पत्र के ज्ञान से विषय रुचिकर होगा ।
प्र . अधोलिखित उपपद विभा क्ति के पदो को वाक्यों में प्रयोग कीजिए :-
(विना, प्रति, अलम्, बहिः, नम :, दा ,रूच ,गम ,अन्तः, सह)