EAST POINT SCHOOL

ASSIGNMENT 22 CLASS VIII

English Assignment (MS. EKTA KHURANA)

ACTIVE AND PASSIVE VOICE

Learning Outcomes

- Distinguish passive voice from active voice.
- Learn the rules of changing the sentences from active voice to passive voice.
- Convert active voice sentences into passive voice.
- Understand the usage of past participle forms.

Voice is that form of a verb which tells us whether the subject does something or has something done to it.

Example:
Active Voice: He is writing a letter.
Passive Voice: A letter is being written by him

Rules to Changing Voice:

a) Subject should be placed in place of Object and object should be in place of Subject
b) "By" is used with a non or a pronoun for showing doer
c) We can change voice of only a transitive verb that is a verb with an object
d) We can't change voice of an intransitive verb that is a verb without an object

Rules to Change of verb:-

Tense	Verb in Active Voice	Verb in Passive Voice
Present Indefinite	Verb + s, es, ies	Is / are / am + PP verb
Past Indefinite	Past Verb	Was / Were + PP verb
Future Indefinite	Shall \ will + verb	Shall / will +be + PP verb
Present Continuous	Is / are / am + Verb + ing	Is / are /am being + PP verb)
Past Continuous	Was /were + PP verb + ing	Was /were + being + PP verb

Present Perfect	Has + Have + PP verb	Has + have + been + PP verb
Future Perfect	Shall / Will + Have + PP verb	Shall/Will+ have +been +PP verb

Examples: Present

a) You do not tell a lie (Active Voice)
A lie is not told by you (passive voice)
b) I eat a mango (active voice)
A mango is eaten by me (passive)

Examples: Past

a) He wrote a letter (active Voice)
A letter was written by him (Passive Voice)
b) You did not take tea (Active Voice)
Tea was not Taken by you (Passive Voice)

Examples: Future

a) I shall take tea (Active Voice)
Tea will be taken by me (Passive voice)
b) She will sing a song (Active Voice)
A song will be sung by her (Passive Voice)

Examples: Present Continuous

a) He is driving a car (Active Voice)
A car is being driven by him (Passive Voice)
b) I am writing a letter (Active Voice)
A letter is being written by me (Passive Voice)

Examples: Past Continuous

a) She was offering prayers (Active Voice)
Prayers were being offered by her (Passive Voice)
b) What were you doing? (Active Voice)
What was being done by you? (Passive Voice)

FUTURE CONTINUOUS CANNOT BE CHANGED INTO PASSIVE VOICE

Examples: Present Perfect

a) I have bought two pens (Active Voice)
Two pens have been bought by me (Passive Voice)
b) He has posted the letter (Active Voice)
The letter has been posted by him (Passive Voice)

Examples: Past Perfect

a) I had taken food (Active Voice)
Food had been taken by me (Passive Voice)
b) Had he broken your pen? (Active Voice)
Had your pen been broken by him? (Passive Voice)

Example: Future Perfect

a) I shall have finished the work (Active Voice)
The work will have been finished by me (Passive Voice)

b) He will have posted the letter (Active Voice)
The letter will have been posted by him (Passive Voice)

EXERCISE

Q1Change the following sentences into passive voice.

1. My brother has written a novel.
2. She has finished her work.
3. They have rejected the offer.
4. My brother has won a prize.
5. My mother has made a cake.
6. The cat has drunk the milk.
7. The postman has delivered the letter.
8. She has accepted the invitation.
9. Our army has defeated the enemy.
10. Our team has won the match.
11. Scientists have invented a cure for cancer.
12. He has deserted his family.
13. We have registered a complaint with the police.
14. They have not taken a decision.

VIDEO LINK

https://youtu.be/4xASHRA1noI

कक्षा - आठवीं, विषय-हिंदी (MS. RANJANA)

कारक

Please watch this videos

https://www.youtube.com/watch?v=KcNzWVn5qLA

https://www.youtube.com/watch?v=-73ebrbpbgQ

अधिगम बिंदु

विद्यार्थी कारक के विभक्ति चिन्हों से अवगत होंगे।

विद्यार्थी पाठ पढ़ते समय बत्ता सकेंगें की ये कारक है और इसका विभक्ति चिन्ह् ये है।

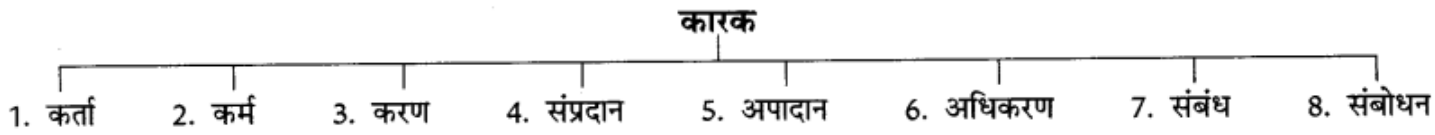
कारक क्या होता है :-

कारक शब्द का अर्थ होता है – क्रिया को करने वाला। जब क्रिया को करने में कोई न कोई अपनी भूमिका निभाता है उसे कारक कहते है। अथार्त संज्ञा और सर्वनाम का क्रिया के साथ दूसरे शब्दों में संबंध बताने वाले निशानों को कारक कहते है विभक्तियों या परसर्ग जिन प्रत्ययों की वजह से कारक की स्थिति का बोध कराते हैं उसे विभक्ति या परसर्ग कहते हैं।

कारक के उदाहरण :-

(i) राम ने रावण को बाण मारा।
(ii) रोहन ने पत्र लिखा।
(iii) मोहन ने कुते को डंडा मारा।

कारक के भेद – कारक के आठ भेद हैं



कारक के भेद

- **कर्ता (ने) –**

  अंशु ने बर्गर खाया।
  कोहली ने शानदार दोहरा शतक लगाया।

- **कर्म (को) –**

  तुषार ने आयुष को पुस्तक दी।
  श्रीकृष्ण ने कंस को मारा।

- **करण (से/के द्वारा) –**

माँ चाकू से फल काटती है।

- **संप्रदान (को, के लिए) –**

  मैं आपके लिए चाय बना रही हूँ।

- **अपादान (से) –**

  पेड़ से पत्ते गिर रहे हैं।

- **अधिकरण (में, पर) –**

  मछली पानी में रहती है।

- **संबंध (का, की, के, रा, री, रे) –**

  यह आयुष का घर है।
  नेहा के पिता लेखक है।

- **संबोधन (हे, अरे, ओ)-**

  हे! राम ये क्या हुआ? अरे! तुम कब आए?

1. कर्ता कारक :

- जो वाक्य में कार्य को करता है, वह कर्ता कहलाता है। कर्ता वाक्य का वह रूप होता अहि जिसमे कार्य को करने वाले का पता चलता है।
- **कर्ता कारक का विभक्ति चिन्ह 'ने' होता है।**

<u>उदाहरण :</u>

- रामू ने अपने बच्चों को पीटा।
- समीर जयपुर जा रहा है।
- नरेश खाना खाता है।
- विकास ने एक सुन्दर पत्र लिखा।

(कर्ता कारक के बारे में गहराई से पढनें के लिए यहाँ क्लिक करें – <u>कर्ता कारक – उदाहरण, परिभाषा, चिन्ह</u>)

2. कर्म कारक :

- वह वस्तु या व्यक्ति जिस पर वाक्य में की गयी क्रिया का प्रभाव पड़ता है वह कर्म कहलाता है।
- **कर्म कारक का विभक्ति चिन्ह 'को' होता है।**

उदाहरण :

- गोपाल ने राधा को बुलाया।
- रामू ने घोड़े को पानी पिलाया।
- माँ ने बच्चे को खाना खिलाया।
- मेरे दोस्त ने कुत्तों को भगाया।

(कर्म कारक के बारे में गहराई से पढनें के लिए यहाँ क्लिक करें – कर्म कारक – उदाहरण, परिभाषा, चिन्ह)

3. करण कारक :

- वह साधन जिससे क्रिया होती है, वह करण कहलाता है। यानि, जिसकी सहायता से किसी काम को अंजाम दिया जाता वह करण कारक कहलाता है।
- **करण कारक के दो विभक्ति चिन्ह होते है : से और के द्वारा।**

उदाहरण :

- बच्चे गाड़ियों से खेल रहे हैं।
- पत्र को कलम से लिखा गया है।
- राम ने रावण को बाण से मारा।
- अमित सारी जानकारी पुस्तकों से लेता है।

(करण कारक के बारे में गहराई से पढनें के लिए यहाँ क्लिक करें – करण कारक – उदाहरण, परिभाषा, चिन्ह)

4. सम्प्रदान कारक :

- सम्प्रदान का अर्थ 'देना' होता है। जब वाक्य में किसी को कुछ दिया जाए या किसी के लिए कुछ किया जाए तो वहां पर सम्प्रदान कारक होता है।
- **सम्प्रदान कारक के विभक्ति चिन्ह के लिए या को हैं।**

उदाहरण :

- माँ अपने बच्चे के लिए दूध लेकर आई।

- विकास ने तुषार को गाडी दी।
- मैं हिमालय को जा रहा हूँ।
- रमेश मेरे लिए कोई उपहार लाया है।

(सम्प्रदान कारक के बारे में गहराई से पढनें के लिए यहाँ क्लिक करें – सम्प्रदान कारक – उदाहरण, परिभाषा, चिन्ह)

5. अपादान कारक :

- जब संज्ञा या सर्वनाम के किसी रूप से किन्हीं दो वस्तुओं के अलग होने का बोध होता है, तब वहां अपादान कारक होता है।
- अपादान कारक का भी विभक्ति चिन्ह से होता है। से चिन्ह करण कारक का भी होता है लेकिन वहां इसका मतलब साधन से होता है।
- यहाँ से का मतलब किसी चीज़ से अलग होना दिखाने के लिए प्रयुक्त होता है।

उदाहरण :

- सुरेश छत से गिर गया।
- सांप बिल से बाहर निकला।
- पृथ्वी सूर्य से बहुत दूर है।
- आसमान से बिजली गिरती है।

(अपादान कारक के बारे में गहराई से पढनें के लिए यहाँ क्लिक करें – अपादान कारक – उदाहरण, परिभाषा, चिन्ह)

6. संबंध कारक :

- जैसा की हमें कारक के नाम से ही पता चल रहा है कि यह किन्हीं वस्तुओं में संबंध बताता है। संज्ञा या सर्वनाम का वह रूप जो हमें किन्हीं दो वस्तुओं के बीच संबंध का बोध कराता है, वह संबंध कारक कहलाता है।
- सम्बन्ध कारक के विभक्ति चिन्ह **का, के, की, ना, ने, नो, रा, रे, री** आदि हैं।

उदाहरण :

- वह राम का बेटा है।
- यह सुरेश की बहन है।
- बच्चे का सिर दुःख रहा है।
- यह सुनील की किताब है।

- यह नरेश का भाई है।

(संबंध कारक के बारे में गहराई से पढनें के लिए यहाँ क्लिक करें – संबंध कारक – उदाहरण, परिभाषा, चिन्ह)

7. अधिकरण कारक :

- अधिकरण का अर्थ होता है – आश्रय। संज्ञा का वह रूप जिससे क्रिया के आधार का बोध हो उसे अधिकरण कारक कहते हैं।
- **इसकी विभक्ति में और पर होती है। भीतर, अंदर, ऊपर, बीच आदि शब्दों का प्रयोग इस कारक में किया जाता है।**

उदाहरण :

- वह रोज़ सुबह गंगा किनारे जाता है।
- वह पहाड़ों के बीच में है।
- मनु कमरे के अंदर है।
- महाभारत का युद्ध कुरुक्षेत्र में हुआ था।
- फ्रिज में आम रखा हुआ है।

(अधिकरण कारक के बारे में गहराई से पढनें के लिए यहाँ क्लिक करें – अधिकरण कारक – उदाहरण, परिभाषा, चिन्ह)

8. संबोधन कारक :

- संज्ञा या सर्वनाम का वह रूप जिससे किसी को बुलाने, पुकारने या बोलने का बोध होता है, तो वह सम्बोधन कारक कहलाता है।
- सम्बोधन कारक की पहचान करने के लिए ! यह चिन्ह लगाया जाता है।
- सम्बोधन कारक के **अरे, हे,** आदि विभक्ति चिन्ह होते हैं।

उदाहरण :

- हे राम! बहुत बुरा हुआ।
- अरे भाई ! तुम तो बहुत दिनों में आये।
- अरे बच्चों! शोर मत करो।
- हे ईश्वर! इन सभी नादानों की रक्षा करना।
- अरे! यह इतना बड़ा हो गया।

बहुविकल्पी प्रश्न

1. कारक की विभक्तियों का अन्य नाम है

(i) काल

(ii) चिह्न

(iii) परसर्ग

(iv) क्रिया

2. 'का' 'की' 'के' विभक्ति-चिह्न हैं

(i) संबंध कारक के

(ii) कर्म कारक के

(iii) कर्ता कारक के

(iv) संप्रदान कारक के

3. कारक के भेद होते हैं

(i) पाँच

(ii) सात

(iii) आठ

(iv) नौ

4. रेखांकित में कारक के नाम बताइए–'पेड़ से पत्ते गिरते हैं।'

(i) करण कारक

(ii) अपादान कारक

(iii) संबंध कारक

(iv) संप्रदान कारक

5. भिखारी को भीख दे दो

(i) कर्मकारक

(ii) करण कारक

(iii) अपादान कारक

(iv) संप्रदान कारक

6. बच्चा कुत्ते से डरता है

(i) करण कारक

(ii) कर्म कारक

(iii) अपादान कारक

(iv) कर्ता कारक

7. तुम्हारे घर सोना बरसेगा

(i) कर्ता कारक

(ii) अधिकरण कारक

(iii) अपादन कारक

(iv) कारण कारक

8. नेहा' मेरे लिए कॉफ़ी बनाने लगी। वाक्य में रेखांकित शब्द है

(i) कर्ता कारक

(ii) करण कारक

(iii) संप्रदान कारक

(iv) अपादान कारक

9. 'चाय मेज़ पर रख देना' रेखांकित शब्द कारक है

(i) कर्ता कारक।

(ii) अपादान कारक

(iii) संबोधन कारक

(iv) अधिकरण कारक

10. मोहन की पुस्तक मेरे पास है। रेखांकित शब्द कारक है।

(i) संबंध कारक

(ii) अधिकरण कारक

(iii) अपादान कारक

(iv) कर्म कारक |

हिंदी गतिविधि

इस कहानी को पढ़कर कारक के विभक्ति चिन्हों को रेखांकित कीजिए।

समुद्र तट पर बसे एक गाँव में एक चरवाहा रहता था। वह दूध बेचकर आसानी से अपने जीवन का निर्वाह करता था। एक दिन उसके मन में विचार आया कि क्यों न वह समुद्र पार कर व्यापार करे।

यह सोच उसने अपनी सभी भेड़ें बेच दी तथा काफी मात्रा में खजूर खरीद लिये। उसने अपनी यात्रा आरम्भ की। बीच रास्ते में वह उस धन को गिनने लगा जो उसने खजूर की बोरियों को बेचकर कमाया था।

तभी अचानक तेज हवाएँ चलने लगीं और उन हवाओं ने एक भयंकर तूफान का रूप ले लिया। लहरें तेज होने के कारण उसकी नाव डगमगाने लगी और डूबने की स्थिति में आ गई।

उसने खजूर के अपने सारे बोरे समुद्र में फेंक दिए ताकि खाली नाव के सहारे वह आसानी से किनारे तक पहुँच सके। वह बहुत दुखी था।

कुछ समय बाद तूफान शांत हो गया। चरवाहा बड़े ध्यान से समुद्र की ओर देखते हुए दुःखी स्वर में बोला, "शायद सागर काफी मात्रा में खजूर चाहता था, तभी तो अब वह शांत है।

कारक के विभक्ति चिन्हों को दर्शाते हुए एक अच्छा सा A 4 साइज सीट पर आकर्षित चार्ट बनाएं ।

MATHEMATICS MS. SHIVANGI PANDIT

Chapter 2 – Linear Equation in One Variable

Please watch this video:
https://www.youtube.com/watch?v=pS44ARKnuV4

Learning Outcomes:

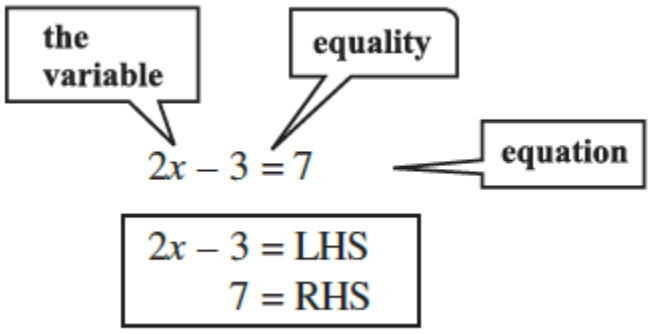
i. To help the students understand the concept of linear equation in one variable.
ii. Students will be able to Solve equations which have linear expressions on one side and numbers on the other side.

Definition:

A linear equation in one variable is an equation which has a maximum of one variable of degree1. It is of the form ax + b = 0, where x is the variable.
This equation has only one solution. Few examples are:

- 3x = 1
- 22x-1=0
- 4x+9=-11

➢ An algebraic equation is an equality involving variables. It has an equality sign. The expression on the left of the equality sign is the Left Hand Side (LHS). The expression on the right of the equality sign is the Right Hand Side (RHS).



➢ In an equation the values of the expressions on the LHS and RHS are equal. This happens to be true only for certain values of the variable. These values are the solutions of the equation.

Example: Solve the following equation: 7x – 9 = 16

Solution: 7x – 9 = 16
7x = 16 + 9
7x = 25
x = 25/7

Example: Solve : $\frac{3}{7} + x = \frac{17}{7}$

Solution: $x = \frac{17}{7} - \frac{3}{7}$

$x = \frac{17-3}{7}$

$x = \frac{14}{7}$

$x = 2$

Some Applications:

Q-1) The present age of Sahil's mother is three times the present age of Sahil. After 5 years their ages will add to 66 years. Find their present ages.

Solution: Let Sahil's present age be x years.

	Sahil	Mother	Sum
Present age	x	$3x$	
Age 5 years later	$x + 5$	$3x + 5$	$4x + 10$

It is given that this sum is 66 years.

Therefore, 4x + 10 = 66

4x = 66 – 10

4x = 56

x = 56/4

x = 14

Mother's age = 3 x 14 = 42 years.

Thus, Sahil's present age is 14 years and his mother's age is 42 years.

Q-2) Bansi has 3 times as many two-rupee coins as he has five-rupee coins. If he has in all a sum of ₹77, how many coins of each denomination does he have?

Solution: Let the number of five-rupee coins that Bansi has be x. Then the number of two-rupee coins he has is 3 times x or 3x.

The amount Bansi has:

(i) from 5 rupee coins, ₹5 × x = ₹5x

(ii) from 2 rupee coins, ₹2 × 3x = ₹6x

Hence the total money he has = ₹11x

But this is given to be ₹77; therefore,

11x = 77

X = 77/11

X = 7

Thus, number of five-rupee coins = x = 7

and number of two-rupee coins = 3x = 21

Solve the following Questions:

Q-1) Which of the following is not a linear equation in one variable?

a. 3x +4=2
b. 4y = 4
c. 4x +5y = 6
d. 7m -2=6

Q-2) The solution of 2x-3=7 is:

a. 5
b. 7
c. 12
d. 11

Q-3) If 6 is added to 3 times of a number, it becomes 15. This statement in the form an equation is:

a. 3x - 6= 15
b. 6x + 3 = 15
c. 3x + 6= 15
d. 6x -3 = 15

Q-4) The solution of the equation $\frac{5x}{3} = 30$ is

a. 9
b. 12
c. 15
d. 18

Q-5) The highest power of the variable appearing in a linear equation is _____

a. 1
b. 2
c. 3
d. 4

Q-6) A linear equation in one variable has

a. Only one solution
b. Two solutions
c. More than two solutions
d. No solution

Q-7) Arpita's present age is three times of Shilpa's present age. If Shilpa's age three years ago was x. Then Arpita's present age is :

a. 3(x-3)
b. 3(x +3)
c. 3x
d. 3(x +6)

Q-8) I have a total of ₹ 300 in coins of denomination ₹1, ₹ 2 and ₹ 5. The number of ₹2 coins is 3 times the number of ₹5 coins. The total number of coins is 160. How many coins of each denomination are with me?

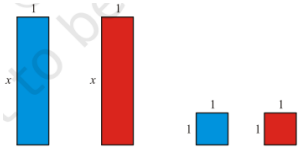
Q-9) The difference between two whole numbers is 66. The ratio of the two numbers is 2 : 5. What are the two numbers?

Activity:

Objective: To solve the equation 2x + 3 =5

Procedure:

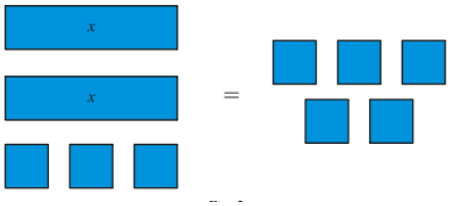
1. Cut some blue and red rectangular pieces (size $x \times 1$)and some blue and red square pieces (size 1 x 1) from a chart paper.



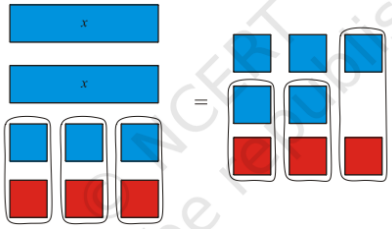
2. Consider each blue rectangular piece as +1 and each rectangular piece as -1. Similarly, each blue square as +1 and each red square as -1 respectively.

Demonstration:

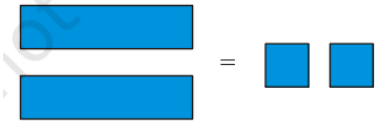
1. For the equation arrange two blue rectangles and 8 blue square pieces on a sheet as follows:



2. Add 3 red small square pieces on both sides



3. Pair each red square with a blue square.
4. Remove these pairs.



5. Taking half the number of pieces on both side we get

Thus the solution of the equation 2x + 3 = 5 is x=1

The activity can be repeated by taking some more linear equation

SUBJECT SCIENCE MS. PARUL TYAGI

OBJECTIVE/LEARNING OUTCOME-Studentsc will know the structure of cell and its nucleus.

Link-https://youtu.be/I_ClbcUtbZ4

1. Which organelle is called the “powerhouse of the cell”?

A. Nucleus

B. Endoplasmic reticulum

C. Mitochondrion

D. Golgi apparatus

Answer: (C) Mitochondrion

Solution: The mitochondrion is called the “powerhouse of the cell” because it is responsible for producing energy-rich ATP molecules. Cells use ATP for all their energy needs.

2. Which of the following instruments can be used to observe cells?

A. Barometer

B. Microscope

C. Periscope

D. Telescope

Answer: (B) Microscope

Solution: A microscope is an optical instrument used to observe objects that are invisible to the naked eye. It is used to view and study cell structure. The science of viewing small objects using a microscope is called microscopy.

3. Which of the following scientists discovered cells in cork slices?

A. Louis Pasteur

B. Antonie van Leeuwenhoek

C. Carl Linnaeus

D. Robert Hooke

Answer: (D) Robert Hooke

Solution: Robert Hooke in 1665 observed thin slices of cork under a simple magnifying device. He observed box-like structures and named them ‘cells’. This is because these structures reminded him of the cells in a monastery.

4. Which among the following organelles synthesizes lipids?

A. Smooth Endoplasmic Reticulum

B. Rough Endoplasmic Reticulum

C. Golgi apparatus

D. Lysosome

Answer: (A) Smooth Endoplasmic Reticulum

Solution: Lipids are synthesised by the Smooth Endoplasmic Reticulum (SER), while the Rough Endoplasmic Reticulum (RER) synthesises proteins with the help of ribosomes attached to them.

5. Which of the following statements is incorrect about Endoplasmic Reticulum?

A. It is involved in lipid synthesis.

B. It is involved in ribosome synthesis.

C. It is the post office of the cell.

D. Involved in detoxifying chemicals.

Answer: (C) It is the post office of the cell

Solution:

· Golgi apparatus is called the post office of the cell since it is involved in the packaging, processing and transportation of substances.

· SER (Smooth endoplasmic reticulum) is involved in detoxification and lipid synthesis, while RER is involved in protein synthesis. Ribosomes are not synthesised by the ER.

6. Which among the following is not the function of lysosomes?

A. Breaking down of food particles.

B. Protection against the pathogens.

C. Perform photosynthesis.

D. Digest worn-out cells.

Answer: (C) Perform photosynthesis

Solution: Lysosomes break down and digest food particles in a cell. They also help the cell to protect itself from pathogens, by forming a complex along with the pathogen, called phagosome. They also aid in recycling proteins and digest worn-out cells. Hence, they are known as the 'suicidal bags'. But they do not aid in photosynthesis.

7. Assertion (A): Chromosomes are responsible for the transfer of characteristics from parents to offspring.

Reason (R): Chromosomes are present in the nucleus.

A. Both A and R are true and R is the correct explanation of A

B. A is true but R is false

C. A is false but R is true

D. Both A and R are true but R is not the correct explanation of A

Answer: (D) Both A and R are true but R is not the correct explanation of A

Solution: In the nucleus, thread-like structures called chromosomes are present. These carry all the information needed by the cell to function and to reproduce. They are responsible for inheritance i.e., transfer of characteristics from parents to the offspring. Hence, both the statements are correct. Chromosomes being present in the nucleus has nothing to do with their function.

8. Among the following which cell can be seen with an unaided eye?

A. Hen's egg

B. Red blood cell

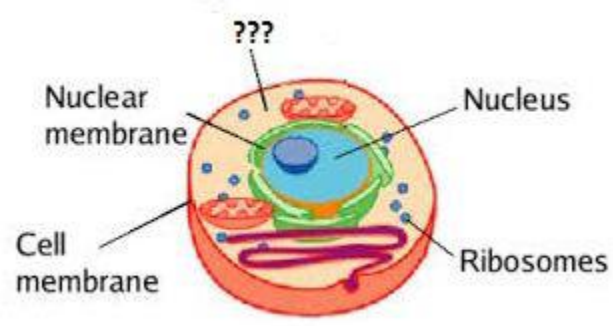
C. Sperm cell

D. Nerve cell

Answer: (A) Hen's egg

Solution: Most of the cells are microscopic in size and are not visible to the unaided eye. They need to be enlarged or magnified by a microscope. Some cells are big enough to be seen with the unaided eye. Example of that is a hen's egg which is considered as a single cell. It can be seen by the naked eye.

9. The fluid present between the cell membrane and the nucleus is called



A. Cytoplasm

B. Nucleoplasm

C. Protoplasm

D. Serum

Answer: (A) Cytoplasm

Solution: The jelly-like fluid present between the cell membrane and the nuclear membrane is called the cytoplasm. It houses all the cellular organelles and is the site for most of the metabolic activities taking place in the cell.

10. Choose the correct statement(s):

(i) Ribosomes are located on the chromosomes.

(ii) Cell is located in the nucleus.

(iii) Chloroplasts are located in the nucleolus.

(iv) Cell membrane surrounds the cell.

A. (i), (ii) and (iii)

B. (i) and (ii)

C. (iii) and (iv)

D. Only (iv)

Answer: (D) Only (iv)

Solution:

- Ribosomes are protein synthesising units which are present attached to the RER or are freely floating in the cytoplasm.
- Nucleus is present in the cell.
- Chloroplasts are present in the cytoplasm of plant cells.
- Nuclear membrane surrounds the nucleus and cell membrane surrounds the cell

11. I am a double-membraned cell organelle. I produce energy-rich molecules called ATP. I have my own genetic material. Who am I?

A. Cell membrane

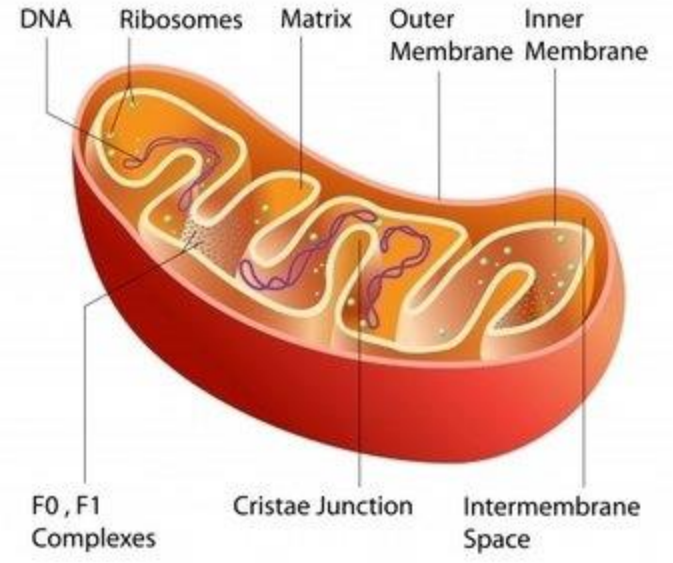
B. Plastid

C. Nucleus

D. Mitochondrion

Answer: (D) Mitochondrion

Solution:



Mitochondria are double-membraned cell organelle present in the cytoplasm. They have their own genetic material. They produce ATP, which are energy-rich molecules. Since they produce energy rich molecules, they are called the ‘powerhouse’ of the cell.

12. Which of the following is the non-living part of the cell?

A. Cell membrane

B. Cytoplasm

C. Mitochondrion

D. Cell wall

Answer: (D) Cell wall

Solution: Cell wall is the non-living part of the cell. It allows all the substances to pass through it. They only have structural function and determine the shape of cells. On the contrary, cell membrane which is living, is active and has molecules present in it that are always dynamic.

13. What are pseudopodia?

A. Vacuole of amoeba

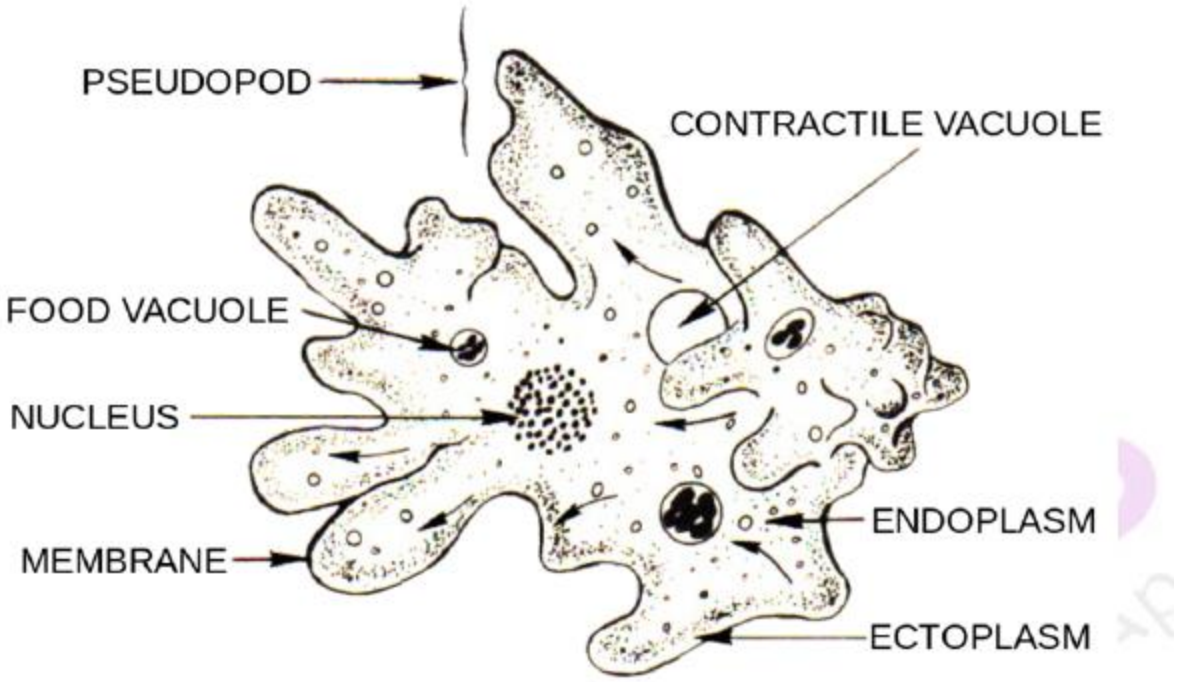
B. False feet of amoeba

C. Heart of amoeba

D. Eye of amoeba

Answer: (B) False feet of amoeba

Solution:



Amoeba have pseudopodia, which are projections of varying lengths protruding out of its body. Amoeba does not have a regular shape and uses pseudopodia for locomotion and digestion.

14. Based on the following options, how does a plant cell differ from an animal cell?

A. Cell wall

B. Both A and B

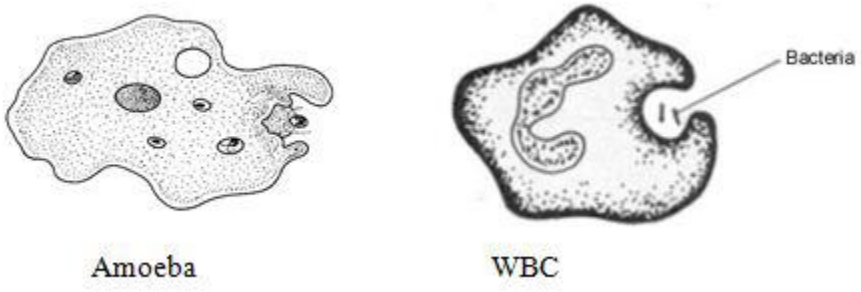
C. Mitochondrion

D. Chloroplast

Answer: (B) Both A and B

Solution: An outer thick layer of plant cell is called the cell wall. This additional layer surrounding the cell membrane is required by the plants for protection and for the shape of the cell. All the green plants contain the pigment chlorophyll. It traps sunlight required for photosynthesis. Chlorophyll are present inside the chloroplasts. Mitochondria (sing. mitochondrion) is present in both animal and plant cells. It produces energy in the form of ATP.

15. Based on the given statements, choose the correct option.



Statement 1: Amoeba and WBCs use pseudopodia for locomotion.

Statement 2: Amoeba and WBCs are both capable of independent existence.

Statement 3: Amoeba and WBCs can change their shapes.

Statement 4: Amoeba and WBCs have cell membrane.

A. Statement 3 is incorrect.

B. Statement 1 and 2 are incorrect.

C. Statement 1, 2, 3 and 4 are incorrect.

D. Statement 4 is incorrect

Answer: (B) Statement 1 and 2 are incorrect.

Solution: Amoeba and WBCs have cell membranes and can change their shapes. WBCs use pseudopodia to engulf pathogens during phagocytosis, while amoeba uses pseudopodia for locomotion and engulfing food. Amoeba is a unicellular organism and can exist independently. WBCs, on the other hand, are incapable of independent existence.

16. If your father has brown eyes, you may also have brown eyes. If your mother has curly hair, you might also end up having curly hair. This transfer of characteristics is due to the transfer of _____.

A. Mitochondria

B. Lysosomes

C. Chloroplasts

D. chromosomes

Answer: (D) chromosomes

Solution: Nucleus contains thread-like structures called chromatins. **Chromosomes** are condensed forms of chromatin. During cell division, these chromosomes carry genes and help in the transfer of characters from parents to offspring.

17. In an animal cell, which among the following organelles has its own DNA?

A. Chloroplast

B. Chromoplast

C. Leucoplast

D. Mitochondria

Answer: (D) Mitochondria

Solution: Mitochondria and plastids are semi autonomous cell organelles since they possess their own DNA and ribosomes. Chloroplasts, chromoplasts and leucoplasts are types of plastids and are absent in animal cells.

18. Which organelle is called the “suicide bag” of the cell?

A. Golgi apparatus

B. Plastids

C. Lysosomes

D. Mitochondria

Answer: (C) Lysosomes

Solution: Lysosomes are called “suicide bags” of the cell because they have hydrolytic enzymes stored in them. These enzymes are used to digest complex molecules in a cell. When released into the cytoplasm, these enzymes can “digest” or destroy the cell itself. Therefore, they are called “suicide bags”.

19. The technique in which cellular components are coloured for better observation is called:\

A. Dyeing

B. Pigmenting

C. Staining

D. Colouring

Answer: (C) Staining

Solution: Cell staining is the technique of colouring different cellular organelles. It is used to visualise cells and cellular components better under a microscope. By using different stains, one can preferentially stain specific cell components, such as a nucleus, cell wall, or the entire cell.

20. Which of the following is not a postulate of cell theory?

A. Cell is the basic unit of life.

B. All cells develop from pre-existing cells.

C. All living cells have cell walls.

D. All living organisms are composed of cells.

Answer: (C) All living cells have cell walls.

Solution: The main postulates of cell theory are:

• All living organisms are composed of one or more cells.

• Cell is the basic unit of structure, function, and organisation in all organisms.

• All cells come from pre-existing, living cells.

All living cells do not have cell walls. It is present only in plants, fungi and bacteria.

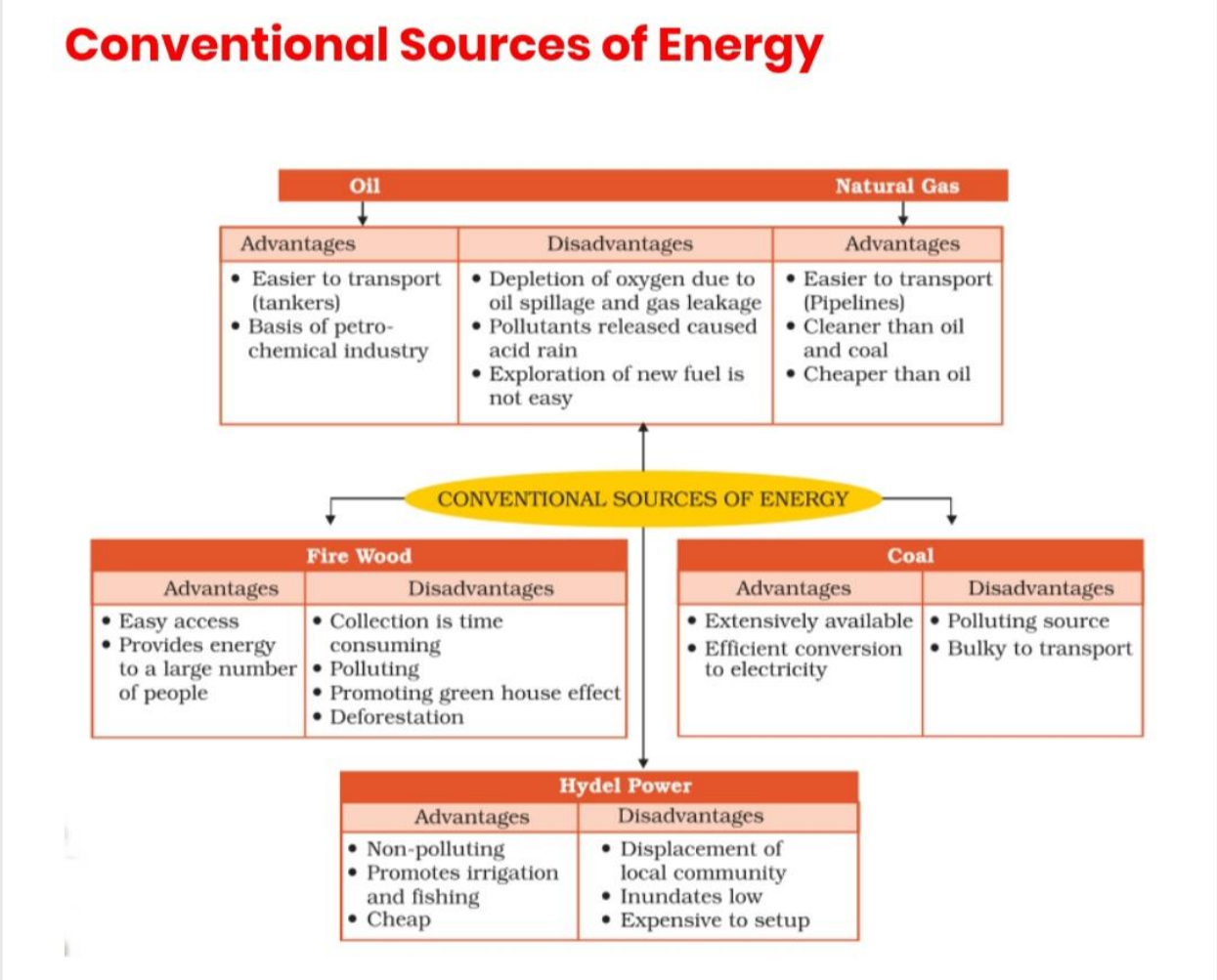
ACTIVITY- Draw the well labelled diagram of cell.

subject: social science (Geography)

Chapter 3: Mineral & power resources MS. NIDA

Study material

Learning objectives:- Students will be able to know the advantages & disadvantages of various sources of conventional energy & the working of hydroelectric powerplant.



Firewood

- Widely used for **cooking and heating** – 50% of the energy used by villagers comes from firewood.
- Remains of plants and animals which were buried under the earth for millions of years got converted by the heat and pressure into **fossil fuels.**
- Fossil fuel such as coal, petroleum and natural gas are the main sources of conventional energy.
- The rate at which the growing world population is consuming them is far greater than the rate of their formation. So, these are likely to be exhausted soon.

Coal

- Abundantly found fossil fuel- used as a domestic fuel, in industries such as iron and steel, steam engines- to generate electricity.
- **Electricity from coal is called thermal power**.
- The coal was formed millions of years ago when giant ferns and swamps got buried under the layers of earth**. Coal** is therefore **referred to as Buried Sunshine.**

- **The leading coal producers of the world are** China, USA, Germany, Russia, South Africa and France.
- **The coal producing areas of India** are Raniganj, Jharia, Dhanbad and Bokaro in Jharkhand.

Petroleum

- Petroleum found between the layers of rocks- drilled from oil fields located in off-shore and coastal areas-sent to refineries which process the crude oil and produce a variety of products like diesel, petrol, kerosene, wax, plastics and lubricants.
- Petroleum and its derivatives are called Black Gold, which are very valuable.

Chief petroleum producing countries- Iran, Iraq, Saudi Arabia and Qatar, other major producers are USA, Russia, Venezuela, and Algeria.

Leading producers in India- Digboi in Assam, Bombay High in Mumbai and the deltas of Krishna and Godavari rivers.

Natural Gas

- Found with petroleum deposits-released when crude oil is brought to the surface-used as a domestic and industrial fuel

  .Major producers of natural gas-Russia, Norway, UK and the Netherlands – In India Jaisalmer, Krishna Godavari delta, Tripura and some areas offshore in Mumbai have natural gas resources.

Sharp increase in our consumption of fossil fuels has led to

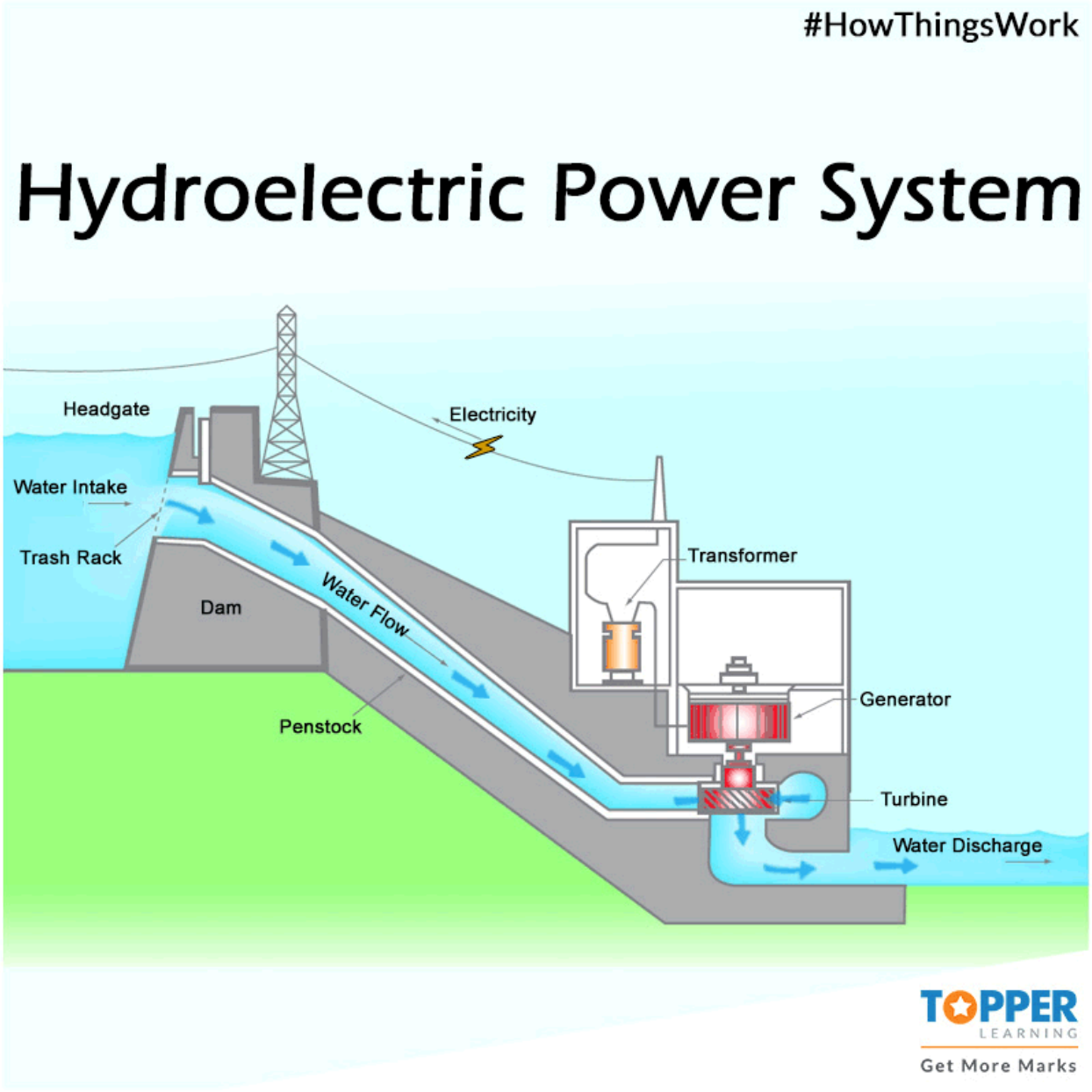
- Depletion of fossil fuels at an alarming rate
- toxic pollutants are released from burning these fuels

Hydel Power

- Rain water or river water stored in dams. The falling water flows through pipes inside the dam over turbine blades placed at the bottom of the dam. The moving blades then turn the generator to produce electricity. This is called hydro electricity.
- Water discharged after the generation of electricity is used for irrigation.
- 1/4th of the world's electricity is produced by hydel power.

Leading producers of hydel power in the world-Paraguay, Norway, Brazil, and China.

Important hydel power stations in India-Bhakra Nangal, Gandhi Sagar, Nagarjunsagar and Damodar valley projects.



ASSIGNMENT

SHORT ANSWER TYPE QUESTIONS;

1. Which are the coal producing areas of India.
2. Describe fossil fuels.
3. What are the advantages and disadvantages of firewood?
4. Where is Natural Gas found?
5. How fossil fuel is made?
6. Why coal is known as 'buried sunshine"?

Long Answer Type Questions

1.How is petroleum found and what is petroleum and its derivatives known as and why?

2. Describe natural gas as a source of conventional energy.

ACTIVITY: Explain the working of hydroelectric power plant. Make your short video while giving explanation.

Video Link:-

https://www.youtube.com/watch?v=hTqgn3J1rNI&feature=youtu.be

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

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

Subject-History MS. POONAM PATHAK

Topic:- Chapter 4 – Tribal, Dikus and the vision of the golden age

Sub Topic 1:- **How did Colonial Rule Affect Tribal Lives**

What Happened to Tribal Chiefs
What Happened to the Shifting Cultivators
Forests Laws and Their Impact

Learning Objectives:- To make children aware of the changes that occurred after coming of the British Rule.

Methodology:-PPT, Video and word file

You tube link:-https://youtu.be/1nzfpB2b_5Y

Activity 1:- Find out any two tribal groups of India who practiced hunting and gathering and who practiced Shifting Cultivation. Write a short notes along with their pictures.

How did Colonial Rule Affect Tribal Lives: The lives of tribal groups changed during British rule. Their faiths were tried to be changed via Christian missionaries and laws related to forest were had direct impact on their traditional rights.

What Happened to Tribal Chiefs:

1. Before the arrival of the British, tribal chiefs enjoyed economic power, and had the right to administer and control their territories.
2. Under British rule, the functions and powers of the tribal chiefs changed as they were allowed to keep their land titles but lost there administrative rights and were forced to follow laws made by British officials in India.
3. Rules made by British took over the entitlement and power to administer the forest area.

What Happened to the Shifting Cultivators:

1. The British were uncomfortable with the shifting cultivators as it was more easy to control a settled group.
2. The British wanted to regular revenue source for the state and introduced land settlements.
3. The British effort to settle jhum cultivators was not vey successful in North-Eastern part of India as the land was not fertile enough.
4. After facing widespread protests, the British had to allow them the right to carry on shifting cultivation in some parts of the forest.
5. In most of the central parts shifting cultivation was prohibited and lands were assigned to do the cultivation.

Forests Laws and Their Impact:

1. The life of tribal groups was directly connected to the forest.
2. The British extended their control over all forests and declared them as state property.
3. Reserved forests were for producing timber which the British wanted but for the purpose of cheap labour the forest village were settled within the forest.
4. In reserved forests people were not allowed to move freely or practice jhum cultivation.
5. This law impacted the very survival of triblas as they were mainly depend on forest and its products. Many tribal groups reacted against the colonial forest laws and rose in an open rebellion.

Assignment:-

1. Describe the “Reserve Forest law “.
2. How did the British colonial rule effect the life of tribal's chief?
3. Illustrate the effects of the’Reserve Forest law’.

SANSKRIT MR. SANJAY CHAUHAN

https://youtu.be/UvnzmGjIYw0 (चित्र वर्णन)