



**Affiliation No. 1130703**

**Class Notes**

**NAME:** \_\_\_\_\_

**DATE :** \_\_\_\_\_

**CLASS: VIII DIVISION:** \_\_\_\_\_

**SUBJECT: Science**

**PREPARED BY: Prathibha Hebbar**

**LESSON: 2 – MICROORGANISMS; FRIEND & FOE**

**I. KEY WORDS:**

Algae  
Antibiotics  
Antibodies  
Bacteria  
Carrier  
Communicable diseases  
Fermentation  
Fungi  
Lactobacillus  
Microorganism  
Pathogen  
Preservation  
Nitrogen cycle  
Pasteurization  
Rhizobium  
Protozoa  
Vaccine

**Very Short answer questions:**

**Q1. Name any 2 antibiotics.**

Ans: streptomycin, Tetracycline, Erythromycin.

**Q2. How does female anopheles mosquito spread malaria?**

Ans: The female Anopheles mosquito sucks the blood of human beings and transmits plasmodium into their blood. The plasmodium causes malaria.

**Q3. Can microorganisms be seen with the naked eye? If not, how can they be seen?**

Ans: No, we cannot see them with unaided eyes. They can be seen with the help of microscope.

**Q4. What are the major groups of microorganisms?**

Ans: The major group of microorganisms are : Bacteria, fungi, protozoa, viruses and algae.

**Q5. Name the microorganisms which can fix the atmospheric nitrogen in the soil.**

Ans: Rhizobium, Azotobacter, Blue green algae, are the microorganisms which can fix atmospheric nitrogen in the soil.

## SHORT ANSWER QUESTIONS :

**Q1. Write 10 lines on the usefulness of microorganisms in our lives.**

Ans: **Uses of bacteria:**

- a. Lactobacillus is useful in making curd.
- b. Microorganisms are useful in formation of bread and cheese.
- c. They are used in cleaning of environment.
- d. They are used in the production of alcohol.
- e. They are used in the production of antibiotics.
- f. They are used in the making of vaccine.
- g. They are used to make manure.
- h. Bacteria are the main nitrogen fixing agent.
- i. They fix the carbon dioxide into useful sugar.

**Q2. Write a short paragraph on the harms caused by microorganisms.**

Ans: Microorganisms spoil food, clothing and leather. Pathogen enter our body through the air we breathe the water we drink or the food we eat. They can also get transmitted by direct contact with an infected person to a healthy person. For example common cold, flu, chicken pox etc. Several microorganisms cause disease in animals and plants also. For example, anthrax is a dangerous human and cattle disease caused by a bacterium.

**Q3. What is an antibiotic? What precautions must be taken while taking antibiotics?**

Ans: The medicine produced by the living organisms such as bacteria and fungi which kills or stop the growth of disease causing organisms present in our body are called antibiotics.

**Precautions:**

1. Antibiotics should be taken only on the advice of the doctor.
2. We must complete the entire course of antibiotics.
3. Antibiotics taken unnecessarily may kill the beneficial bacteria in the body.
4. Antibiotics should not be taken when we are suffering from cold or flu because antibiotics are not effective against diseases **caused by viruses.**

## LONG ANSWER QUESTIONS:

**Q1. Explain 4 methods of food preservation. Also, discuss the advantages of food preservation.**

Ans: a) **Preservation by sugar:**

Jams, jellies and squashes are preserved by sugar. Sugar reduces the moisture content which inhibits the growth of bacteria which spoil food.

**b) Preservation by oil and vinegar:**

Use of oil and vinegar prevents spoilage of pickles because bacteria cannot live in such an environment. Vegetables, fruits fish and meat are often preserved by this method.

**c) Preservation by Chemical method:**

Salts and edible oils are the common chemicals generally used as preservatives. We can add salt or acid preservatives to pickles to prevent the attack of microbes. Sodium benzoate and sodium metabisulphite are common preservatives. These are also used in the jams and squashes to check their spoilage.

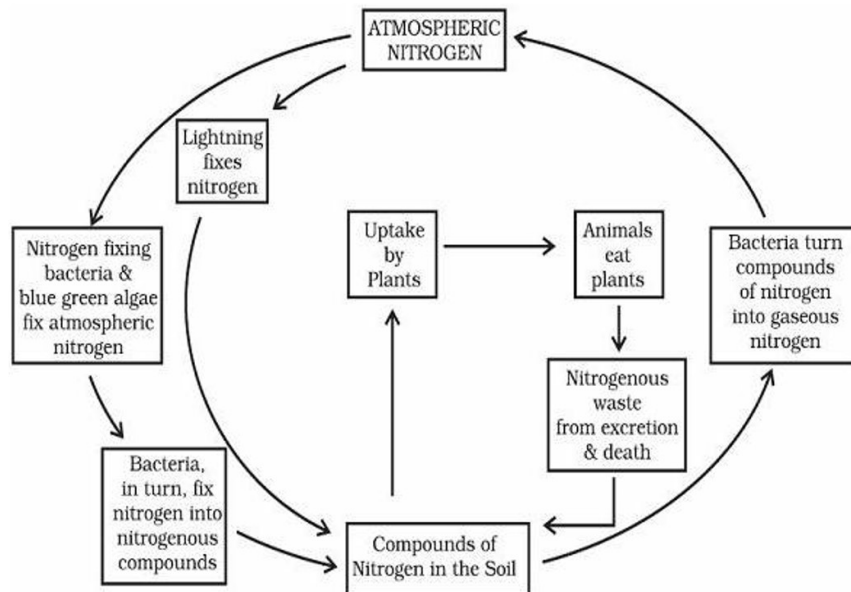
**d.) Preservation by common salts:**

Common salt has been used to preserve meat and fish for ages. Meat and fish are covered with dry salt to check the growth of bacteria. Salting is also used to preserve amla, raw mangoes, tamarind etc.

**Advantages of food preservation:**

- A. It decreases wastage of food by avoiding spoilage.
- B. It increases the storage period of food materials.
- C. Nutritional value of the food is retained for a longer period.
- D. It ensures food availability at distant places and during off seasons.

**Q2. Draw a neat diagram to show nitrogen cycle.**



**HOTS:**

**Q1. Why do we say that if a person suffers from chickenpox once, he/she is not likely to be attacked by the same disease in future?**

Ans: The person who suffered from chickenpox once, gets immunized naturally for that disease. The antibodies formed at the time of disease, immunize the person for any future attack by the same disease.

**Post activity: Draw the table of some common human diseases caused by microorganisms.**

Subject Tr

HOD

Co Ordinator

Principal