

HARI VIDYA BHAWAN

Subject: English

Class-IX

Work sheet-8

Grammar section B

DATE:- 17/04/2020,

Instructions to be followed:-

- 1. Students do your worksheet in any notebook such as rough notebook, previous year notebook, sheets etc. Whichever is available at your home. No need to go outside.***
- 2. All the students must complete their worksheets as periodic test 1 mark will be given to those who completes it else you will have to go through pen paper test after the school reopens.***
- 3. See video links in every work sheets as it will help you to understand the topic.***
- 4. If you have any query related to worksheet, ask your queries in whatsapp group between 10:00 am to 12:00 pm in the morning and 4:00 pm to 6:00 pm in the evening.***
- 5. All the students must download NCERT app in order to read the chapters and also to write answers of the exercise.***

Grammar (Gap Filling)

- 1. Study the given notes and complete the paragraph that follows by filling up the gaps with the most appropriate option from those given.**

Q 1. It was a rainy day. Traffic (a).....busy on the road. A (b).....hit a car badly in the market. Five commuters were badly injured while one person (c).....on the spot. The injured persons (d).....to the nearest hospital. The local people were of great help.

- a. (i) will be (ii) was (iii) is
 b. (i) speeding bus (ii) speeded bus (iii) speed up bus
 c. (i) was died (ii) had died (iii) died
 d. (i) Has taken (ii) were taken (iii) was taken

Q 2. Shoes.....of dust with a brush. A layer of polish

(b).....over the shoes. One should wait a little till the polish

(c).....then shoes(d)to shine.

- a. (I) is cleaned (ii) are cleaned (iii) will be cleaned
 b. (i) has coated (ii) will be coated (iii) is coated
 c. (I) soaks the leather (ii) will soak the leather
 (iii) had soaked the leather
 d. (i) were brushed (ii) is brushed (iii) are brushed

Link:- <https://youyu.be/psYnwtJvgt8>

Story writing:-

Rohini wanted to write a story a story but could write only a few lines. Using the input along with the introduction Rohini had made, develop the story. Title is “The King for Three Hours”....

Hints: Attacked by Sher Shah at night.....escaped.....horse fell into river.....struggling for life.....a water carrier jumped with water-bag.....put Humayun on water bag.....saved him.....Humayun asked what he could do for him..... “make me king for three hour,” said water carrier.....reached Delhi.....made him king for 3 hours.....leather coins made.....water carrier’s name on them.

Link:- <https://youtu.be/wyC6LoE0Ls>

Hari Vidya Bhawan
Class IX
Worksheet 8
Subject: Information Technology
L-3 Basic ICT Skills-1

Date : 17.04.20

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Exercise 4

- Q1. What do you mean by user interface?
- Q2. Why login and password is important for a computer?
- Q3. Explain about data security and data access in the context of operating system function.
- Q4. Define distributed OS.
- Q5. Differentiate between multiprocessing and multitasking OS.
- Q6. Name the OS which supports Indian language.
- Q7. Define mobile OS.

Exercise 5

- Q1. What do you mean by dragging of mouse?
- Q2. What type of changes you can do using date and time button in taskbar?

Exercise 6

- Q1. Define file.
- Q2. What is My computer /Computer?
- Q3. What is a folder?
- Q4. How will you create a folder? Write the steps.

Note : refer page no 66 to 70 to write the answer of questions of exercise 4, page no 75 and 81 for exercise 5, page no 83 to 87 for exercise 6.

To get knowledge about the topic click over the links:-

<http://youtu.be/VSB6N08DOZU>

<http://youtu.be/aY1OCDBFwoU>

<http://youtu.be/BKj2xpTd4EE>

HARI VIDYA BHAWAN

Worksheet-9

Class-X

Subject-Science

Session-2020-21

Ch-6: Life Processes

Date:17/04/2020

Instructions to be followed :-

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2:- All the student must complete their worksheets as Periodic test 1 marks will be given to those who completes it else you will have to go through pen paper test after the school reopens.

3:- See video links in every worksheet as it will help you to understand the topic.

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5:- All the students must download NCERT app in order to read the chapter and also to write answers of the exercise.

Life Processes - Life processes are processes undergoing in living organisms to sustain life. For example: Reproduction, Excretion, Respiration and Growth.

Nutrition -The Process of taking of food inside the body and converting it into smaller molecules which can be absorbed by the body is called Nutrition.

Need of nutrition: Nutrition is needed to provide energy for doing any activity and provide essential nutrients for life processes.

Nutrients: Materials which provide nutrition to organisms are called nutrients. For example,

- Carbohydrates and fats are the nutrients which are used by the organism mainly as a source of energy. These nutrients are found in wheat, rice, corn, chocolates etc. So when you eat them you feel energetic.
- Proteins, vitamins and mineral are nutrients used for making body parts like skin, blood, bones etc.

Mode of Nutrition

Mode of nutrition means method of obtaining food by an organism. There are mainly two modes of nutrition:

1. Autotrophic mode
2. Heterotrophic mode

1. Autotrophic Mode: Those organisms which can make their own food by photosynthesis are called Autotrophs. For example: all green plants, autotrophic bacteria.

2. Heterotrophic Mode: As the name suggest 'heteros' means 'others' and trophe' means 'nutrition'. Those organisms which cannot make their own food and depends on other organisms for their food are called Heterotrophs. For example: all the animals (man, dog, cat, lion, etc.), most bacteria and fungi.

Types of Heterotrophic Nutrition:

Heterotrophic mode of nutrition is of three types:

- (i). Saprotrophic (saprophytic) nutrition
- (ii). Parasitic nutrition
- (iii). Holozoic nutrition

(i) Saprotrophic nutrition: Saprotrophic nutrition is that nutrition in which an organism obtains its food from decaying organic matter of dead plants, dead animals and rotten bread etc. The organisms having saprotrophic mode of nutrition are called saprophytes.
. For example: Fungi (liker bread moulds, mushrooms) and many bacteria.

(ii) Parasitic nutrition: The parasitic nutrition is that nutrition in which an organism derives its food from the body of other living organisms without killing it.
For example, some animals like Plasmodium and roundworms, a few plants like Cuscuta and several fungi and bacteria.

(iii) Holozoic nutrition: The holozoic nutrition is that nutrition in which an organism takes the complex organic food materials into its body by the process of ingestion; the ingested food is digested and then absorbed into the body cells of the organism. For example: human beings and most of the animal.

Nutrition in Plants -

Green plants prepare their own food. They make food from carbon dioxide and water in the presence of sunlight and chlorophyll, this process is called **photosynthesis**.

The conditions necessary for photosynthesis to take place are:

1. Sunlight
2. Chlorophyll
3. Carbon dioxide
4. Water



Site of photosynthesis:

The site of photosynthesis in a cell of the leaf is chloroplasts which contain Chlorophyll.

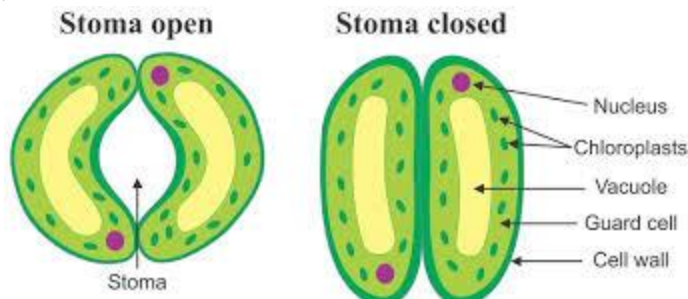
• Chloroplasts are mainly present in the photosynthetic cells (mesophyll cells) of green plants. These cells contain more chlorophyll than other plant cells.

Stomata: These are tiny pores present in the epidermis of leaf or stem through which gaseous exchange and transpiration occur.

Functions: 1) Exchange of gases, O_2 and CO_2
2) Loses a large amount of water (water vapour) during transpiration.

Opening and closing of stomata:

- The opening and closing of stomatal pores are controlled by the turgidity of guard cells.
- When guard cells uptake water from surrounding cells, they swell to become a turgid body, which enlarges the pores between (stomatal opening).
- While, when water is released, they become flaccid, shrinking to close the pore (closing of stomata).



Nutrition in Animals/ Heterotrophs -

Fruits, vegetable, milk, fish are some small substances which can be used by body to obtain nutrients.

Nutrition in Simple Animals:

Amoeba and paramecium are two very simple unicellular animals. In unicellular animals, all the processes of nutrition are performed by the single cell.

a. Nutrition in Amoeba:

- Amoeba is a unicellular animal.
- The mode of nutrition in Amoeba is holozoic.
- The process of obtaining food by Amoeba is called phagocytosis

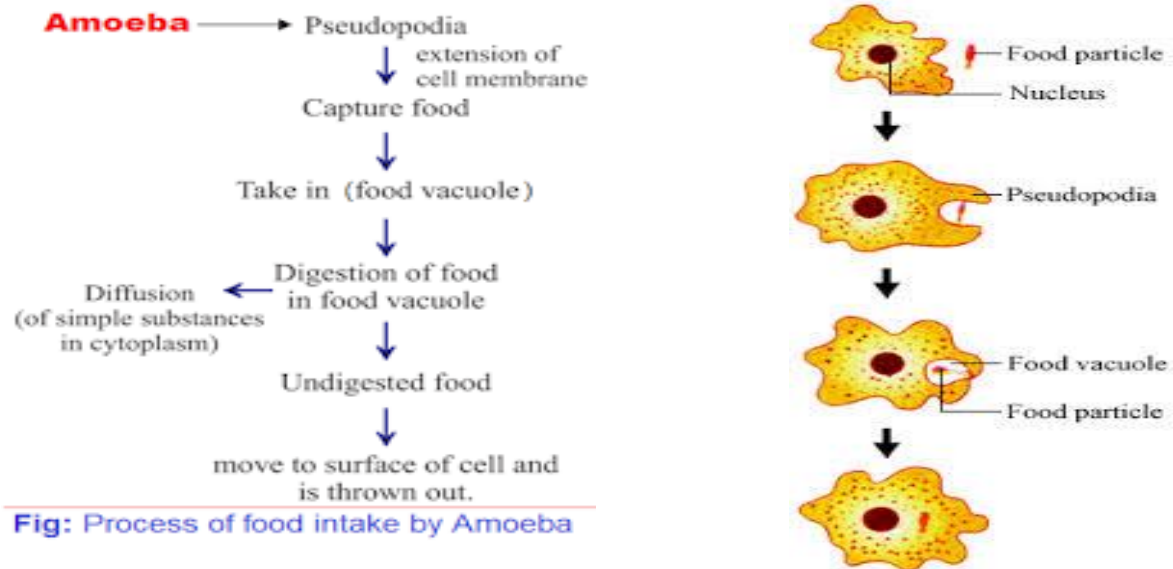
• Nutrition of Amoeba:

- 1) **Ingestion:** Amoeba captures food near its body through temporary finger-like projections called pseudopodia to form food vacuole.
- 2) **Digestion:** Enzymes enter food vacuole from cytoplasm. The enzymes convert the taken food to smaller substances which can be absorbed by body.
- 3) **Absorption:** The digested food diffuses out to reach to the entire body.

4) **Assimilation:** Amoeba cell obtains energy from the absorbed food. Body uses the food for growth.

5) **Egestion:** Cell membrane of amoeba ruptures at any point to throw out waste material.

Enzymes: Enzymes are juice like substances secreted by organs in living organisms which act as bio-catalyst in biochemical reactions inside the body. There are five steps in the process of nutrition in animals.



1. Ingestion: The process of taking food into the body is called ingestion.

2. Digestion: The process in which the food containing large insoluble molecules is broken down into small water soluble molecules which can be absorbed by body to get required nutrients is called digestion.

3. Absorption: The process of distribution of digested food to body parts is called absorption.

4. Assimilation: The process in which the absorbed food is taken in by the body cells and used for energy, growth and repair is called assimilation.

5. Egestion: The process in which the undigested food is removed from the body is called egestion.

Nutrition in Human Beings (Digestive System in Human Body):

The human digestive system comprises of the alimentary canal and associated glands.

➤ **Alimentary canal:** It comprises

1. Mouth (Buccal cavity),
2. Oesophagus (Food pipe),
3. Diaphragm (Sheet),
4. Stomach (J shaped),
5. Small intestine,
6. Large intestine,
7. Rectum,
8. Anus

➤ **Associated Glands:** It comprises

1. Salivary gland
2. Gastric gland
3. Liver
4. Pancreas

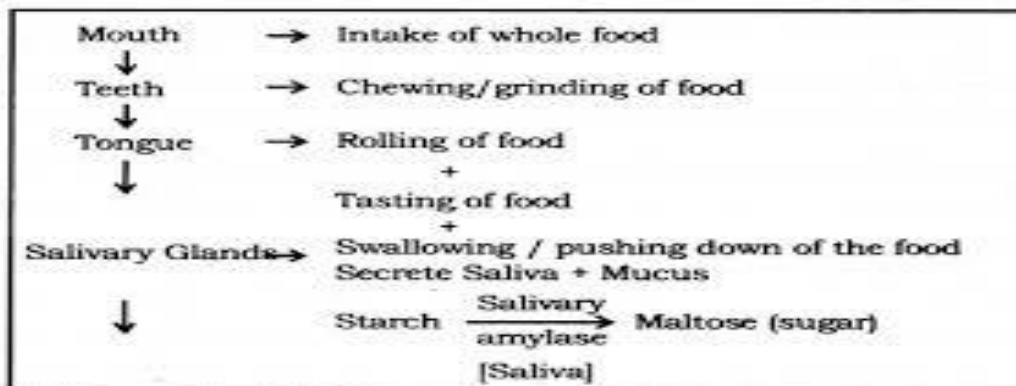
Working of Digestive System -

1) Ingestion: In human beings, food is ingested through the mouth. The food is put into the mouth with the help of hands.

2) Digestion:

(i) Mouth:

- The digestion of food begins in the mouth itself.
- The teeth cut the food into small pieces, chew and grind it. (Physical digestion)
- The salivary glands in our mouth produce saliva (watery liquid) which contains an enzyme salivary amylase which digests the starch (carbohydrate) present in the food into sugar. (Chemical digestion)
- Our tongue helps in mixing this saliva with food. It has gustatory receptor.
- The digestion of food remains incomplete in mouth.
- **Salivary glands** in our mouth produce saliva (watery liquid) which contains enzyme called salivary amylase which digests the starch (carbohydrate) present in the food into sugar (Chemical digestion).



(ii). Oesophagus:

- The slightly digested food in the mouth is swallowed by the tongue and goes down the food pipe called oesophagus. By peristaltic movement.
- **Peristaltic movement:** When the slightly digested food enters the food pipe, the walls of food pipe start contraction and expansion movements to move the food along gut. This movement of walls of food pipe is called peristaltic movement.

(iii) Stomach:

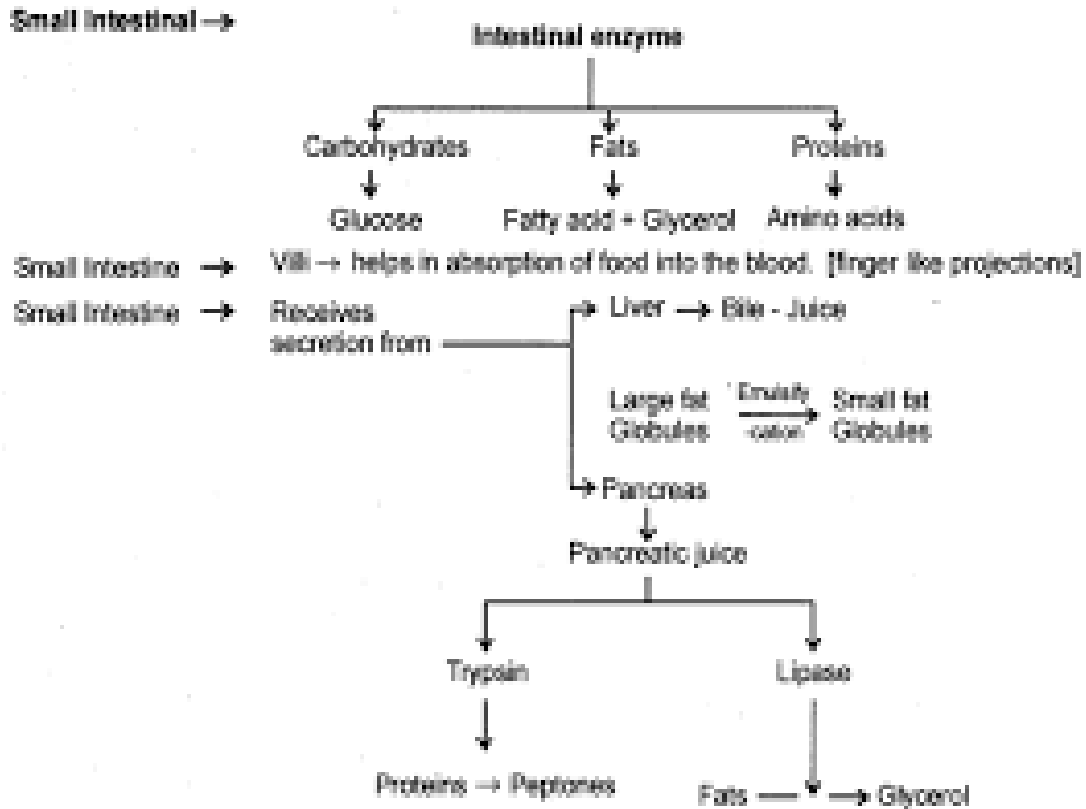
- The stomach is a J-shaped organ present on the left side of the abdomen.
- The stomach walls contains three tubular glands in it walls which secrete gastric juice.
- The gastric juice contains three substances: **Hydrochloric acid**, the **enzyme pepsin** and **mucus**.
- The hydrochloric creates an acidic medium which facilitates the action of the enzyme pepsin i.e. digestion of protein.
- The mucus helps to protect the stomach wall from its own secretions of hydrochloric acid.
- The partially digested food then goes from the stomach into the small intestine

(iv) Small Intestine:

- From the stomach, the partially digested food enters the small intestine.
- The small intestine is the largest part (about 6.5m) of the alimentary canal.
- The small intestine is very narrow and arranged in the form of a coil in our belly.
- The small intestine in human beings is the site of complete digestion of food (like carbohydrates, proteins and fats)
- The small intestine receives the secretion of two glands: Liver and Pancreas.
- **Liver** secretes greenish yellow liquid called bile. Bile is temporarily stored in gall bladder before it is send to small intestine through bile duct.

Bile performs two functions:

1. Makes the acidic food coming from the stomach alkaline so that pancreatic enzymes can act on it.
 2. Bile salts break the fats present in the food into small globules making it easy for the enzymes to act and digest them.
- **Pancreas** lies behind the lower portion of stomach. It secretes pancreatic juice which contains enzymes like pancreatic amylase for breaking down starch, trypsin for digesting proteins and lipase for breaking down emulsified fats.
 - The walls of the small intestine contain glands which secretes intestinal juice.
 - The enzymes present in it finally convert the proteins into amino acids, complex.
- carbohydrates into glucose and fats into fatty acids and glycerol. In this way the process of digestion converts the large and insoluble food molecules into small water soluble molecules.



3.Absorption: The small intestine is the main region for the absorption of digested food.

- The inner surface of the small intestine has numerous finger-like projections called villi which increase the surface area for rapid absorption of digested food.
- The digested food which is absorbed through the walls of the small intestine goes into our blood.

4.Assimilation:

- The blood carries digested and dissolved food to all the parts of the body where it becomes assimilated as part of the cells and is utilized for obtaining energy, building up new tissues and the repair of old tissues.

5.Egestion:

- The unabsorbed food is sent into the large intestine where villi absorb water from this material.
- The rest of the material is removed from the body via the anus.
- The exit of this waste material is regulated by the anal sphincter.
- **Sphincters:** These are circular muscular structures which control the movement of substance through them. Normally, they remain closed. When movement is required, they open. There are many sphincters in gut.

➤ **Tooth Decay / Dental Caries**

➤ **Basic Structure of Tooth**

Structure of tooth mainly contains three parts:

1. Enamel: It's a hardest part in the body, harder than bones.
2. Dentine: It is similar to bone.
3. Pulp cavity: It has nerves and blood vessels.

● **How tooth decays?**

- Sugar is present in food we eat.
- When we eat the food, bacteria in our mouth reacts with sugar and makes acid.
- This acid can destroy enamel and dentine slowly.
- Saliva neutralizes the acid and thus our teeth are saved.
- Improper brushing leads to deposit of food along with bacteria in mouth on teeth. This is called dental plague.
- Due to dental plague, saliva fails to protect corroding of tooth by acid and thus tooth decays.

Effect:

When acid comes in contact with nerves in pulp cavity, it creates toothache and inflammation.

Answer the following questions:

1. Why is diffusion insufficient to meet the oxygen requirements of multicellular organisms like humans
2. What criteria do we use to decide whether something is alive?
3. What are outside raw materials used for by an organism?
4. What processes would you consider essential for maintaining life?
5. What are the differences between autotrophic nutrition and heterotrophic nutrition?
6. Where do plants get each of the raw materials required for photosynthesis?
7. What is the role of the acid in our stomach?
8. What is the function of digestive enzymes?
9. How is the small intestine designed to absorb digested food?
10. The autotrophic mode of nutrition requires
 - (a) carbon dioxide and water
 - (b) chlorophyll
 - (c) sunlight
 - (d) all of the above
11. How are fats digested in our bodies? Where does this process takes place?
12. What is the role of saliva in food digestion?
13. What are the necessary conditions for autotrophic nutrition and what are its by-products?

Activity: Draw the human digestive system and labell the all parts. (Hint: See the diagram from NCERT book , page no : 99 ,Fig: 6.6)

NOTE:

- ❖ **Above questions are given from NCERT blue box questions and exercise (page no 95, 101,113). For solution check the NCERT solution app.**

- **Click over the link to get the knowledge about nutrition in plants :**
<https://www.youtube.com/watch?v=GO5-EHkxuf4>
- **Click over the link to get the knowledge about photosynthesis:**
<https://www.youtube.com/watch?v=3pD68uxRLkM>
- **Click over the link to get the knowledge about opening and closing of stomata :**
<https://www.youtube.com/watch?v=JQvdXX7hGqI>

- **Click over the link to get the knowledge about nutrition in amoeba:**
<https://www.youtube.com/watch?v=QLImA1hMRr0>
- **Click over this link to get the knowledge about human digestive system:**
<https://www.youtube.com/watch?v=A6IRU6pYiAc>
- **Click over this link to get the knowledge about working of human digestive system:**
<https://www.youtube.com/watch?v=tDGKKn7guoA>