

15/11/20

SUB-SCIENCE

CLASS - VII

CHAPTER - 2 (Nutrition in Animals)

Task: A - Read the chapter

Task: B :- All these QIA in #1C.

Task: C :- Make a colourful diagram of human digestive system on first page of 2nd chapter. (fig 2.2)

Q1. What is nutrition?

Ans: Try yourself.

Q2. What is digestion?

Ans: Breakdown of complex components of food into simpler substances is called digestion.

Q3. What is digestive system?

Ans: The digestive system is a group of organs working together to convert food into energy and the basic nutrients to provide the body.

Q4. Write down parts of human digestive system.

Ans: (i) Buccal cavity (ii) Food pipe

(iii) Stomach (iv) Small intestine

(v) Large intestine (vi) Anus

# 2

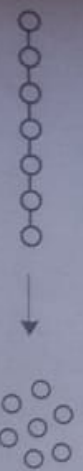
## Nutrition in Animals

You have learnt in Chapter 1 that plants can prepare their own food but animals cannot. Animals get their food from plants, either directly by eating plants or indirectly by eating animals that eat plants. Some animals eat both plants and animals. Recall that all organisms including humans require food for growth, repair and functioning of the body. **Animal nutrition includes nutrient requirement, mode of intake of food and its utilisation in the body.**

You have studied in Class VI that food consists of many components. Try to recall and list them below:

1. Carbohydrates
2. Proteins
3. Fats
4. Vitamins
5. Minerals
6. \_\_\_\_\_

The components of food such as carbohydrates are complex substances. These complex substances cannot be utilised as such. So they are broken down into simpler substances. The breakdown of complex components of



Complex substance

Simpler substances

food into simpler substances is called **digestion**.

### 2.1 DIFFERENT WAYS OF TAKING FOOD

The mode of taking food into the body varies in different organisms. Bees and humming-birds suck the nectar of plants, infants of human and many other animals feed on mother's milk. Snakes like the python swallow the animals they prey upon. Some aquatic animals filter tiny food particles floating nearby and feed upon them.

### Activity 2.1

What is the type of food and mode of feeding of the following animals? Write down your observations in the given Table. You may find the list of modes of feeding given below the Table helpful.

Table 2.1 Various modes of feeding

Name of animal	Kind of food	Mode of feeding
Snail	Grass	Chewing
Ant	Grain	Swallowing
Eagle	Flesh	Swallowing
Humming-bird	Nectar	Sucking
Lice	Blood	Sucking
Mosquito	"	"
Butterfly	Nectar	"
House fly	Decaying matter	Swallowing

(Scraping, chewing, siphoning, capturing and swallowing, sponging, sucking etc.)

### Amazing fact

Starfish feeds on animals covered by hard shells of calcium carbonate. After opening the shell, the starfish pops out its stomach through its mouth to eat the soft animal inside the shell. The stomach then goes back into the body and the food is slowly digested.



Fig. 2.1 Starfish

## 2.2 DIGESTION IN HUMANS

We take in food through the mouth, digest and utilise it. The unused parts of the food are defecated. Have you ever wondered what happens to the food inside the body? The food passes through a continuous canal (Fig. 2.2) which begins at the buccal cavity and ends at the anus. The canal can be divided into various compartments: (1) the **buccal cavity**, (2) foodpipe or **oesophagus**, (3) **stomach**, (4) **small intestine**, (5) **large intestine** ending in the **rectum** and (6) the **anus**. Is it not a very long path? These parts together form the **alimentary canal (digestive tract)**. The food components gradually get digested as food travels through the various compartments. The inner walls

of the stomach and the small intestine and the various glands associated with the canal such as **salivary glands**, the **liver** and the **pancreas** secrete digestive juices. The digestive juices convert complex

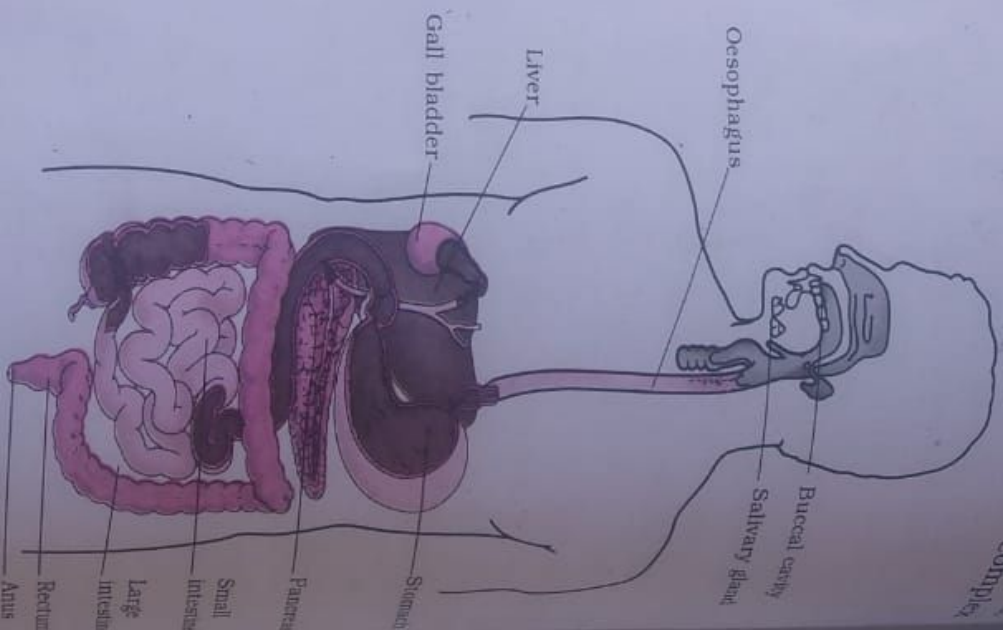


Fig. 2.2 Human digestive system

substances of food into simpler ones. The digestive tract and the associated glands together constitute the **digestive system**. Now, let us know what happens to the food in different parts of the digestive tract.

### The mouth and buccal cavity

Food is taken into the body through the mouth. The process of taking food into

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