

LABASA SANGAM (SKM) COLLEGE

YEAR 12 BIOLOGY

SUPPLEMENTARY RESOURCES

1. Plants contain cellulose which is not easily digested by the gastric juices. State two (2) adaptations in mammals that assists them in digesting plant cells.

2. State two (2) adaptive features of the organism (insects) that prevents it from dehydration.

3. There are two main modes of nutrition: Autotrophic and Heterotrophic nutrition. Differentiate between the two modes.

4. Fungi and bacteria have external digestion.

- (i) Explain what external digestion means.

- (ii) What is the potential disadvantage of external digestion?

- (iii) Why is this disadvantage not a problem for fungi?

5. Humans have teeth to grind up the food eaten. What feature is present in birds to carry out the process of grinding up of food?

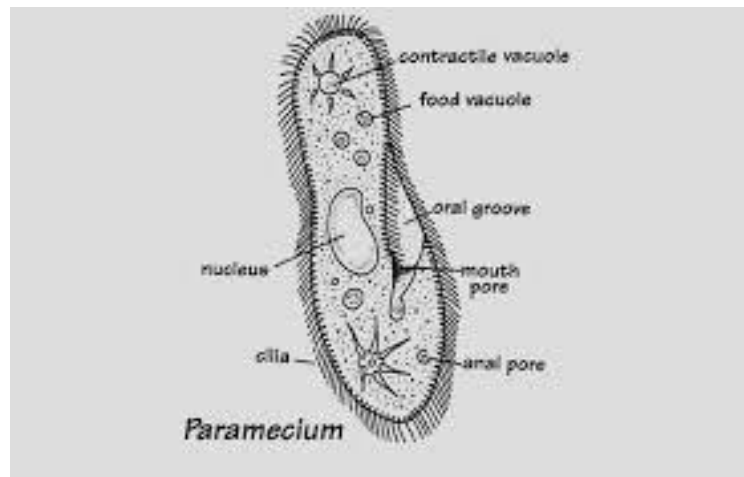
6. Photosynthesis is the process of making food in plants.

(i) Write the chemical equation for photosynthesis.

(ii) State three(3) adaptation of leaves for photosynthesis.

7. Saprophytic bacteria and fungi are decomposers. State the importance of decomposers.

8. Study the diagram below to answer the following questions.



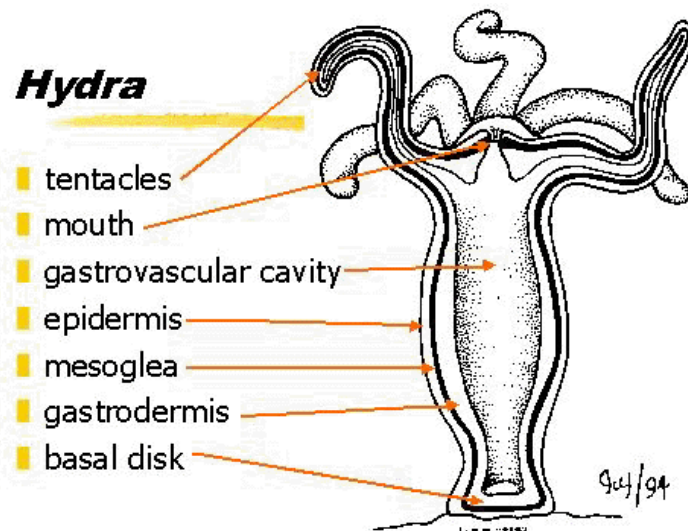
State how the following structures of the paramecium help in feeding.

(i) Cilia

(ii) Oral groove

(iii) Contractile vacuole

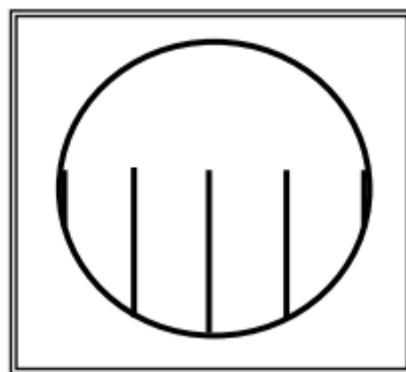
9. Use the following diagram of a Hydra to answer the following questions.



(i) State the type of gut system hydra has.

(ii) State the function of the tentacles.

10. A group of sixth form students carried out microscopic measurements using a clear millimeter ruler at 50X as shown below. Use the diagram given below to answer the questions that follow.



i. Calculate the diameter of the field of view at 200X magnification in micrometers (μm). Show your working.

ii. If three cells of equal sizes were observed along the diameter at 200X magnification, calculate the size of **one** cell in micrometers. Show your working.