# **DIGESTIVE SYSTEM GUIDED NOTES**

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1. All Organisms must consume \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. There are 3 main types of consumers. List their feeding behaviors and give an example of each:
3. Herbivores
4. Carnivores
5. Omnivores
6. There are 4 ways organisms can ingest their food. Organisms do not have multiple means of ingestion. List their means of ingestion and give an example.
7. suspension feeders
8. substrate feeders
9. fluid feeders
10. bulk feeders
11. The processing of food for nutrients happens in 4 phases. \*\*These steps MUST take place in this order!\*\*

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1. Give a brief description of each of the steps involved with food processing.
2. If an organisms has only one opening (eat & poop from the same place), they have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cavity. Ex:
3. Animals that have both a mouth and an anus have an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ canal. (Lucky!)
4. As humans, we have an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ canal and some accessory \_\_\_\_\_\_\_\_\_\_\_\_.

Alimentary structures:

Digestive glands:

Sphincters:

Peristalsis:

1. Digestion begins in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (also called \_\_\_\_\_\_\_)
2. What is the difference between mechanical and chemical digestion?
3. Salivary glands secrete saliva. Saliva is made up of the following components that you will need to know:

Glycoprotein:

Buffers:

Antibacterial agents:

Amylase:

1. What is a bolus and what structure in the mouth helps to create it?
2. Some textbooks will have the mouth (teeth specifically) lumped in with the digestive system because of their assistance with mechanical digestion. Which other system may also claim the teeth as one of its structures?
3. What is the function of each tooth shape?

Incisors:

Canines:

Molars:

15. Swallowing process:

a. tongue pushes the \_\_\_\_\_\_\_\_\_\_ into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

b. esophageal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relaxes to allow the bolus to pass

c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ covers the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pushes the food towards the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. The stomach’s job is to store and break down food with \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ digestion.

17. Gastric juice (stomach acid) contains:

18. Human stomach lining is fully replaced every \_\_\_\_\_\_ days. Why do cancer treatments make people physically sick?

19. Define “chyme”.

20. What is the job of the pyloric sphincter?

21. List the 3 parts of the small intestine:

22. The duodenum completes digestion by emulsifying \_\_\_\_\_\_\_\_\_.

23. The liver produces \_\_\_\_\_\_\_\_ to emulsify (break down) \_\_\_\_\_\_\_\_\_\_\_\_. Before being added to chyme in the small intestine, bile made in the liver but was stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

24. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_ also adds to chyme a buffer solution to neutralize the HCL that was added in the stomach. What could happen if the chyme’s acidity isn’t neutralized?

25. The last of digestion occurs in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, whereas nutrient \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs in the jejunum and ileum.

26. The small intestine is full of \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that increase the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the intestine lining.

27. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, also called the \_\_\_\_\_\_\_\_\_\_\_, reclaims water and compacts the feces.

28. The large intestine has 3 parts: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

29. The small intestine empties into the \_\_\_\_\_\_\_\_\_\_\_\_\_ of the large intestine. Attached at the end of the colon is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is suggested that the appendix played a role in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Function of the large intestine:

30. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is reabsorbed. This results in a solidification of \_\_\_\_\_\_\_\_\_\_\_. If your large intestine cells are inflamed, water absorption may be impaired.

31. What illness is caused by too little water being removed from feces?

32. What illness is caused by too much water being removed from feces?

33. In addition to water, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ produced by bacteria are also absorbed.

34. Adaptations of vertebrate digestive systems reflect their \_\_\_\_\_\_\_\_\_\_\_\_\_.

35. Describe the digestive systems of:

Carnivores:

Herbivores & Omnivores:

36. Ruminant alimentary canal is a \_\_\_\_\_ chambered stomach found in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mammals.

37. Ruminant stomachs produce \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Why might an animal “re-chew” their food?

-chambers contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ microbes.

- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are digested along with nutrients from food.

38. How does a cow’s stomach differ from a human’s stomach?