

# CHAPTER 9

# Life Processes in Animals

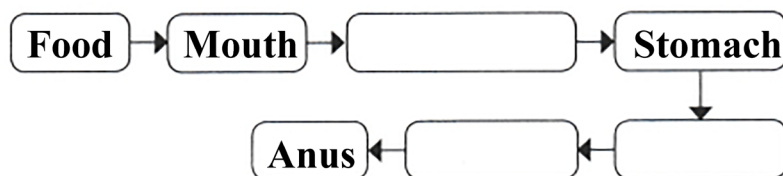


P1

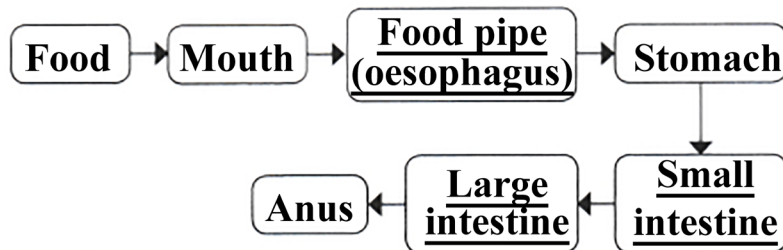


P2

1. Complete the journey of food through the alimentary canal by filling up the boxes with appropriate parts:



Answer



2. Sahil placed some pieces of chapati in test tube A. Neha placed chewed chapati in test tube B, and Santushti took boiled and mashed potato in test tube C. All of them added a few drops of iodine solution to their test tubes A, B, and C, respectively. What would be their observations? Give reasons.

### ANSWER:

The observations can be explained by the given table:

Material	Iodine solution	Observation	Reason
Sahil – Chapati	Yes	Blue-black colour	Starch is present and undigested
Neha – Chewed chapati	Yes	Slight or no colour change	Starch is partially digested into sugars by salivary amylase
Santushti – boiled and mashed potato	Yes	Blue-black colour	Potato contains a lot of starch that reacts strongly with iodine

3. What is the role of diaphragm in breathing?

(i) To filter the air

(ii) To produce sound

(iii) To help in inhalation and exhalation

(iv) To absorb oxygen



**ANSWER:**

(iii) To help in inhalation and exhalation

**4. Match the following:**

Name of the part	Functions
Nostrils	(a) fresh air from outside enters
Nasal passages	(b) exchange of gases occurs
Windpipe	(c) protects lungs
Alveoli	(d) tiny hair and mucus help to trap dust and dirt from the
Ribcage	(e) air we breathe air reaches our lungs through this part

**ANSWER**

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Windpipe	(e) air we breathe air reaches our lungs through this part
Alveoli	(b) exchange of gases occurs
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**5. Anil claims to his friend Sanvi that respiration and breathing are the same process. What question(s) Sanvi ask him to make him understand that he is not correct?****ANSWER**

Sanvi can ask the following questions to Anil to make him understand that breathing and respiration are not the same process:

1. Do plants breathe? How do they get oxygen?
2. Does the carbon dioxide we exhale come from respiration or breathing?
3. Can we perform respiration without breathing for a short time?
4. Can you give an example of a process that involves breathing but not respiration?

**6. Which of the following statement is correct and why?**

Anu: We inhale air.

Shanu: We inhale oxygen.

Tanu: We inhale air rich in oxygen.

**ANSWER**

**Tanu's statement is correct:** We inhale air rich in oxygen. When we inhale, we take in air that contains about 21% oxygen and exhale air having more carbon dioxide than inhale

**7. We often sneeze when we inhale a lot of dust laden air. What can be possible explanations for this?****ANSWER:**

When we inhale a lot of dust-laden air, the dust particles get trapped in the hair of our nasal cavity. These particles irritate the lining of the cavity. As a result, we sneeze to expel these dust particles. Sneezing expels these foreign particles from the inhaled air, and dust-free, clean air enters our bodies.

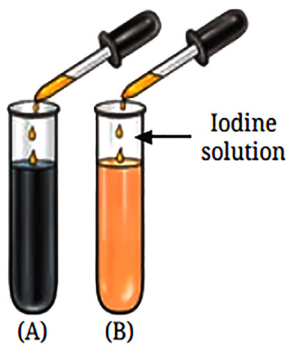


8. Paridhi and Anusha of Grade 7 started running for their morning workout. After they completed their running, they counted their breaths per minute. Anusha was breathing faster than Paridhi. Provide at least two possible explanations for why Anusha was breathing faster than Paridhi.

**ANSWER:**

**Two possible explanations:**

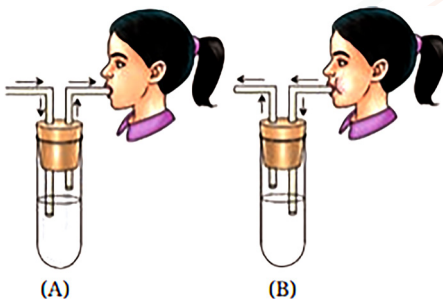
- Anusha might not be fit and healthy, and her lungs were not working efficiently.
  - She might have asthma or a cold, and she was struggling to get enough oxygen
9. Yadu conducted an experiment to test his idea. He took two test tubes, A and B, and added a pinch of rich flour to the test tubes half-filled with water and stirred them properly. To test tube B, he added a few drops of saliva. He left the two test tubes for 35-45 min. After that, he added iodine solution into both the test tubes. Experimental results are as shown in Figure. What do you think he wants to test?



**ANSWER:**

Yadu wants to test the presence of starch in both test tubes.

10. Rakshita designed an experiment taking two clean test tubes, A and B and filled them with lime water as shown in the figure. In test tube A, the surrounding air that we inhale was passed on by sucking air from the pipe, and in test tube B, the exhaled air was blown through the pipe. What do you think she is trying to investigate? How can she confirm her findings?



**ANSWER:**

Rakshita is trying to investigate the gas we inhale and exhale while breathing. The lime water in test tube B turned milky (or cloudy), but the lime water in test tube A did not. Lime water turns milky when it reacts with carbon dioxide. Therefore, this indicates that the exhaled air contains more carbon dioxide than the air we inhaled.

