

CLASS 7

SCIENCE

EXTRA QUESTIONS

## Extra Questions for Class 7 Science Chapter 9: Life Processes in Animals

---

Fresh practice questions for Class 7 Science Chapter 9 "Life Processes in Animals", reinforcing digestion and respiration concepts.

Fresh practice questions for Class 7 Science Chapter 9 “Life Processes in Animals”, reinforcing digestion and respiration concepts.

### Q1.

Why does chewing food thoroughly before swallowing aid digestion?

**Answer:** Chewing breaks food into smaller pieces, increasing the surface area for digestive enzymes (like salivary amylase) to act on, and mixes food with saliva, which begins breaking down starch even before it reaches the stomach.

### Q2. Assertion-Reason

**Assertion (A):** Exhaled air turns lime water milky.

**Reason (R):** Exhaled air contains a higher concentration of carbon dioxide than inhaled air.

**Answer:** Both A and R are true, and R correctly explains A.

### Q3.

Explain why fish would not survive if taken out of water for an extended period, in terms of respiration.

**Answer:** Fish respire using gills, which are adapted to extract dissolved oxygen from water. Out of water, the gill filaments collapse and dry out, preventing oxygen absorption from air, so the fish cannot breathe effectively and eventually suffocates.

### Q4. Spot the error

A student wrote: “Digestion of starch begins in the stomach.” Identify and correct the error.

**Answer:** This is incorrect. Digestion of starch actually begins in the **mouth**, where salivary amylase in saliva starts breaking down starch into simpler sugars.

### Q5. HOTS

A person breathing rapidly during intense exercise takes in more oxygen than while resting. Explain why the body needs more oxygen during exercise.

**Answer:** During exercise, muscles work harder and require more energy, which is released through respiration (breaking down glucose using oxygen). This increased energy demand means muscle cells need more oxygen delivered and more carbon dioxide removed, so breathing rate increases to meet this demand.

### Q6.

Design a simple experiment (using only lime water and a straw) to test whether a gas sample is exhaled breath or fresh outdoor air.

**Answer:** Bubble the gas sample through clear lime water using a straw. If the lime water turns milky, the sample contains a relatively high concentration of carbon dioxide, indicating it is likely exhaled breath; if it stays clear, it is more likely fresh air.

#### Q7.

---

Why do our nostrils have hair and produce mucus?

**Answer:** The hair and mucus in the nostrils trap dust particles, pollen, and other foreign matter from the air we breathe in, preventing them from reaching the lungs and helping keep the respiratory system clean and healthy.

#### Q8.

---

A cow and a human both eat plant-based food, but cows can digest grass efficiently while humans cannot. Explain why, based on rumination.

**Answer:** Cows are ruminants with a multi-chambered stomach; they regurgitate partially digested food (cud) and chew it again, along with the help of specialized microbes that break down tough plant cellulose. Humans lack this rumination process and the microbes needed to digest cellulose, so we cannot extract nutrients from grass efficiently.

#### Q9.

---

Explain the difference between breathing and respiration using an example.

**Answer: Breathing** is the physical process of inhaling and exhaling air (a mechanical process). **Respiration** is the biochemical process inside cells where glucose is broken down using oxygen to release energy, producing carbon dioxide as a byproduct. For example, breathing brings oxygen into the lungs, but respiration is what actually uses that oxygen at the cellular level to generate energy for the body.

#### Q10.

---

Why might a person feel dizzy or short of breath at very high altitudes (like on a mountain)?

**Answer:** At high altitudes, the air is thinner and contains less oxygen per breath. This means the body takes in less oxygen with each inhalation, which can lead to insufficient oxygen supply to cells, causing dizziness and breathlessness until the body adapts.

See also: [NCERT Solutions for Class 7 Science Chapter 9](#)

Revision Notes: [Revision Notes for Class 7 Science Chapter 9](#)