

CLASS 10

SCIENCE

REVISION NOTES

Revision Notes: Class 10 Science Chapter 5 Life Processes

A fast, one-glance recap of Class 10 Science Chapter 5 (Life Processes) — for the full explanations, see the Solutions. These Class 10 Science Chapter 5 notes are ideal for quick revision just before exams.

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Why This Chapter Matters

Life Processes is one of the standard chapters in the CBSE/NCERT Class 10 Science syllabus and questions from it appear regularly in board exams, in formats ranging from 1-mark objective questions to longer 3-5 mark descriptive or numerical questions. Because the concepts here often build on earlier chapters (and feed into later ones), a solid grip on this chapter also makes the rest of the Science syllabus easier to follow.

Revision Notes: Life Processes

Life processes: nutrition, respiration, transportation, excretion — basic processes needed to maintain the body

Autotrophic nutrition: organism makes its own food (e.g. green plants) — needs CO_2 , water, sunlight, chlorophyll; releases O_2 as by-product

Heterotrophic nutrition: organism depends on others for food (e.g. humans, Amoeba)

Human digestion path: mouth (salivary amylase) → stomach (HCl + pepsin) → small intestine (bile emulsifies fat; pancreatic + intestinal enzymes; villi absorb nutrients) → large intestine (water absorption)

Aerobic respiration: needs O_2 , occurs in mitochondria, glucose fully broken down → more energy

Anaerobic respiration: no O_2 needed, occurs in cytoplasm, glucose partially broken down (ethanol+ CO_2 in yeast, or lactic acid in muscle) → less energy

Human respiratory path: nose → trachea → bronchi → bronchioles → alveoli (gas exchange: huge surface area, thin walls, rich blood supply)

Double circulation: blood passes through the heart twice per cycle (pulmonary + systemic) — keeps oxygenated/deoxygenated blood separate, needed for high, constant energy demand

Excretory system: kidneys (basic unit: nephron) filter blood → urine → ureters → bladder → urethra

Xylem: water/minerals, one-way (upward), dead cells, passive (transpiration pull)

Phloem: food, both directions (source to sink), living cells, active transport (uses ATP)

Key comparison: alveoli (gas exchange) vs nephrons (blood filtration) — both maximise surface area via millions of thin-walled, richly-vascularised units

See also: [Extra Questions \(HOTS\)](#) / [Formulas Handbook](#)

How to Use These Notes

These revision notes are meant for quick recall in the last few days before an exam or unit test — they are not a substitute for first reading the full chapter and working through examples in the NCERT textbook. A good routine is: read the chapter once, solve the in-text and end-of-chapter questions using the linked Solutions, then come back to this page a day or two before the exam to refresh the key definitions and formulas without re-reading the whole chapter.

Class 10 Science Chapter 5 – Solutions and Important Questions

Need full answers or more practice? See the [Class 10 Science Chapter 5 Solutions](#) and [Class 10 Science Chapter 5 Extra Questions](#).

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