

CLASS 10

SCIENCE

REVISION NOTES

Class 10 Science Chapter 8 Revision Notes – Heredity

Need full answers or more practice? See the Class 10 Science Chapter 8 Solutions and Class 10 Science Chapter 8 Extra Questions. These Class 10 Science Chapter 8 notes are ideal for quick revision just before exams.

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Class 10 Science Chapter 8 – Heredity and Evolution: Revision Notes

Heredity and Evolution: transmission of traits from parents to offspring across generations.

Gene / Allele: a gene is a unit of heredity; alleles are alternative forms of a gene (e.g. T for tall, t for short).

Genotype vs Phenotype: genotype = genetic makeup (e.g. Tt); phenotype = observable trait (e.g. tall).

Homozygous vs Heterozygous: homozygous = both alleles same (TT or tt); heterozygous = alleles differ (Tt).

Dominant vs Recessive: dominant allele expresses even in heterozygous condition; recessive expresses only when homozygous.

Monohybrid cross F2 ratio: 3 (dominant) : 1 (recessive); genotypic 1:2:1.

Dihybrid cross F2 ratio: 9:3:3:1.

Sex determination in humans: XX = female, XY = male; father's sperm (X or Y, 1:1 ratio) determines the child's sex.

Variation: differences arising during reproduction/DNA copying; provides the raw material for a species to survive environmental change.

Acquired vs inherited traits: only germ-cell (egg/sperm) DNA changes are inherited; somatic changes from lifestyle are not passed on.

Syllabus note (2023 rationalisation): the Evolution section of the earlier "Heredity and Evolution" chapter has been removed; this chapter is titled simply "Heredity and Evolution".

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