

CLASS 9

SCIENCE

REVISION NOTES

## Class 9 Science Chapter 7 Work, Energy and Simple Machines – Revision Notes

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Quick revision notes for Class 9 Science Chapter 7 (Work, Energy and Simple Machines). These Class 9 Science Chapter 7 notes are ideal for quick revision just before exams.

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One-Line Summary

Quick revision notes for Class 9 Science Chapter 7 (Work, Energy and Simple Machines). These Class 9 Science Chapter 7 notes are ideal for quick revision just before exams.

## Work

$W = F \times d$  (force  $\times$  displacement in direction of force).

No displacement or perpendicular displacement = no work.

## Energy

$KE = \frac{1}{2}mv^2$  (kinetic, motion).

$PE = mgh$  (gravitational potential).

Work-energy theorem: net work = change in KE.

Conservation of energy: total energy constant, only transforms.

## Power

$P = W/t$ ; SI unit: watt (W).

## Simple Machines

Mechanical advantage = load/effort.

Pulleys: change force direction; multiply effort with multiple pulleys.

Inclined plane: trades distance for reduced force.

Lever: multiplies force via fulcrum placement.

Machines don't reduce total work (ignoring friction) — they trade force for distance.

## One-Line Summary

Work (force  $\times$  displacement) links to kinetic and potential energy through the work-energy theorem and conservation of energy, power measures how fast work is done, and simple machines make tasks easier by trading force for distance without changing total work.

**See also:** [Chapter 1](#) | [Chapter 2](#) | [Chapter 3](#) | [Chapter 4](#) | [Chapter 5](#) | [Chapter 6](#) | [Chapter 7](#)

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