

CLASS 6

Physics & Chemistry — Complete Formula Handbook

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PHYSICS

Motion and Measurement of Distances

Speed	Speed = Distance / Time <i>SI unit: m/s</i>
Distance	Distance = Speed × Time
Time	Time = Distance / Speed
SI unit of length	metre (m)
SI unit of time	second (s)
Types of motion	Rectilinear, Circular, Periodic/Oscillatory

Light, Shadows and Reflections

Types of objects	Transparent, Translucent, Opaque
Reflection	Bouncing back of light from a surface
Shadow formation	Opaque object blocks light → shadow formed on the opposite side

Electricity and Circuits

Simple circuit	Cell + Wires + Switch + Bulb (closed loop)
Conductor	Material that allows electric current to pass (e.g., metals)
Insulator	Material that does not allow current to pass (e.g., rubber, plastic)

Fun with Magnets

Poles of a magnet	Every magnet has a North pole and a South pole
Like/unlike poles	Like poles repel, unlike poles attract

CHEMISTRY

Food: Where Does It Come From

Sources of food	Plants and Animals
Herbivore / Carnivore / Omnivore	Plant eaters / Meat eaters / Both

Components of Food

Nutrients	Carbohydrates, Proteins, Fats, Vitamins, Minerals
Balanced diet	Diet containing all nutrients in the right proportion
Deficiency diseases	Scurvy (Vit C), Rickets (Vit D), Beriberi (Vit B1), Night blindness (Vit A)

Sorting Materials into Groups

Properties used for sorting	Appearance, hardness, solubility, transparency, floating/sinking
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Separation of Substances

Common methods	Handpicking, Threshing, Winnowing, Sieving, Sedimentation, Decantation, Filtration, Evaporation
Evaporation	Conversion of liquid into vapour on heating
Condensation	Conversion of vapour into liquid on cooling

Changes Around Us

Reversible change	Change that can be reversed, e.g., melting of wax
Irreversible change	Change that cannot be reversed, e.g., burning of paper

Water

States of water	Solid (ice) ■ Liquid (water) ■ Gas (water vapour)
Water cycle	Evaporation → Condensation → Precipitation

Air Around Us

Composition of air (approx.)	Nitrogen 78%, Oxygen 21%, Other gases 1%
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