



JUNIOR PHYSICS OLYMPIAD (JPO)

Syllabus – 2026 - 2027

Class : VIII

UNIT 1: Advanced Vectors

- Vector representation
- Vector addition
- Opposite vectors
- Resultant vectors
- Directional motion problems

UNIT 2: Newtonian Mechanics

- Force and motion
- Newton's Laws
- Applications
- Free-body reasoning

UNIT 3: Momentum

- Momentum
- Impulse
- Conservation of momentum
- Collision reasoning

UNIT 4: Friction

- Types of friction
- Rolling friction
- Fluid friction
- Applications

UNIT 5: Work, Energy and Power

- Work
- Energy
- Kinetic energy
- Potential energy
- Power
- Energy transformations
- Conservation of energy

UNIT 6: Pressure and Fluids

- Fluid pressure
- Atmospheric pressure
- Buoyancy
- Floatation

UNIT 7: Sound and Waves

- Vibrations
- Frequency
- Time period
- Amplitude
- Pitch
- Loudness
- Wave motion