



JUNIOR PHYSICS OLYMPIAD (JPO)

Syllabus – 2026 - 2027

Class : IX

UNIT 1: Kinematics

- Distance and displacement
- Speed and velocity
- Relative velocity
- Acceleration
- Motion graphs
- Equations of motion
- Numerical problems

UNIT 2: Vector Physics

- Vector addition
- Resolution of vectors
- Relative motion
- River-boat problems

UNIT 3: Dynamics

- Newton's Laws
- Momentum
- Impulse
- Conservation of momentum
- Friction
- Applications

UNIT 4: Gravitation

- Universal gravitation
- Gravity
- Free fall
- Mass and weight
- Satellites
- Orbital motion

UNIT 5: Work, Energy and Power

- Work-energy theorem
- Conservation of energy
- Mechanical systems

UNIT 6: Waves and Sound

- Wave motion
- Reflection of sound
- Echo
- SONAR
- Wave speed

UNIT 7: Experimental Physics

- Graph analysis
- Error analysis
- Data interpretation
- Experimental design