



Delhi Public School Srinagar

LESSON PLAN

Session 2015-2016

Class	: XI
Subject	: Physics
For the Month of	: November (last two weeks)
Units	: <i>Oscillations and Waves</i>
Periods	: 14

OBJECTIVES (CONCEPTS & SKILLS:) :

- *Periodic and oscillatory motion.*
- *Simple harmonic motion and force law for SHM.*
- *SHM and uniform circular motion.*
- *Velocity and acceleration SHM.*
- *Energy in SHM.*
- *Some systems executing SHM.*
- *Free and Damped oscillations.*
- *Forced oscillations and resonance.*
- *Wave motion ,transverse and longitudinal waves.*
- *Displacement relation in a progressive wave.*
- *Speed of travelling wave, reflection of waves.*
- *Superposition of waves- stationary waves , beats.*
- *Doppler effect.*

The teacher will keep the following skills in view:

- *Scientific Aptitude*
- *Thinking skills*
- *Reasoning Skills*
- *Attentiveness*
- *Listening Skills*

LEARNING OUTCOMES :

- Make it sure that the student learns the concepts given below.
- Periodic and non periodic motions, oscillations.
- Simple harmonic motion and terms related to SHM.
- Oscillations due to a spring and their combinations.
- Simple pendulum and time period of simple pendulum.
- Concept of natural frequency , damping and resonance.
- Transfer of energy without motion of bulk matter.
- Types of waves and their parameters.
- Speed of travelling wave and factors affecting it.
- Constructive and destructive interference.
- Standing waves in a string and organ pipe and normal modes.
- Formation of beats and beat frequency.
- Effect on frequency of sound due to relative motion between source and observer.

INSTRUCTIONAL TOOLS & REFERENCES :

Black board ,chalk and duster.

The References used :

1. *PHYSICS (TEXT BOOK II FOR CLASS XI)*, 2.*CONCEPTS OF PHYSICS BY H. C. VERMA*

PEDAGOGY: :

- i. *Activating Prior Knowledge by Random Questioning*
- ii. *Introducing the topic to be taught after getting the expected response from the students.*
- iii. *Developing hypothesis by (a) Lecture , (b) Discussion and (c) In Text Questions*

ACTIVITY/ASSIGNMENT/PROJECTS : *The teacher will give Home Assignments and the areas of assessment will be:*

Content of Knowledge, Presentation, Correctness, Time Management and Thinking skills

ASSESSMENT :

1. *Checking the note making on given topic*, 2.*Asking questions related to topic* , 3.*Home work* , 4.*In text questions*

FA₂ & SA₂ SYLLABUS :

FA Syllabus: Motion of system of particles and rotational motion ,Gravitation.

SA Syllabus: All units

