YEAR PLAN 2018 - 2019
GRADE IX PHYSICS

The academic year is divided into **two** sessions

Session One: June 2018 to October 2018

Session Two: November 2018 to March 2019

Continuous assessments: June, July, August ,September, November, December, January, February

Summative Assessment I: October 2018

Summative Assessment II: March 2019

Please check the **index page** in the notebooks for Continuous Assessment marks.

ENDURING UNDERSTANDING:

Understand and appreciate how things work.

OBJECTIVES: **To**

- learn and understand the terms, facts, concepts, definitions, laws, principles and processes of Physics.
- develop the skill to handle apparatus, record observations and draw diagrams, graphs, etc.
- be able to read data and draw conclusions and solve numerical problems.
- discover that there is a living and growing physics relevant to the modern age in which we live.

Projects: 6 experiments from the prescribed syllabus.

Session One – June 2018 to October 2018

DURATION	TOPIC	SPECIFIC LEARNING OBJECTIVE	ACTIVITIES	RESOURCES
June	Motion in one dimension Measurements and experimentation	• Recalls displacement, velocity and acceleration. • Understands equations of motion. • Solves numerical problems. • Recalls different systems of unit. • Learns to measure length using Vernier Callipers and Screw gauge.	Measures the length of a block using Vernier Callipers and the diameter of a wire using a Screw gauge . Draws distance-time and velocity-time graphs.	Concise Physics Part I for class IX
July	Laws of motion Magnetism	• Recalls contact and non-contact forces. • Interprets Newton's laws of motion and Universal law of gravitation. • Solves problems. • Recalls induced magnetism and electromagnetism. • Understands the properties of magnetic field lines and magnetic field of earth.	Simple activities to understand contact forces, non–contact forces, inertia, momentum and Newton's laws of motion. Experiment to show magnetic field lines around a bar magnet.	Concise Physics Part I for class IX
August	Heat and energy	• Differentiates between heat and temperature. • Understands energy sources, greenhouse effect and global warming.	Seminar on energy sources.	Concise Physics Part I for class IX
September	Reflection of light Propagation of sound waves	• Recalls the laws of reflection • Learns to draw images formed by two plane mirrors parallel to each other and perpendicular to each other. • Learns to draw formation of images by concave and convex mirrors. • Recalls the nature of sound waves. • Understands the requirement of a medium for sound waves to travel. • Understands the propagation and speed of sound in	Demonstrates the formation of images. Experiment to show that sound is produced by vibrating objects.	Concise Physics Part I for class IX

		different media. • Understands the concept of infrasonic, sonic and ultrasonic frequencies. • Solves numerical problems.		
October	Revision	Summative Assessment-1		
Session Two- November 2018 to March 2019				
November	Sound	• Recalls reflection of sound waves • Differentiates forced, natural vibrations and resonance. • Recalls the characteristics of sound waves.	Identifies the different types of vibrations in our daily life	Concise Physics Part II for class X
December	Refraction of light at plane surfaces	• Understands the concept of refraction of light, real and apparent depth. • Applies the concept of refraction & TIR of light in daily life.	Draws ray diagrams. Solves numerical problems.	Concise Physics Part II for class X
January	Pressure in fluids and Atmospheric Pressure Upthrust in fluids, Archimedes' principle and Floatation	• Recalls factors affecting the pressure at a point in a liquid and laws of liquid pressure • Understands Pascal's law and its applications. • Understands the concept of density, relative density, buoyancy and floatation. • Understands Archimedes' principle	Experiments related to Pascal's law. Solves numericals.	Concise Physics Part I for class IX
February	Current Electricity	• Differentiates primary cell and secondary cell. • Recalls the symbols in circuit diagrams . • Understands the concept of potential difference and resistance.	Experiment to verify Ohm's law.	Concise Physics Part I for class IX
Facilitator's name: Mrs. Renjini Sanjay, Mrs Rekha S, Mrs Annamma T. Mathew and Mrs. Chinnamma George. Textbooks: Concise Physics Part I for class IX Concise Physics Part II for class X				