

CLASS IX (2014 -2015)

SCIENCE

SPLIT- UP SYLLABUS

COURSE STRUCTURE:

Unit No.	Unit	Marks
I	Matter-Its nature and behavior	23
II	Organisation in the living world	20
III	Motion force and work	27
IV	Our Environment	06
V	Food;Food production	04
	Total	80
	Internal assessment	20
	Grand Total	100

CALENDER	CHAPTE R	CONTENTS	LAB ACTIVITIES
April 2-- 15	1 8	Matter In Oursurrounding:C haracteristics of particles of matter,States of Matter and their interconversion,Eva poration MOTION - Distance and displacement, velocity; uniform and non-uniform motion along a straight line.	Activities 1.1 to 1.13. To prform activities based on Latent Heat of Fusion and Latent heat of vapourisation. To prepare true solution,colloidal solution and suspension.
April 16 – 30	5 8	Fundamental Unit of life – Cell:Introduction, Structural organization of cell.Osmosis and diffusion,Cell organelles MOTION - acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion.	Activity 5.2 – preparing a temporary mount of leaf peels up of roots of onion or even peels of onions of different sizes.

CALENDER	CHAPTE R	CONTENTS	LAB ACTIVITIES
May 1-MAY13	15	Improvement In Food Resources-Improvement in crop yields, crop	To prepare stained temporary mount

	8	variety , crop production. MOTION - equations of motion by graphical method; elementary idea of uniform circular motion	of human cheek cells To study and perform different activities based on separating the components of the mixture
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CALENDER	CHAPTER	CONTENTS	LABORATORY ACTIVITIES
4 JULY – 15 JULY	2	Is Matter Around Us Pure?- Mixture and its type. True solution, colloidal solution, suspension. Separating the components of a mixture. Physical and chemical changes. Types of pure substances. Force and Newton's laws Newton's Laws of Motion, Action and reaction forces, Inertia of a body. REVISION FOR PT-I.	(A) To prepare (a) a mixture (b) a compound using iron filings and sulphur powder. (B) To distinguish between the mixture and compound on the basis of : Appearance, behavior towards magnet
JULY 16 – JULY 31	6 9	Tissues: Plant Tissues- Meristematic and simple permanent Organ and organ system. Force and Newton's laws Elementary idea of conservation of Momentum.	. Group Discussion: To study Tyndal effect in colloidal solution, suspension . * Properties of true solution suspension etc. Identification of parenchyma, collenchyma and sclerenchymatissues in plants, some animal tissues from prepared slides.
AUG 1-AUG 15	15 10	Improvement in food resources: Nutrient management, manure and fertilizers, irrigation and crop protection management. Animal husbandry. Gravitation universal law of gravitation, force of gravitation.	. Osmosis is a special case of diffusion. Activities to study osmosis and diffusion

CALENDER	CHAPTER	CONTENTS	LAB ACTIVITIES
AUG 16– AUG 31	7 10	Gravitation continued... Diversity in living organisms Floatation (Gravitation continued) Matter nature and behavior. Gravitation Acceleration due to gravity; mass and weight; free fall.	Study of the characteristics of Spirogyra/Agaricus, Moss/Fern, Pinus (either with male or female cone) and an angiospermic plant. Drawing and identifying features.
SEPT 1 – SEPT 15	3	Atoms and molecules, Introduction, Laws of chemical proportion. Atomic	Observing the given pictures of /charts/models of earthworm, cockroach, bony fish and bird. For each organism drawing of their

	10	and molecular masses, mole concept, valency and chemical formula. Gravitation Thrust and pressure. Archimedes' principle.	picture and recording: i) One specific feature of its phylum. ii) One adaptive feature with reference to its habitat
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AUTUMN BREAK(SEPT 30 -OCTOBER 09)

CALENDER	CHAPTER	CONTENTS	LAB ACTIVIIES
SEPT 16-SEPT 30	3	Work power and energy. Health and diseases, infectious and non infectious, their cause and manifestations, disease caused by microbes and their prevention, principles of treatment and prevention, pulse polio programmes. Work, energy and power Work done by a force, energy. REVISION FOR HALF YEARLY	Activities to study laws of chemical combination
OCT 1-OCT 31	4	Revision for Halfyearly Structure of atom, electron proton and neutrons, isotopes and isobars. Work, energy and power Power; kinetic and potential energy; law of conservation of energy.	Study of the external features of root, stem, leaf and flower of monocot and dicot plants.
NOV 1-NOV 15	14	Natural Resources. Our Environment, Physical resources: air, water, soil Biogeochemical cycles in nature: water, oxygen, carbon and nitrogen cycle. Sound Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo and SONAR. Structure of the human ear (auditory aspect only).	Practice for term II.
NOV 16- – NOV 30		Revision for PT-II	

CALENDER	CHAPTE R	CONTENTS
DEC 1 TO DEC 15	7	To write: *answer of sample questions. REVISION AND CONDUCTION OF PT - II
DEC 16 TO DEC 24	12, 7, 5, 3	REVISION FOR TERM 2

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WINTER BREAK(DEC 24 TO 4 JAN)

CALENDER	CHAPTER	CONTENTS		
JAN 1 – JAN 15	1, 2, 4, 9.	REVISION FOR TERM 2		

CALENDER	CHAPTER	CONTENTS	INDIVIDUAL PROJECT	GROUP PROJECT
JAN 16 – 31 JAN	14, 6, 8	Revision of Term 2	Problem solving assessment	*****
FEB 1 – FEB 15	16, 15	Revision of Term 2	*****	*****
FEB 16 – FEB 28	10	Revision of Term 2	*****	*****
MAR 1 – MAR 7	10, 11.	Revision of Term 2	*****	*****

SUB: SCIENCE(PHYSICS)
SPLIT UP SYLLABUS 2018-19

Month	Dates	Chapter	Topic
April	2-15	Motion	Distance and displacement, velocity; uniform and non-uniform motion along a straight line.
April	16-28	Motion	acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion,
May	1-11	Motion	equations of motion by graphical method; elementary idea of uniform circular motion
July	3-15	Force and Newton's laws	Force and Motion, Newton's Laws of Motion, Action and reaction forces, Inertia of a body, Inertia and mass. Revision for PT I
July	16-31	Force and Newton's laws	PERIODIC TEST I Momentum, Force and Acceleration. Elementary idea of conservation of Momentum.
August	1-14	Gravitation	Gravitation; universal law of gravitation, force of gravitation of the earth (gravity),
August	16-31	Gravitation	Acceleration due to gravity; mass and weight; free fall.
September	1-15	Gravitation	Thrust and pressure. Archimedes' principle, buoyancy, elementary idea of relative density.

September	16-30		Revision for half yearly HALF YEARLY
October	1-15	Work, energy and power	Work done by a force, energy, power; kinetic and
October	26-31	Work, energy and power	Potential energy; law of conservation of energy.
November	1-15	Sound	: Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo and SONAR. Structure of the human ear (auditory aspect only).