

**ACADEMIC PLANNER 2017-2018**  
**CLASS - IX**  
**SCIENCE**

MONTH/DAYS	CONTENTS	ACTIVITY/EXPERIMENT.
April 1-15		
No. of days-8		
Phy.	<b>Chapter 8 : Motion</b> : Describing motion, motion along a straight line, uniform and non uniform motion, speed with direction, rate of change of velocity	To establish the relationship between limiting friction and weight of wooden block.
Chem.	<b>Chapter 1: Matter in our surroundings</b> : Physical nature of matter, characteristics of particles of matter, state of matter	To carry out the following reactions and classify them as physical or chemical change. a) Iron with CuSO <sub>4</sub> solution in water. b) Burning of Mg in air. c) Zinc with dilute sulphuric acid d) Heating of copper sulphate e) Sodium sulphate with barium chloride in the form of their solutions in water.
Bio.	<b>Chapter 5: The fundamental unit of Life</b> : Discovery of cell, structural organization of a cell, plasma membrane, diffusion, osmosis	1) To prepare the temporary mount of onion peel. 2) To prepare temporary mount of a human cheek cells.
April 16-30		
No. of days-12		
Phy.	Chapter 8 : Motion : graphs - distance time graph, velocity time graph, equations of motion,	Graph based worksheet
Chem.	<b>Chapter 1: Matter in our surroundings: change of state of matter,</b> Effects of change of pressure,	To determine the melting point of ice.
Bio.	<b>Chapter 5: The fundamental unit of Life</b> : cell wall, nucleus, cytoplasm	To determine the mass percentage of water imbibed by raisins
May 1-15		
No. of days-9		
Phy.	<b>Chapter 8 Motion</b> : numericals based on equation of motion, circular motion	

Chem.	<b>Chapter 1: Matter in our surroundings</b> : evaporation, factors affecting evaporation revision of topics covered	To determine the boiling point of water.
Bio.	<b>Chapter 5 : Cell organelles</b> - ER,golgi apparatus, lysosomes, mitochondria, plastids, vacuoles	
<b>SUMMER VACATION</b>		
July 1-15		
No. of days-12		
Phy.	<b>Chapter 9: Force and Laws of Motion</b> : Balanced and Unbalanced forces, 1st law of motion, inertia of rest, inertia of motion and inertia of direction, inertia and mass, 2nd law of motion, momentum.	
Chem	<b>Chapter 2 : Is Matter around us pure:</b> Mixtures, types of mixtures, solutions, alloys, concentration of solutions.	
Bio.	<b>Chapter 6: Tissues:</b> Plant tissues-merismatic and permanent,	<b>Permanent Slides</b> :To identify parenchyma and sclerenchyma tissue in plants,
July 16-31		
No. of days-13		
Phy.	<b>Chapter 9: Force and laws of motion:</b> 3rd law of motion, conservation of momentum, numericals based on force, momentum and laws of conservation of momentum	To verify newton's third law of motion
Chem.	<b>Chapter 2 : Is Matter around us pure</b> : suspensions, colloidal solutions, separating the components of a mixture	1) To prepare a) true solution of sugar,salt and alum b) suspension of soil. chalk and sand c) colloid of starch in water and egg in water.
Bio.	<b>Chapter 6: Tissues:</b> animal tissues - epithelial tissue, connective issue, muscular tissue,nervous tissue	<b>Permanent Slides:</b> Striped muscle fibres and nerve cells in animals from

	<b>UNIT TEST- I 24th July to 4th August</b>	<b>SCIENCE UT-1 (28TH JULY) SYLLABUS CHAPTER-8 MOTION CHAPTER-2 MATTER IN OUR SURROUNDINGS CHAPTER-5 THE FUNDAMENTAL UNIT OF LIFE</b>
<b>August 1-15</b>		
<b>No. of days-10</b>		
<b>Phy.</b>	<b>Chapter 10 : Gravitation:</b> Universal law of gravitation, acceleration due to gravity	<b>PRACTICAL SKILL EXAM</b>
<b>Chem.</b>	<b>Chapter 2 : Is Matter around us pure:</b> separating the components of a mixture (continuation..)	To separate mixture of sand, common salt and ammonium chloride 2. To prepare a mixture and compound using iron filings and sulphur powder
<b>Bio.</b>	<b>Chapter 15- Improvement in food resources :</b> improvement in crop yields, crop variety improvement, crop production management, fertilizers, manure, irrigation, crop protection management	1) To test the presence of starch in the given food sample 2) To test the presence of metanil yellow in dal
<b>August 16-31</b>		
<b>No. of days-14</b>		
<b>Phy</b>	<b>Chapter 10 : Gravitation:</b> free fall, mass and weight	<b>NOTEBOOK ASSESSMENT</b>
<b>Chem.</b>	<b>Chapter 2 : Is Matter around us pure :</b> physical and chemical changes, elements and compounds	
<b>Bio.</b>	<b>Chapter 15</b> Animal Husbandry, cattle farming, poultry farming, fish production, bee keeping	
September 1 - 15	<b>EXAM MONTH</b>	
<b>No. of days-11</b>		
<b>Phy/Chem/Bio</b>	<b>Half Yearly examination 4 SEPT-15 SEPT. (Syllabus)</b>	

	Chap 1 - Matter in our surroundings	
	Chap 2 - Is matter around pure	
	Chap 5 - The fundamental unit of life	
	Chap 6 - Tissues	<b>8TH SEPTEMBER 2016 (SCIENCE)</b>
	Chap 8 - Motion	
	Chap 9 - Force & laws of motion	
	Chap 10- Gravitation(upto page 138)	
	Chap 15 - Improvement in food resources	
September 16- 30		
<b>No. of days-10</b>		
<b>Phy.</b>	<b>Chapter 10 : Gravitation</b> : Pressure in fluids,Buoyancy, floating and sinking	To determine the density of a solid by using a spring balance and a measuring cylinder
<b>Chem.</b>	<b>Chapter 3 : Atoms and Molecules</b> : Laws of chemical combination, Atoms, atomic mass, molecules, molecular mass, mass number	To verify the law of conservation of mass
<b>Bio.</b>	<b>Chap. 7 : Diversity in plants &amp; animals</b> : Classification, kingdom-Monera, Protista, Fungi, Plantae, Animalia, plant kingdom- Thallophyta,Bryophyta, Pteridophyta,Gymnosperms Angiosperms	1) To study the characterisic of spirogyra/Agaricus, Moss/Fern, Pinus(Either with male or female cone) and an angiospermic plant. Draw & give any two identifying features of groups they belong to. 2) To study the external features of root, stem , leaf and flower of monocot and dicot plants.
October 1-15		
<b>No. of days-9</b>		
<b>Phy.</b>	<b>Chapter 10 : Gravitation</b> : Archimedes Principle, relative density	To establish the relation between the loss in weight of a solid when fully immersed in a) tap water b) strong salty water
<b>Chem.</b>	<b>Chapter 3 : Atoms and molecules</b> : Ions, valency, Chemical formula, formula unit mass, Mole concept	
<b>Bio.</b>	<b>Chap 7 : Diversity in plants &amp; animals</b> : porifera to vertebreta, nomenclature	To observe and draw the diagram of given specimen--earthworm, cockroach and bony fish , bird

<b>October 16 - 31</b>		
<b>No. of days- 11</b>		
<b>Phy.</b>	<b>Chapter 11 : Work and energy</b> : work,work done by a force, energy, forms of energy	To observe and compare the pressure exerted by a solid iron cuboid on sand while resting on its different phases and calculate the pressure exerted in 3 different phases.
<b>Chem.</b>	<b>Chapter 4 : Structure of atom</b> : charged particle in matter, the structure of atom, subatomic particles,	
<b>Bio</b>	<b>Chapter 13 : Why do we fall ill</b> : Health and it's failure, disease and it's causes, infectious disease,acute and chronic diseases	
<b>November 1-15</b>		
<b>No. of days- 11</b>		
<b>Phy</b>	<b>Chapter 11 : Work and energy</b> : K.E., P.E, Law of conservation of energy, commercial unit of energy , power	
<b>Chem.</b>	<b>Chapter 4 : Structure of atom:</b> Thomson's model . Rutherford model, Bohr's model, distribution of electrons, revision of concept valency	
<b>Bio.</b>	<b>Chapter 13 contd....:</b> Infectious agents, means of spread, organ specific and tissue specific	To study the life cycle of mosquito.
<b>November 16-30</b>		
<b>No. of days-13</b>		
<b>Phy.</b>	<b>Chapter 12 - Sound</b> : Production of sound propagation of sound, characteristics of sound.	To verify the laws of reflection of sound
<b>Chem.</b>	<b>Chapter 4 :- Structure of atom</b> : isotopes, isobars,	
<b>Bio.</b>	<b>Chapter 14 natural resources</b> : air, movement of air, role of atmosphere in climate control, rain , air pollution, water pollution, minerals in the soil.	

<b>December 1-15</b>		
<b>No. of days-11</b>		
<b>Phy.</b>	<b>Speed of sound, reflection of sound,echo,</b>	To determine the velocity of a pulse propagated through a stretched string/slinky
<b>Chem</b>	<b>applications of isotopes,Revision</b>	
<b>Bio</b>	<b>principles of treatment, principles of prevention, pulse polio programme</b>	
	<b>UNIT TEST- 2 : 1-13th December</b>	<b>SCIENCE UT-2 ( 6 DECEMBER 2017 ) SYLLABUS CHAPTER-10 FLOATATION CHAPTER-3 ATOMS AND MOLECULES CHAPTER-7 DIVERSITY IN PLANTS AND ANIMALS</b>
<b>December 16-31</b>		
<b>No. of days-12</b>		
<b>Phy.</b>	<b>applications of reflection of sound reverberation, range of hearing , structure of human ear</b>	
<b>Chem</b>	<b>Chapter 4 :- Structure of atom: Numericals</b>	
<b>Bio</b>	<b>Chapter 14 contd.. Biogeochemical cycles, watercycle, nitrogen cycle and the carbon cycle , The green house effect, oxygen cycle, ozone layer and the probable damages</b>	<b>PRACTICAL SKILL EXAM</b>
<b>JANUARY 1- 14</b>	<b>WINTER BREAK</b>	
<b>January 15-31</b>		
<b>No. of days-13</b>		
<b>Phy</b>	<b>REVISION FOR MOCK TEST</b>	
<b>Chem.</b>	<b>REVISION FOR MOCK TEST</b>	
<b>Bio.</b>	<b>REVISION FOR MOCK TEST</b>	

		<b>NOTEBOOK ASSESSMENT</b>
<b>February 1-15</b>		
<b>No. of days-11</b>		
<b>Phy/Chem/Bio</b>	<b>REVISION</b>	
<b>February 16- 28</b>		
<b>No. of days-11</b>		
<b>Phy/Chem/Bio</b>	<b>Syllabus for ANNUAL EXAMINATION</b>	<b>(CHAPTERS 1-15 )</b>
<b>FEB- MARCH (2</b>	<b>ANNUAL EXAMINATION</b>	
	<b>SYLLABUS</b>	
<b>UT-1</b>	<b>L-2,5,8</b>	
<b>HALF YEARLY EXAM</b>	<b>L-1,2,5,6,8,9 10 (upto page 138),15</b>	
<b>UT-2</b>	<b>3,7,10(floatation)</b>	
<b>ANNUAL EXAM</b>	<b>whole book</b>	