

**D.P.S. MATHURA ROAD, NEW DELHI**  
**SUBJECT: BIOLOGY and CHEMISTRY – CLASS 7<sup>TH</sup>**  
**SESSION 2018-2019**  
**FORTNIGHTLY BREAKUP**

S. NO	Fortnight	Total no. of days	Main Unit/ Topic	SUB-TOPICS	Sub topic wise pd allotment	Total periods	PreUnit Test Assign. Date	Unit Test Date & Syllabus	HW/ CW	Activity & Project
<b>NEW SESSION BEGINS ON 2<sup>RD</sup> APRIL 2018</b>										
1	2 April to 13 April 2018	11	Chap. 1 Nutrition in Plants	Mode of nutrition in plants Photosynthesis-food making process in plants. Activity 1.1 Synthesis of plant food other than carbohydrates. Other modes of nutrition in Plants. Parasitic and insectivorous. Plants; Saprotrophs. Activity 1.2 Symbiotic Relationships. How nutrients are replenished In the soil. Exercises Chap. 1	1 1 1 2 2 1 1	11				<b>Discussion</b> 1. Impact of pollution on Photosynthesis and transpiration when stomata get clogged by pollutants and its effect on the quality of air we breathe. 2. Pleasures of observing colourful moulds grow on a food sample left in a dish for over 2 days. <b>Demonstration</b> To study that Sunlight is essential for photosynthesis .
2.	16 April to 27 April 2018	11	Chap.5 Acids Bases and Salts	Introduction 5.1 Acids and Bases. 5.2 Natural Indicators Around Us.Litmus a natural dye. (Activity 5.1) 5.2 Natural Indicators Around Us.Turmeric is another natural indicator (Activity 5.2) China rose as indicator(Activity 5.3) China rose as indicator (Activity 5.4)	1 2 2 2 2 2	11	24-4-18			<b>Activity-Individual</b> a) Testing some given samples with the help of litmus paper. For e.g. soil, soap, water from different sources, fruit juices, detergent etc. b) Making a greeting card using a natural indicator like turmeric and acid/base solution. <b>Discussion</b> Interact with the milkman and find out how to save the milk from getting sour in summers.

S. NO	Fortnight	Total no. of days	Main Unit/ Topic	SUB-TOPICS	Sub topic wise pd allotment	Total periods	PreUnit Test Assign. Date	Unit Test Date & Syllabus	HW/ CW	Activity & Project
3.	1 May to 18 May 2018	14	Chap.5 Acids Bases and Salts(contd.)	5.3 Neutralization-Activity5.5 5.4 Neutralization in everyday life. Back exercises Chap.5.	3 2 2	14		7-5-18 Syllabus ch1 & ch5 (till act 5.4)		Discussion b) Discussion on the role of Neutralization reaction in giving First Aid in case of an insect bite.
			Chap. 2 Nutrition in animals	Animal Nutrition introduction. Different ways of taking in food by Animals. Activity 2.1 Digestion in Humans and Digestive system diagram.	2 2 2 1					Discussion 1. Inculcate healthy food habits and the harms of skipping meals, eating junk food and having irregular meals. 2. The merits of giving glucose to give immediate relief to athletes experiencing fatigue.
<b>PTM on 12<sup>th</sup> May 2018</b>										
<b>SUMMER VACATION FROM 19<sup>th</sup> MAY- 1 JULY 2018</b>										
4.	2 July to 13 July 2017	10	Chap. 2 Nutrition in Animals. (contd.)	Digestion in the mouth and buccal cavity. Activity2.2 Types of teeth, their Functions and their Diagrams. Activity 2.3. Effect of saliva on starch. Activity 2.4 Regions of taste on the tongue. The food pipe/ esophagus and its role. Digestion in the stomach. Digestion in the small intestine. Absorption of Digested food in the small intestine. Large intestine and its role. Digestion in grass eating animals. Feeding And digestion in Amoeba. Exercises	1 1 1 1 1 1 1 1 1 1 1 1 1	10				Hands on Activity: To show the effect of saliva on starch.

S. NO	Fortnight	Total no. of days	Main Unit/ Topic	SUB-TOPICS	Sub topic wise pd allotment	Total periods	Pre UTA Date	Unit Test Date & Syllabus	HW/ CW	Activity & Project
5	16 July to 31 July 2018	13	Chap. 3 Fibre to Fabric.	Animal fibres—Wool Activity 3.1 Animals that Yield wool. Activity 3.2 From fibres to Wool. Processing fibres into wool. B) Silk- Life history of silk moth and Diagram. Activities 3.5, 3.6 3.7 From cocoon to silk Exercises Chap.3	1 2 2 2 2 2	13				<b>Creative Activity:</b> on animal fibres. <b>Discussion:</b> Sensitizing children to the process of silk production that involves killing of many silkworms and encouraging them to promote artificial silk or alternate methods of producing silk.
6.	1 August - 18 August 2018	13	Chap. 7 Weather Climate and Adapt-ations of Animals to climate.	Revision  Very brief introduction of weather and climate. Adaptations of animals to a) The polar regions b) The tropical rain forests. Exercises.	1 1 2	13				<b>GROUP ACT.</b> Collect weather reports for the last week of July and 1st week of Aug. from the news paper. Discuss them and try to determine the type of condition prevailing. <b>Discussion</b> Effect of pollution and global warming on the climate.
			Chap. 9 Soil	Soil teeming with life. Activity 9.1 Soil profile. Activity 9.2. Soil types. Activity 9.3 Properties of soil – 1. Percolation rate of water in soil --Activity 9.4 2.Moisture in soil --Activity 9.5 Absorption of water by soil-- Activity 9.6. Soil and crops.	2 1 2 1 1 1 1					<b>Discussion</b> Interview the gardener how he regulates the soil chemistry (acidic or basic nature). <b>Demonstration:</b> Layers of soil. <b>Demonstration:</b> To study rate Of percolation of different soils and their water holding capacities.

S. NO	Fortnight	Total no. of days	Main Unit/ Topic	SUB-TOPICS	Sub topic wise pd allotment	Total periods	PUTA Date	Unit Test Date & Syllabus	HW/ CW	Activity & Project			
7.	20 Aug to 4 Sept. 2018	10	Chap. 9 Soil (contd.)	Exercises Chap.9.	2	10							
			Chap 16 Water A Precious Resource	Introduction Activity – 16.1 16.1 How much water is available? 16.2 Forms of water(Activity16.3)	1 1 1						<b>Activity</b> 1. Creating a logo for conservation of water. 2. Creating symbols for depicting water scarcity. <b>Discussion</b> 1. Designing posters to depict the importance of water resources.2. Discuss the impact of boring on the water table during installation of hand pump.3.Significance of Different methods of rain water harvesting (both traditional and modern). 4.Exploring the areas and regions in and around you which have been able to overcome the natural scarcity of water through successful experiments.(Jaisalmer). <b>Debate on:</b> Is it right to capture animals and have them performing in the circus and streets and kill them for their feathers, fur or skin?		
			Chap 17 Forests; our lifeline	Water Cycle and Diagram of water cycle. Sources of water in villages and cities. 16.3 Groundwater as an important source of water. Diagram of Ground water and water table. 16.4 Depletion of water table. 16.5 Distribution of water 16.6 Water management. 16.7 What role you can play16.8 Effect of water scarcity on plants. Back Exercises. Explanation, important terms . <b>Worksheets prepared on the chapter.</b>	1 1 1 1 1 1 1 1								
<b>COMPLETION OF SYLLABUS ON 4 SEPT. 2018</b>													
<b>Course completion certificate to be submitted by Reps and HODs on 6 Sept 2018</b>													
<b>REVISION 6 to 11 SEPT. (5 days)</b>													
<b>MID TERMEXAMS 12 SEPT. TO 22 SEPT. 2018</b>													
<b>PTM 13 OCT 2018</b>													
<b>DUSSHERA BREAK 18 OCT TO 21 OCT 2018</b>													
<b>DIWALI BREAK FROM 5 NOV. TO 11 NOV. 2018</b>													

S. NO	Fortnight	Total no. of days	Main Unit/ Topic	SUB-TOPICS	Sub topic wise pd allotment	Total periods	PreUnit TA Date	Unit Test Date & Syllabus	HW/ CW	Activity & Project
8.	24 Sept to 17 Oct 2018	17	Chap. 10 Respiration in Organisms.	Why do we respire? Breathing. Activities 10.1, 10.2, 10.3 How do we breathe? Activity 10.4, Activity 10.5. What do we breathe out? Activity 10.6 Breathing in other animals. Breathing under water. Do plants also respire? Exercises	3 2 1 2 1 2 2 2 2	17				<b>Discussion:</b> 1. Merits of active participation in sports on one's physical Fitness. 2. Emphasis on the need to adopt a correct posture for normal breathing.
9.	22 Oct.to 3 Nov. 2018	10	Chap. 6 Physical & Chemical Changes.	Physical Changes— Activity 6.1, 6.2, 6.3,6.4,6.5 Characteristics of Physical changes. Chemical changes -- Burning of magnesium ribbon. (And demo). Activity 6.7 Reaction of copper sulphate with iron (demo). Activity 6.8 Reaction of vinegar and baking soda. (And demo).	2 2 3 3	10				<b>Discussion:</b> 3. Significance of banning smoking in public places and the need to respect it. <b>DEMONSTRATION (On any 2)</b> 1. Burning of a magnesium ribbon. 2. Reaction of copper sulphate with iron. 3. Reaction of vinegar and baking soda.
10.	12 Nov. to 30 Nov 2018	13	Chap. 6 Physical & Chemical Changes. (contd).	Reaction of limewater with CO <sub>2</sub> Characteristics of chemical Changes and examples. 6.3 Rusting of Iron. 6.4 Crystallization (Activity 6.9) Exercises.	1 2 3 3 2	13				<b>Discussion-</b> 1. Common chemical reactions involved in everyday activities like cooking, burning incense stick etc. 2. On use of aluminium utensils instead of iron vessels to minimize corrosion in coastal areas.3.Prepare crystals of alum at home.(page 67 NCERT).
11.	3 Dec to 15 Dec 2018	11	Chap. 11 Transportation in Animals and Plants	Circulatory System a) Blood b) Blood vessels Activity 11.1 c) Heart	2 2 3 2	11				<b>Hands On Activity</b> To feel our own pulse and heart beat and find out if there is any relation between them.

				d) Heart-beat. Activity11.2	2				
12.	17 Dec to 29 Dec. 2018	10	<b>Chap. 11</b> Transportation in Animals and Plants. (contd.)	Excretion in Animals. Excretory system in humans:- Diagrams, Organs and their functions. Transport of substances in Plants. a) Transport of water and minerals Activity 11.3 b) Transpiration.	2 2 2 2 2	10	18-12-18		<b>Demonstration</b> To observe osmosis in potato / transpiration in plants.
<b>WINTER BREAK 31 DEC – 9 JAN 2019</b>									
13.	10 Jan. to 25 Jan. 2019	12	<b>Chap. 11</b> Transportation in Animals and Plants  <b>Chap-12</b> Reproduction in Plants.	Back Exercises. Revision  Modes of reproduction.  Types of asexual Reproduction. a) Vegetative Propagation Activity 12.1, 12.2 <b>b) Budding</b> a) Fragmentation. d) Spore formation. Sexual reproduction-- Activity 12.4.Pollination	2 2 2 2 2	12		<b>14-1-19</b> Syllabus CH-11 CH-6	<b>Group Activity</b> To study modes of asexual reproduction in potato, Onion etc <b>Discussion</b> 1.Merits of growing seedless varieties, high yielding varieties through artificial methods like vegetative propagation /hybridization
14.	28 Jan to 8 Feb 2019	10	<b>Chap-12</b> Reproduction in Plants. (contd.)  <b>Chap-18</b> Waste Water Story.	Sexual reproduction-- Fertilization Fruit and seed formation Seed dispersal Exercises.  18.1 Water our Lifeline (Activity 18.1) 18.2 What is Sewage? (Activity 18.2) Components of sewage.	1 1 1 2  1 1	10			<b>PROJECT</b> Individual -- Waste water treatment plant. Sensitize the children to

				18.3 Water Freshens Up- An Eventful Journey (Activities 18.3,18.4)	1 2					dispose waste and waste water properly
15.	11 Feb to 20 Feb 2019	9	<b>Chap-18</b> Waste Water Story. (contd.)	18.4 Waste Water Treatment Plant (To get clarified water from waste water). Treatment of Sludge. Role of anaerobic bacteria. (To get clean water from clarified water) Treatment of Sludge. Role of anaerobic bacteria. To get clean water from clarified water) Treatment of Activated Sludge. Become an Active citizen. 18.6 Better House Keeping Practices. 18.7 Sanitation and Disease. 18.8 Alternative arrangement For Sewage Disposal 8.9 Sanitation at Public Places. Back Exercises.	2  2  1 1 1 2	9				<b>Discussion</b> 1. Recall the excellent drainage system of the Harrappan and Mohenjo –Daro civilizations. 2. Sensitize the children to dispose waste properly and not clogging the drains. 3. Installation of Vermi processing and bio-toilets in railway coaches. 4. Discuss the role of contaminated water in spread of epidemics.
<b>COMPLETION OF SYLLABUS BY 20 FEB. 2019</b>										
<b>Course completion certificate to be submitted by Reps and HODs on 20 Feb 2019</b>										
<b>REVISION 21 FEB.2019-- 28 Feb 2019</b>										
<b>ANNUAL EXAMS 1 March.2019 TO 15<sup>th</sup> MARCH 2019</b>										
<b>Syllabus---Chapters. 6, 10, 11, 12, , 18</b>										
<b>PTM on 29 March 2019 FOR CLASS VI &amp; VII</b>										
<b>PTM on 30 March 2019 FOR CLASS VIII</b>										
<b>NEW SESSION TO BEGIN ON 1 APRIL 2019</b>										