

**ARMY PUBLIC SCHOOL GOPALPUR**

**SPLIT UP SYLLABUS (2020-21)**

**CLASS: VIII**

**SUBJECT: SCIENCE**

**MONTH : APRIL**

**NO. OF DAYS: 10**

**NO. OF PERIODS: 12**

**TOPIC : Crop production & management Chapt-1**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Agricultural practice   -Preparation of soil -methods of irrigation -weed control	-observation cum discussion.	-text book -activity book	-Students will be able to see the agricultural tools -Students will be motivated to visit crop field	-They will learn the use of pesticides.  *-They will learn how to store the food grains.

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**SPLIT UP SYLLABUS (2020-21)**

**CLASS: VIII**

**SUBJECT: SCIENCE**

**MONTH : APRIL**  
**NO. OF PERIODS:15**

**NO. OF DAYS:12**

**TOPIC – Microorganisms Chapt-2**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
MICRO ORGANISMS	Observation cum discussion	Types of microorganisms -friendly microorganisms -commercial & medicinal use of microorganisms -harmful effect of microorganisms -food preservation -nitrogen fixation	Students can be taken to a bakery factory  Usage of preservatives for storage of food items will be discussed on the basis of the ingredients given On packaged food items	They will know the composition of antibiotics. They will know the types of plant diseases.

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**CLASS:VIII SUBJECT: SCIENCE**

**MONTH : JUNE**

**NO. OF DAYS:08**

**NO. OF PERIODS: 09**

**TOPIC :Chapt-03 : Synthetic fibres & plastics**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
-Synthetic fibres - Characteristics of synthetic fibres -Plastics -characteristics of plastics -plastics impacts on environment	Observation cum discussion	NCERT material AWES material	Students will take care of synthetic cloths near the fire . -Students will be taught the use of plastic materials	They will learn the 4-R principles which Develops habits of ecofriendly.

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**SPLIT UP SYLLABUS (2020-21)**

**CLASS:VIII SUBJECT: SCIENCE**

**MONTH : JULY**

**NO. OF DAYS:10**

**NO. OF PERIODS:12**

<b>TOPIC :Ln-04 : Metals &amp; non-metals</b>				
<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIAL S/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
-Physical properties of metals & nonmetals -Chemical properties of metals & nonmetals -uses of metals & non metals	Demonstration cum discussion	NCERT book -AWES materials	<ul style="list-style-type: none"><li>• Students will be encouraged to know the name of chemicals used at home</li></ul>	They will learn the uses of metals & nonmetals i in our day today life

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**CLASS: VIII SUBJECT: SCIENCE**

**MONTH : JULY**

**NO. OF DAYS:07**

**NO. OF PERIODS:08**

**TOPIC :Ln-05 : Coal & Petroleum**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
-Exhaustible & Inexhaustible natural resources -Components of coal -Petroleum & its refining -Natural gases	Lecture cum discussion method	NCERT textbook -AWES material	The use of coal & petroleum  Will be taught.	-Students will learn the use of petrochemicals -They will also learn the judicious use of petroleum.

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**CLASS:VIII**

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**MONTH : JULY**

**NO. OF DAYS:07**

**NO. OF PERIODS:09**

**TOPIC :Ln-06 : Combustion & flame**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Combustion -Factors of combustion -Types of combustion -Flame -Fuel -Efficiency of fuel	Observation cum discussion	NCERT book -AWES book	The teacher will cooperate the child to know the use of fire extinguisher at home.	-They will learn the efficiency of an engine -They will learn how to check global warming & greenhouse effect.

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**SPLIT UP SYLLABUS (2020-21)**

**CLASS: VIII SUBJECT: SCIENCE**

**MONTH : AUGUST**

**NO. OF DAYS: 12**

**NO. OF PERIODS: 13**

**TOPIC :Ln-07 : Conservation of plants & animals**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Deforestation& causes -consequences of deforestation -conservation of forest & wild life -Biosphere reserve -Flora & fauna --Endemic species -Wild life sanctuary -National park -Red data book -Migration -Recycling of paper -Reforestation	Lecture cum discussion method	NCERT book -AWES book	-The teacher should encourage the child to know the wild life sanctuaries. -the parent should accompany the child to visit national park also.	They should gain knowledge on red data book. -They should be motivated in the plantation of trees. -They will be motivated to take care of animals.

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**CLASS:VIII SUBJECT: SCIENCE**

**MONTH : AUGUST**

**NO. OF DAYS:12**

**NO. OF PERIODS: 13**

**Topic-CELL STRUCTURE & FUNCTION**

**In-8**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Discovery of the cell -cell & number -shape of cells -size of the cell -cell structure & function -parts of the cells -comparison of plant & animal cell	Demonstration method. Observation cum discussion method	NCERT book AWES material	Teacher will motivate the student in knowing different types of egg cells.	They will gain the knowledge on plant & animal cell by activity method. -They will differentiate between plant & animal cell



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**SPLIT UP SYLLABUS (2020-21)**

**CLASS:VIII SUBJECT: SCIENCE**

**MONTH : SEPTEMBER**

**NO. OF DAYS:07**

**NO.OF PERIODS :08**

**TOPIC :Ln-11 : FORCE &PRESSURE**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Force-pull & push -force due to interaction -Exploring force -Force can change the state of motion -Force can change the shape of an object - Contact force -Noncontact force Pressure -atmospheric pressure -pressure exerted by liquid & gas	Demonstration cum discussion	NCERT book -AWES material	Teacher will motivate the child to do various activities with the help of their parents.	Through activity the teacher will motivate the students on force & pressure.

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**CLASS: VIII      SUBJECT: SCIENCE**

**MONTH : SEPTEMBER**

**NO. OF DAYS: 07**

**NO. OF PERIODS:08**

**TOPIC :Ln-12 : FRICTION**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Force of friction -factors affecting friction -friction a necessary evil -increasing & reducing friction -wheels reduce friction -fluid friction	Demonstration cum discussion	NCERT book -AWES material	The child will learn the friction as a force in different situations.	Through activity the teacher will motivate the student on friction.

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**SPLIT UP SYLLABUS (2020-21)**

**CLASS: VIII SUBJECT: SCIENCE****NO. OF DAYS: 07****MONTH :OCTOBER****NO. OF PERIODS: 08****TOPIC :Ln-13 :sound**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
-Sound by vibration of object -sound produced by human -sound needs a medium -structure of ear -terms related to sound -audible & in audible sound -noise pollution.	Demonstration cum discussion	NCERT book -AWES material	The parents will teach them how to take care of ears.	They will learn how to apply their knowledge in everyday life.

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**CLASS:VIII SUBJECT: SCIENCE**

**MONTH : OCTOBER**

**NO. OF DAYS: 05**

**NO. OF PERIODS: 06**

**TOPIC :Ln-14 : CHEMICAL EFFECT OF CURRENT**

<b>SUB- TOPICS</b>	<b>METHODO LOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
*Liquid conducts current -chemical effect of current -Electroplating	❖ Demonstration	<ul style="list-style-type: none"><li>• NCERT book</li><li>• AWES material</li></ul>	<ul style="list-style-type: none"><li>• Teacher will motivate by providing the materials required for activity.</li></ul>	<ul style="list-style-type: none"><li>• They will learn how the electroplating is made in day today life.</li><li>• They will learn the conductor and insulator.</li></ul>

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**CLASS: VIII SUBJECT: SCIENCE**

**MONTH : NOVEMBER**

**NO. OF DAYS:07**

**NO. OF PERIODS:08**

<b>TOPIC :Ln-16 : LIGHT</b>				
<b>SUB- TOPICS</b>	<b>METHODOL OGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
*Reflection Laws of reflection Structure and function of eye	❖ Demon stration	<ul style="list-style-type: none"><li>• NCERT book</li><li>• AWES material</li></ul>	<ul style="list-style-type: none"><li>• Students will be motivated to take care of their eyes</li></ul>	Students will understand how light reflects from various surfaces. Understand the structure and function of eyes.

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**MONTH : NOVEMBER**

**NO. OF DAYS:07**

**NO .OF PERIODS:08**

**CHAPTER- 17-Solarsystem**

<b>SUB-TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Moon Phases of moon The stars Constellations The planets Members of solar system Artificial satellites	❖ Observ ation cum discuss ion method	<ul style="list-style-type: none"><li>• NCERT book</li><li>• AWES material</li></ul>	<ul style="list-style-type: none"><li>• Teacher will motivate by providing the opportunity to visit to the planetarium .</li></ul>	<ul style="list-style-type: none"><li>• They will learn how the artificial satellites function.</li><li>• They will know the applications of artificial satellites.</li></ul>

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**MONTH : NOVEMBER**

**NO. OF DAYS:07**

**NO. OF PERIODS:08**

**CHAPTER-18 –Pollution of water & air.**

<b>SUB-TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Air pollution Causes of air pollution -Case study – The Tajmahal Green house effect Water pollution Ganga action plan How to get potable water	❖ Demonstration Discussion	<ul style="list-style-type: none"><li>• NCERT book</li><li>• AWES material</li></ul>	<ul style="list-style-type: none"><li>• Teacher will motivate how to keep surrounding clean.</li></ul>	<ul style="list-style-type: none"><li>• They will learn how to keep healthy environment</li><li>• How to get clean water at home.</li></ul>

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**CLASS: VIII SUBJECT: SCIENCE**

**MONTH : DECEMBER**

**NO. OF DAYS: 07**

**NO. OF PERIODS: 08**

**TOPIC :Ln-10 : Reaching the age of adolescence**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Adolescence & puberty Changes at puberty Secondary sexual characters Role of hormones Reproductive phases of life in humans Determination of sex Role of hormones in completing the life history of insects & frogs.	Discussion method	NCERT BOOK AWES material	Teacher should guide how to take care of health during adolescence period. Parents can help their wards regarding this.	They should be aware of nutrition during adolescence period.



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**MONTH : December**

**NO. OF DAYS:07**

**NO. OF PERIODS:08**

**TOPIC :Ln-09 : Reproduction in animals**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Mode of reproduction Reproductive organs Sexual reproduction Male & female reproductive organs Fertilisation & its type Development of embryo Asexual reproduction	Explanation & discussion method	NCERT BOOK AWES BOOK	Teacher will counsel the students during adolescent period.	They will gain the knowledge on reproduction.

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**CLASS:VIII SUBJECT: SCIENCE**

**NUMBER OF DAYS:07**

**MONTH: JANUARY**

**PERIODS:08**

**TOPIC :Ln-15 : Some natural phenomena**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
Lightning Charging by rubbing Types of charges & interaction. Transfer of charge Story of Lightning Lightning safety Lightning conductor Earthquake Causes of earthquake	Discussion method Explanation	NCERT BOOK AWES BOOK	Teacher will teach them on earthquake. Students should take care during lightning .	They should learn how to take safety during cyclone, earth quake & lightning.

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**SPLIT UP SYLLABUS (2020-21)**  
**CLASS:VIII SUBJECT: SCIENCE**

**MONTH : FEB&MARCH**

**NO.OF DAYS:**

**NO.OF PERIODS:**

<b>SUB- TOPICS</b>	<b>METHODOLOGY</b>	<b>TEACHING LEARNING MATERIALS/AIDS</b>	<b>INTERFACE</b>	<b>LEARNING OUTCOME</b>
REVISION AND ANNUAL EXAMINATION				

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