

ACADEMIC WORK PLAN

for Home Learning 2021 – 2022

MIDDLE SCHOOLS

SCIENCE



**DIRECTORATE OF
STATE COUNCIL OF EDUCATIONAL RESEARCH & TRAINING
MIZORAM:AIZAWL**

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THUHMA

Kum 2021 – 2022 academic session chu COVID-19 pandemic avangin zirna inte hawn theih lohin a la awm mek zel a. School kai theih ni lo mahse, zir lai naupang te tan leh kha zir chawlh ngawt theih a ni lo a, a ðha ber bawk hek lo ang. Chuvangin, an zir laite an bahlah lutuk loh nan theih ang ang a zir chhonzawm dan tur kawng zirtirtute leh nu leh pate pawhin kan ngaihtuah a ðul ta a ni.

Zir laibua chapter tina hian **zir chhuah tur bituk (Learning Outcomes)** a awm vek a. Chu zir chhuah tur bituk chu zir laiten an zir chhuah ngei a pawimawh ber a, chu chu school an kal emaw an kal thei lo a nih pawhin an thiam chhuah ngei theihna tura hmalak chu zir nain a tum a ni.

Hemi atana zirtirtu, nu leh pa leh naupangte kawng kawhmuhtu tur **Academic Work Plan for Home Learning-2021 – 2022** chu buatsaih a ni a. He Work Plan hian subject tin leh chapter tinte hawl kim vekin, naupangten anmahni ngei che chhuaka an tih tur activities te, project work te pawh tarlan vek a ni. Heng tih tur ruahmante hi a ðhen chu mahni in chhunga tih theih mai, a ðhen chu pawn chhuak a tih ngai, a ðhen chu ðhianta nena a huhova tih ngai chite an ni hlawm a. Kan hun tawn ang zel leh kan awmna hmun azira mahni remhriatna hmanga heng tih turte hi zirtirtuten siamrem te pawh a ngai thei ang. A pawimawh ber chu zir laiten zir chhuah tur bituk hi an zir chhuah kha a nih avangin he Work Plan ang chiah chiah tih kher kha tum ber tur a ni lo tih hre tlang ila, a kawng inkawhmuhna a nih ang takin hmang thiam ila kan sawtpui ngei pawh a rinawm.

He **Academic Work Plan for Home Learning-2021 – 2022** hi ðangkai taka hman a nih theih nan a hmangtu zawng zawngte duhsakna ka hlan a, a lo ðhat leh zualna atana rawnate pawh a awm a nih chuan lawm takin kan pawm ang.

Aizawl
16th June, 2021


(**LALDAWNGLIANI CHAWNGTHU**)
Director, SCERT
Mizoram, Aizawl

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KAIHHRUAINA

1. Academic Work Plan for Home Learning 2021 – 2022 hi zirtirtuten an zirtirnaa puitu tura siam a ni.
2. Textbook aṭanga duan a ni a. Zirlaibua chapter tinte aṭanga zir chhuah tur bituk (Learning Outcomes), zirtir dan tur, naupangten an tih turte leh chapter tinte zir hun tur bithliah a ni.
3. Zirtirtute puitu tura duan a nih angin, zirtirtu chuan naupangte zirtirna atan an hmang ṭangkaiin an zawm tur a ni.
4. Tih turte (exercise) te hi naupangten chapter an zir zawh apiangin an ti zel ang a, Project Work leh Activities-te hi tihtir ngei tur a ni a, chu chuan mark a keng tel ngei bawk tur a ni.
5. CCE Guidelines mila buatsaih a nih angin naupangte thlen chin hre turin zirtirtuten an vil reng tur a ni a, Unit/Chapter pahnih (2) zel an zir zawhah naupangte chu test pek tur a ni. Test-na tur hi zirtirtuin a buatsaih lawk ang. Heng Test aṭang hian naupangte zirlai hrut nawnpui a ngaih leh ngaih loh zirtirtuin a hre thei dawn a ni.
6. Naupang nu leh pate (an chenpuite) chu an fate lehkha zirna leh hmasawna kawnga mawhphurtu pawimawh tak an nih thu leh hemi Work Plan-te hmang hian an fate lo enpui ṭhin tura beisei an ni tih hriattir tur a ni.
7. Academic Work Plan for Home Learning 2021 – 2022 bu chungu thu awm te:
 - Unit, Chapter leh Chapter thupui
 - Learning Outcomes (Zir chhuah tur bitukte)
 - Zirtirna kalpui dan tur (Pedagogical process)
 - Test kalpui dan tur (Oral Test & Written Test)
 - Assignment/Project tih dan turte
 - Activities tih dan turte

- Written Test – ziaka chhan tur zawhnate
 - Ni pek zat – chapter zir hun chung tur bituk.
8. Zirtirtu chuan Academic Work Plan for Home Learning 2021 – 2022 nih phung leh a hman dan tur hi naupang chungte hnenah an hrilhiah tur a ni.

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SCIENCE

CLASS-VI

Chapter	Learning Outcomes	Pedagogical Process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
1	Food: where does it come from?	1. Identifies organisms, 2. Differentiates organisms, 3. Classifies organisms based on observable properties 4. Conducts simple investigations to seek answers to queries	1. Activity 6 & 7 2. Activity 4. Table 1.4 3. Suggested projects and activities 3	1. Visit a vegetable market & make a list of cereals, redispases, oil, vegetables, spices, beverages, sugar and meat.	1. Make a list of food items and its sources taken by your family.		Page 6 & 7. All evaluations	10
2	Components of food.	1. Relates processes and phenomenon with causes, e.g., deficiency diseases with diet 2. Conducts simple investigations to seek answers to queries		1. Write reports of basic components of food with their sources. 2. 1. Page 17- suggested project and activities no 1.	1. Visit a hospital or Health centre to study deficiency diseases and make a list.	1. Activity 2. Tests for Starch, Proteins and Fats	Page 17 all evaluations.	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	No. of days allotted	
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
3	Fibre to fabric	1. Differentiates materials, such as fibre and yarn; on the basis of their properties 2. Conducts simple investigations to seek answers to queries	1. Activity 5. Fig 3.12. Weaving with paper strips 2. Activity 3 splitting of yarn & 4 Making cotton yarn	1. Activity 1. Fig 3.2. Collecting of fabrics.	Page 24 all evaluations.	13	
4	Sorting materials into groups.	1. Identifies materials. 2. Differentiates materials. 3. Classifies materials based on observable properties. 4. Conducts simple investigations to seek answers to queries	1. Activity 2 table 4.2. different types of objects that are made from the same material.	1. Activity 1 table 4.1. Objects and the material they are made of. 1. Activity 5 table 4.4. Solubility of some common liquids in water	1. Activity 4 of Page 29 with the Teacher's guidance.	Page 33-34 All evaluations.	13
5	Separation of substance	1. Differentiates materials. 2. Classifies materials based on observable	1. Activity 1. Separation process 2. Activity 5.	1. Activity 2. Hand picking 2. Activity 3. Winnowing	1. Activity 4. Sedimentation, Decantation & Filtration	Page 44-45 all evaluations.	14

Chapter	Learning Outcomes	Pedagogical Process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
	properties. 3. Conducts simple investigations to seek answers to queries. 4. Applies learning of scientific concepts in day-to-day life, e.g separating materials.	Filtration process 3. Activity 8. Dissolving salt in water		3. Activity 6. Evaporation. 4. Activity 10. Dissolving salt and sugar in water Table 5.2				
6	Changes around us	1.conducts simple investigations to seek answers to queries, eg: Can all physical changes be reversed? 2. Classifies materials based on observable properties. Eg. changes as can be reversed and cannot be reversed	1. Activity 7 burning of candle. 2. Suggested project and activities 2.	1. Table 6.1 reversible and irreversible change	1. Activity 1 & 4 Blowing a balloon 2. Activity 2. Making a paper plane	Page 51 all evaluations.	10	
7	Getting to know plants.	1. Identifies organisms, 2. Draws labelled diagrams e.g., parts of		1. Go to a field and find out the difference between	1. Page 65 suggested project and activities 2 without teacher's	1. Dissect simple flower, separate and count the	Page 64 All evaluations.	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	No. of days allotted	
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
	flowers 3. Classifies organisms based on observable properties e.g., plants as herbs, shrubs, trees, creeper, climbers; 4. Conducts simple investigations to seek answers to queries,		(1) herbs, shrubs and trees (2) tap root, and fibrous root, and make a record.	help.	number of sepals, petals, stamens and pistil. Make a record.		
8	Body movement	1. Relates processes and phenomenon with causes. 2. Explains processes and phenomenon.	1. Table 8.1 Animal movement 2. Table 8.1 body movement 3. Activity 2 & 3 study of joints	1. Activity 5 Study of earthworm. 2. Activity 6 Study of snail 3. Activity 7 study of cockroach	1. Activity 8 making a paper boat	Page 77 all evaluations.	12
9	The living organisms and their surroundings.	1. Identifies organisms 2. Differentiates organisms,	1. Collect pictures of different kinds of animals and	1. Visit a nearby forest to study the biotic and	1. Suggested projects and activities 5	1. Activity 2 of Page 82 with teacher's guidance.	Page 93 All evaluations 10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
		3. Classifies organisms and processes based on observable properties 4. Conducts simple investigations to seek answers to queries 5. Relates processes and phenomenon with causes	plants living in habitats like ocean grasslands, desert, mountain, ponds & lakes and paste in your habitat album.	abiotic components of its surroundings. Make a note of it.				
10	Motion and measurement of distance	1. Measures physical quantities and expresses in SI units, e.g., length, etc.	1. Activity 4 measuring length of curved line 2. Activity 5 table 10.4 objects in rest and motion		1. Activity 1 & 2 measurement of room and table (at home) 2. Activity 3 Measurement of height (family member)	Page 106 all evaluations.	13	
11	Light, Shadows and reflections	1. Explains processes and phenomenon, e.g., formation of shadows; reflection of light from plane mirror; etc.	1. Activity 1 table 11.1 2. Activity 6 light travels in a straight line		1. Activity 2 & 3 Shadow of an object 2. Activity 5 pin hole camera	1. Activity 7 & 8 reflection of light	Page 113-114 all evaluations.	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
12	Electricity and circuits.	1. Relates processes and phenomenon with causes. 2. Constructs models using materials from surroundings and explains their working. 3. Applies learning of scientific concepts in day-to-day life.	1. Activity 2 Connecting bulb with a battery	1. Collect and note five materials each of conductors and insulators around your school compound.	1. Activity 4 of this chapter with the help of teacher.		Page 123-124 All evaluations	13
13	Fun with magnets	1. Conducts simple investigations to seek answers to queries. 2. Relates processes and phenomenon with causes. 3. Explains processes and phenomenon.		1. Some suggested activities No. 3(pg.135)	1. Activity 5 suspended bar magnet 2. Activity 6 compass in a cup. 3. Fig 13.11 Making a magnet	1. Make your own magnet using a given bar magnet as explained in 13.1.	Page 134-135 All evaluations	12
14	Water	1. Applies learning of scientific concepts in day-to-day life 2. Makes efforts to			1. Activity 1 table 14.1 Estimation of water used in a	1. Activity 2 Evaporation of water 2. Activity 3	Page 145-146 all evaluations.	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
		protect environment,			day	Condensation of water		
15	Air around us	1. Relates processes and phenomenon with causes, 2. Explains processes and phenomenon 3. Applies learning of scientific concepts in day-to-day life 4. Makes efforts to protect environment	1. Activity 1 making of simple virnep 2. Activity 2 properties of air 3. Activity 3 properties of oxygen		1. Activity 5 boiling of water	1. Activity 6 presence of air in soil	Page 153-154 all evaluations.	10
16	Garbage in, garbage out.	1. Makes efforts to protect environment 2. Applies learning of scientific concepts in day-to-day life	1. With your teacher's guidance; make a school Compost pit and prepare a detailed report.		1. Visit garbage dumping ground of your locality and make a list of most garbage materials thrown.		Page 164 all evaluations.	10

CLASS-VII

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
1	Nutrition in Plants	<ul style="list-style-type: none"> Identifies organisms Differentiates organisms Classifies organisms based on characteristics, Conducts simple investigations to seek answers to queries. 	1. Activity: 1.1 & 1.2. Collection of leaves	1. Extended Learning 1-2 (Pg 10)	1. Extended Learning 3 (Pg 10)	1. Activity 1.2. Fungi growing on bread	Pg 9-10 All Evaluations	10
2	Nutrition in Animals	<ul style="list-style-type: none"> Differentiates organisms such as, digestion in different organisms Classifies organisms based on characteristics, Conducts simple investigations to 	1. Activity: 2.1 – 2.2	1. Extended Learning 1-3 (Pg 22-23)	1. Draw Fig.2.2 Human digestive system 2. Draw fig 2.3 Arrangement of teeth.	1. Activity: 2.3 – 2.4	Pg 20-21 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted	
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
	<p>seek answers to queries,</p> <ul style="list-style-type: none"> • Draws labelled diagrams/ flow charts • Relates processes and phenomena with causes, • Explains processes and phenomena, 						
3	Fibre to fabric	<ul style="list-style-type: none"> • Draws labelled diagrams/ flow charts • Identifies materials such as animal fibres • Explains processes and phenomena, e.g., modes of transfer of heat 	<p>1. Activity 3.1 Animal geographical habitat.</p>	<p>1. Draw Fig. 3.9 Draw life history of silk moth</p>	<p>1. Activity 3.2 animal scrap book 2. Fig.3.9 Draw life history of silk moth</p>	<p>Pg.32-33 all evaluations</p>	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted	
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
4	Heat	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries Explains processes and phenomena, e.g., modes of transfer of heat 	1. Activity 4.2 reading a thermometer 2. Activity 4.6 flow of heat through a metal strip	1. Activity 4.3 measuring body temperature	1. Activity 4.1 feeling water in three mugs 2. Activity 4.4 measuring temperature of water with a laboratory thermometer	Pg.45-46 all evaluations	10
5	Acid, base and salts	<ul style="list-style-type: none"> Identifies materials. Differentiates materials. Classifies materials based on observable properties. Conducts simple investigations to seek answers to queries. 	1. Complete table 5.1	1. Activity 5.1 2. Activity 5.2 3. Activity 5.3	1. Activity 5.4 2. Activity 5.5	Page 56-57 All evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted	
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
6	Physical and chemical changes	<ul style="list-style-type: none"> Classifies materials based on properties/ characteristics, e.g., physical and chemical changes. Conducts simple investigations to seek answers to queries. 	1. Activity 6.2-6.5 example of physical changes	1. Activity 6.1 physical changes paper cutting	1. Activity 6.6 burning of magnesium ribbon 2. Activity 6.7 & 6.8 chemical reaction	Pg.65-66 all evaluations	10
7	Weather, Climate & Adaptation of Animals to Climate	<ul style="list-style-type: none"> Relates processes and phenomena with causes. Explains processes and phenomena. Draws labelled diagrams. Measures and calculates. Plots and interprets graphs 	1. Activity: 7.1 & 7.2	1. Extended Learning 1-2 (Pg 79)	1. Activity 7.2	Pg 77-79 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
8	Winds, storms and cyclones	<ul style="list-style-type: none"> Relates processes and phenomena with causes, e.g., wind speed with air pressure Constructs models using materials from surroundings and explains their working, e.g., anemometer 	1. Activity 8.2 blowing into the bottle	1. Activity 8.4 can you blow and lift	1. Making of an anemometer	1. Activity 8.1 Air exerts pressure 2. Activity 8.6 hot air rising up	Pg.92-93 all evaluations	10
9	Soil	<ul style="list-style-type: none"> Applies learning of scientific concepts in day-to-day life, e.g., treating soil. 	1. Activity 9.1 observation of soil sample	1. Activity 9.4 measuring rate of percolation		1. Activity 9.2 making layers of soil 2. Activity 9.6 absorption of water in the soil	Pg.105-106 all evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
10	Respiration in Organisms	<ul style="list-style-type: none"> • Conducts simple investigations to seek answers to queries • Relates processes and phenomena with causes • Explains processes and phenomena • Draws labelled diagrams 	1. Activity 10.1-10.2	1. Extended Learning 1-4 (Pg 120)	1. Activity 10.3-10.4	1. Activity 10.5-10.6	Pg 118-120 All Evaluations	10
11	Transportation in animals and plants	<ul style="list-style-type: none"> • Conducts simple investigations to seek answers to queries • Relates processes and phenomena with causes • Explains processes and phenomena 	1. Activity 11.1 pulse rate	1. Draw Fig.11.3 2. Extended learning No.1 Blood group	1. Fig 11.4 draw structure of human heart 2. Fig 11.6 draw human excretory system	1. Activity 11.2 heartbeat and pulse rate	Pg.131-132 all evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
12	Reproduction in Plants	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries Explains processes and phenomena Draws labelled diagrams 	1. Activity 12.1	1. Extended Learning 1-4 (Pg 142)	1. Activity 12.2 2. Exercise 5	1. Activity 12.3-12.4	Pg 141-142 All Evaluations	10
13	Motion and time	<ul style="list-style-type: none"> Plots and interprets graphs e.g., distance time graph Constructs models using materials from surroundings 	1. Table 13.6 making a graph	1. Making of sand clock. Pg 159 extended learning number 3.		1. Activity 13.2 setting up of simple pendulum	Pg. 156-157 all evaluations	10
14	Electric Current & its Effect	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries 	1. Activity 14.1-14.3	1. Extended Learning 1-4(Pg 172-173)	1. Activity 14.4-14.6 2. Exercise 7		Pg. 170-172 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
	<ul style="list-style-type: none"> Explains processes and phenomena` Measures and calculates Draws labelled diagrams Applies learning of scientific concepts in day-to-day life 							
15	Light	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries Relates processes and phenomena with causes Explains processes and phenomena 	1. Activity 15.1-15.5	1. Extended Learning 1-6 (Pg 190-191)	1. Activity 15.6-15.10	1. Activity 15.11-15.12	Pg. 189-190 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
	<ul style="list-style-type: none"> Constructs models using materials from surroundings and explains their working Applies learning of scientific concepts in day-to-day life 							
16	Water: A Precious Resource	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries Relates processes and phenomena with causes Explains processes and phenomena Measures and calculates 	1. Activity 16.1-16.2	1. Extended Learning 1-5 (Pg 204-205)	1. Activity 16.3-16.4 2. Exercise 9	1. Activity 16.5	Pg. 203-204 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted	
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
	<ul style="list-style-type: none"> Applies learning of scientific concepts in day-to-day life Exhibits values of honesty, objectivity, cooperation, freedom from fear and prejudices 						
17	Forests: Our Lifetime	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries Relates processes and phenomena with causes Applies learning of scientific concepts in day-to-day life 	1. Activity 17.1-17.3	1. Extended Learning 1-2 (Pg 219)			Pg 217-219 All Evaluations 10

Chapter	Learning Outcomes	Pedagogical process			Written Test	No. of days allotted	
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
		<ul style="list-style-type: none"> Exhibits values of honesty, objectivity, cooperation, freedom from fear and prejudices. 					
18	Waste water story	<ul style="list-style-type: none"> Suggesting methods for treatment of polluted water for reuse Exhibits values of honesty, objectivity, cooperation, freedom from fear and prejudices. 	1. Activity 18.2 water contaminant survey	1. Write essay about better house keeping	1. Activity 18.4 water filtration process	Pg. 228-229 all evaluations	10

CLASS-VIII

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
1	Crop production and management	<ul style="list-style-type: none"> Classifies materials and organisms based on properties/ characteristics Explains processes and phenomenon 	1. Activity 1.1 use rice instead of wheat	1. Activity 1.2 germination of seeds	1. Activity 1.3 source of food 2. Make table 1.1		Pg.13-15 all evaluations	10
2	Microorganism: Friend or Foe	<ul style="list-style-type: none"> Prepares slides of micro-organisms; onion peel, human cheek cells, etc., and describes their microscopic features Classifies organisms based on properties/ characteristics, e.g., useful and harmful micro-organisms 	1. Activity: 2.1 – 2.2	1. Extended Learning 1-5		Activity: 2.3 – 2.5	Pg 29-30 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
3	Synthetic fibres and plastics	<ul style="list-style-type: none"> Differentiates materials on the basis of their properties, structure and functions. Makes efforts to protect environment 	1. Table 3.1 natural and artificial fibres		1. Write essay on plastics and environment	1. Activity 3.1 determination of strength of material	Pg.41-42 all evaluations	10
4	Materials: Metals & Non-Metals	<ul style="list-style-type: none"> Classifies materials based on properties/ characteristics, non metals Writes word equation for chemical reactions, e.g., reactions of metals and non-metals with air, water and acids, etc. e.g., metals 	1. Activity: 4.1- 4.2	1. Extended Learning 1-6	1. Activity: 4.3-4.5	1. Activity: 4.6- 4.8	Pg 53-55 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
5	Coal & Petroleum	<ul style="list-style-type: none"> Classifies materials based on properties/ characteristics, e.g., exhaustible and inexhaustible natural resources, etc. 	1. Activity: 5.1-5.2	1. Extended Learning 1-3	1. Exercise 9 Preparation of graph		Pg. 62-63 All Evaluations	10
6	Combustion and flame	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries, e.g., What are the conditions required for combustion? 	1. Activity 6.1 Combustible and non-combustible substance		1. Fig 6.10 different zone of candle flame	1. Activity 6.2 Air is essential for burning 2. Activity 6.4 heating water in a paper cup 3. Activity 6.5 Structure of flame	Pg.75 all evaluations	10
7	Conservation of Plants & Animals	<ul style="list-style-type: none"> Makes efforts to protect environment, e.g., using resources judiciously; making controlled use 	1. Activity: 7.1 & 7.7	1. Extended Learning 1-2	1. Extended Learning 2-7 2. Exercise 11: Word Puzzle	-	Pg 86-88 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
	of fertilizers and pesticides; suggesting ways to cope with environmental hazards, etc.							
8	Cell-Structure of Plants & Animals	<ul style="list-style-type: none"> Draws labeled diagram/ flow charts, e.g., structure of cell. Prepare slides of micro-organisms; onion peel, human cheek cells, etc., and describes their microscopic features 	1. Table 8.1 comparison of plant and animal cells	1. Fig.8.7 Draw plant cell 1-4 (Pg 99)	1. Draw fig.8.3 Amoeba and paramecium 2. Draw fig.8.4 blood cells, muscles and nerve cells 3. Activity 8.2 study of eggs	1. Activity 8.1 micro-organism under microscope 2. Activity 8.3 study of onion peel under microscope	Pg.98 all evaluations	10
9	Reproduction in animals	<ul style="list-style-type: none"> Classifies organisms based on properties/ characteristics, 	1. Draw Fig.9.10 2. Draw Fig.9.12	1. Activity 9.1	1. Draw Fig.9.1-9.6 2. Draw Fig.9.8	1. Activity 9.3	Pg.110-111 all evaluations	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
	e.g., sexual and asexual reproduction • Draws labelled diagram							
10	Reaching The Age of Adolescence	• Applies learning of scientific concepts in day-to-day life, e.g., challenging myths and taboos regarding adolescence, etc. • Exhibits values of honesty, objectivity, cooperation, freedom from fear and prejudices	1. Activity 10.1-10.3	1. Extended Learning 1-4 (Pg 126)	1. Activity 10.4-10.6 2. Draw Fig.10.4-10.5	Pg 124-125 all evaluations	10	
11	Force & Pressure	• Applies learning of scientific concepts in day-	1. Activity 11.1-11.3	1. Extended Learning 1-3 (Pg 144-145)	1. Activity 11.4-11.6	1. Activity 11.7-11.11 2. Exercise Question 7	Pg 142-143 All Evaluations Except	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
	to-day life, e.g., increasing/ reducing friction <ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries, e.g., Do liquids exert equal pressure at the same depth? 				Question 7			
12	Friction	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries Relates processes and phenomenon with causes 	1. Activity 12.1 Friction oppose relative motion between the surfaces of the book and the table	1. Activity 12.2 factors against frictions	1. Write note on friction: a necessary evil 2. Activity 12.4 motion of books on rollers	Pg.154-155 all evaluations	10	
13	Sound	<ul style="list-style-type: none"> Explains processes and phenomenon, e.g., production and propagation 	1. Activity 13.1-13.3	1. Extended Learning 1-46(Pg 170-171)	1. Activity 13.4-13.6	1. Activity 13.7-13.11	Pg 168-169 All Evaluations	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods		
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical				
	of sound. <ul style="list-style-type: none"> Constructs models using materials from surroundings and explains their working, e.g., ektara. 							
14	Chemical effects on electric currents	<ul style="list-style-type: none"> Classifies materials and organisms based on properties/ characteristics, e.g., metals and non metals 	1. Activity 14.6 passing current through water	1. Table 14.1 good/poor conducting liquids	1. Activity 14.7 simple circuit showing electroplating	1. Activity 14.2 testing conduction of electricity 2. Activity 14.3 testing flow of electricity with compass	Pg.180-181 all evaluations	10
15	Some natural phenomena	<ul style="list-style-type: none"> Conducts simple investigations to seek answers to queries Relates processes and phenomenon with causes 	1. Activity 15.1 charging of ballpen refill	1. Activity 15.3 interaction between charge bodies	1. Activity 15.2 Charging of material	1. Activity 15.4 simple electroscope	Pg. 197-198 all evaluations	10

Chapter		Learning Outcomes	Pedagogical Process			Written Test	Periods	
			Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical			
16	Light	<ul style="list-style-type: none"> Draws labeled diagram/ flow charts, e.g experimental set ups, etc. Applies learning of scientific concepts in day-to-day life, e.g., Measures angles of incidence and reflection, etc. 	1. Activity 16.1-16.3	1. Extended Learning 1-4 (Pg 214)	1. Activity 16.4-16.6	1. Activity 16.7-16.10	Pg. 212-213 All Evaluations	10
17	Stars and the solar system	<ul style="list-style-type: none"> classifies materials and organisms based on properties/ characteristics, e.g., celestial objects; 	1. Draw figure 17.7 moon is visible due to reflected sunlight 2. Draw figure 17.7 the solar system		1. Activity 17.5 pole star does not appear to move 2. Activity 17.6 observation of constellation		Pg. 234-235 all evaluations	10
18	Pollution of Air & Water	<ul style="list-style-type: none"> Relates processes and phenomenon with causes, 	1. Activity 18.1-18.4	1. Extended Learning 1-5 (Pg 251-252)	1. Activity 18.5-18.8		Pg 250-251 all Evaluations	10

Chapter	Learning Outcomes	Pedagogical Process			Written Test	Periods
		Project Work/ Field Visit	Assignment/ Activity	Experiment/ Practical		
	e.g., smog formation with the presence of pollutants in air; deterioration of monuments with acid rain, etc.					

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