

Espalier Heritage School												
	Annual Planner 2020-21											
Grade IV	Subject: Science				Created By: Harsha Nair							
Sr No	Lesson Name	learning objectives/ Subtopic	Methodology	pedagogical methods	learning outcome	Teaching Aid	Teaching Place	Is the lesson worksheet ready	Reff.books with pg.no.	No.of lectures required	Class Activities /Diagrams / Map work	Activity Suggested ---Tr Name
	1.Sun,wind, clouds and rain	Introduction of the class	Interaction					1				
1		Introduction.	Teacher will ask different question to the students to introduce the topic.	Discussion , Explanation, reading lesson.	Students will come to know about the water cycle and the difference between weathera nad climate	Textbook	Green classroom		Textbook page no. 2 and 3.			Reading activity.Poem on Sun ,wind , cloud and rain.
2		Watching the weather.	Make a weather calendar.			Work book - Monthly weather calander.	Green classroom		Work book pg. 4and 5			Record daily temperature.
3		Temperature measurement.	writing daily temperature, writing question and answers in workbook.	Explanation from workbook		News paper or T.V report or thermometer	Science lab		workbook pg. 10.			Make a weather calendar and writing the daily weather report.
4		Wind	Observation of direction of Blowing wind , drawing diagrams in workbook .	Observation, Explanation,practical to show blowing wind.		Petriplates, water, leaf, paper, ,wind vane.(Practical)	Science lab		textbook pg. 6,7			1.Project: Making wind vane.(hands on science.)
5		Sky and clouds	Observation of day sky	Observation, Explanation, reading.		Drawing diagram on pg 13.of workbook.	Green classroom		workbook pg. 13			2.Measure the amount of rainfall in a Rain Guage bottle. sky observation
6		Rain	Drawing rain gauge, rain , rainbow.	Tr. Draw rain gauge on board and explain.		Model of rain gauge (Plastic bottle, funnel, measuring scale)	Science lab	1	Drawing diagram workbook Pg.14 , 16 and 17.			Practical as H. P : to make rain Gauge
7		Weather and farming.	Interaction of tr. and students.	Teacher will discuss Q/A and students will write in workbook.				5	Pg 20 to 35.			
8		Revision	work sheet solving	Discussion , Explanation, Solving				2				Visit to weather report office.
	Lesson: 2.	Day sky and Night sky.										
1		Introduction .	Tr. Explain the phenomenon of sunrise and sun set and show the shadow play.	Interaction, Explanation, observation.	Students will come to know about the concept of rptation and revolution.	torch or candle and globe.	classroom		Pg. 15 text book.			Shadow play using different source of light ex: candle, tourch
2		Lesson reading.	Reading.	Reading , Interaction.		H.P :Writing hard words from lesson. <a href="https://www.youtube.com/watch?v=hWkKSkI3gkU">https://www.youtube.com/watch?v=hWkKSkI3gkU</a>	classroom					
3		Writing time for sunrise and sunset for one week.	Workbook activity pg. 36	Observation , explanation.		Newspaper or T.V report	classroom		W.B pg. 36, 37.			
4		Sky watch	Observation of sky	Observation , explanation.		Tr. will write Q/A on board and students will write in workbook.	classroom		WB pg. 41 and 42			Observation of sky from school ground.
5		Phases of moon.	Tr. will draw different shapes of moon on board	Explanation.		kit of phases of moon ( 3rd std.)	classroom		WB Pg. 40			Completion of chart from work book of drawing shapes of moon every day for 1 month.
6		Drawing constillation	Tr. will draw the shapes of different constillations	Drawing , explanation.		showing night sky video from Kompkin.	classroom		T.B pg .45			students will draw the different shapes of constillations after watching videos.
7		Writing Q/A	Tr will write Q/A on board and students will write in W.B	Writing and explanation.		Writing Q/A in work book .	classroom		W.B Pg. 43 to 46.			
8		Revision	Solving worksheet	Writing and explanation.		Learning Q/A and writing Hard words.	classroom					
9		visit										Visit to planetarium
	Lesson : 3 Fun with Air.											
1		Introduction	Tr. ask the students to make a list where air is not present.	Discussion	Students will come to know about the importance of air.	Plastic bag , balloons, Piston, glass etc.	science lab					Practical to show air is present in continer, balloons, bag.
2		Lesson reading. ( Airy story of apu and mini.)	reading.	Reading , Interaction.		Textbook.	classroom		T.B pg 23 to 31.			Writing hard word.
3		Q/ A	Tr. will write Q/A on board and students will write in workbook.	Writing and explanation with interaction.			classroom		WB. Pg. 49 to 51.			students will write Q/A in workbook pg. 49 to 51
4		Air moves and pushes the things.	Tr. ask the students about the things which are easily moved by air.	Interaction, Explanation, observation.		Different types of seed( seed dispersal), Paper (Kite) etc.	classroom		T.B pg 26 to 27.			Making wind wheel (Pg. 26 of T.B )
5		Q/ A	Tr. will write Q/A on board and students will write in workbook.	Writing and explanation with interaction.		students will write Q/A in workbook pg. 52 and 53 with diagrams.	classroom		T.B pg 26 to 27.			
6		Air makes bubbles and air makes sound.	Blowing with the straw in the soap water.	Observation , explanation.		Musical instruments like whistle , flute etc.	kuteer		W.B Pg. 56, 57, 58.			Labeling the diagrams in W.B of musical instruments.

7		Q/ A	Tr. will write Q/A on board and students will write in workbook.	Writing and explanation with interaction.		students will write Q/A in workbook pg. 59 to 63	classroom				
8		Play with words	Tr. Explains the puzzle of what air can do.	Thinking, reasoning		W.B		W.B pg 61			Students will solve the puzzle.
		Writing sound words, writing poem on air .	Tr. Explains the sound words	Practical to show sound words.		Writing in W.B Pg 62 the sound words and writing poem on air on their own and even learning poem from T.B pg 23.	classroom	W.B Pg 63			
9		Revision	Worksheet solving	Solving and explanation.		students also solve worksheet.					
	Lesson 4:	whats in the air ?									
1		Intoduction.	Tr. ask the students about what is air ? What are consituents of air? Etc...and introduce the lesson.	Interaction, Explanation, observation.	Students will come to know about the different gases present in the atmosphere.	Students also interact with the teacher.	green classroom				
2		Reading of the lesson	Tr. Reads lesson for the students.	Reading , Interaction.		Textbook.	classroom	pg 34 to 41			students listen and write the hardwords.
3		Experments to show the presence of air (in body, water etc)	Tr. Show the practicals related to air.	Performing, Observation		Balloon, Piston, straw, water	science lab	Pg. 64 and 65.			
4		Q/ A	Tr. Write Q/A on board	writing , explanation.		Board	classroom	Pg 64 and 65			
5		Where do different gases come from?	Tr. Explain that the gases can be smelled from kitchen, rotting food, burning etc.	Interaction, Explanation, observation.		different types of food, rotten substances like onion.	science lab	Pg. 66 and 67			
6		Air carries things that you cannot see.	Tr. Explains the topic like sore throat bacteria, cold virus , moulds.	Observation , explanation.		Students observe the same and draw in note book.	classroom	Pg 40 and 41 from T.B			
7		Exercise from workbook	Tr. Write Q/A on board and draw the diagrams	Drawing , explanation.			classroom	W.B Pg 68.			Students write in workbook and draw.
8		Q/A	Tr. Write Q/A on board	writing , explanation.			classroom	W.B Pg 69 and 70.			Students write in W.B
9		Q/A	Talk and write. Tr will write Q/A on the board	writing , explanation.			classroom	W.B Pg 70 to 72			Students will write in W.B
10		Revision	Tr. Will take revision of the topic	Revising.			classroom				Students will revise the same.
11		Project : students will tie a seed to kit . To show seed dispersal.									
	Unit :3	Lesson 5: Fun with water									
1		Introduction and lesson reading.	Tr. ask the students about what fun they can have with water?	Interaction, Explanation, observation.	Students will come to know about the various activities done with the help of water.		science lab				Students will interact with the students and read the lesson.
2		Float, sink or mix?	Tr. Will discuss with the students ab out the things which will float, sink or mix and show them practical.	Observation , explanation, Performing.		small stones, oil, paper,salt etc.	science lab	W.B pg 75 and 76			
3		Q/A , Making water wheel pattern (H.P)	Tr. Will discuss and write Q/A on the board . Tr. Explain how to make Water wheel pattern	Writing, interaction, Practical.		chart paper, glue. (Pg. 77 of W.B)	classroom	W.B Pg. 79 and 80			
4		Water climbs	Tr. Will show the activity that how the water climbs up.	Practical to show water climbs up.		Chalk, Handkerchief, white flower.	science lab	W.B Pg 80 and 81			Students observe the same and note the measurement
5		Liquid water turns into water vapour.	Tr will show the experiment to show water turns into water vapour.	Explanation.		two glasses: one covered and one open	science lab	W.B Pg 81 and 82			students observe that how water evaporates or turns into water vapour with date and time in W.B
6		Water vapour turns into liquid water.	Tr will show the experiment to show water vapour and ask the questions related to the observation.	Explanation.		Cold drink bottle, two glasses.Pg. 82	science lab	W.B. pg. 82 and 83			Students will observe and interact with the teacher and write Q/A related to the observation.
7		Water cycle	Tr. Show the poem on water cycle and write Q/A on same on blackboard	Observation, watching vedios, writing		vedio (poem)	AV room	W.B pg 84			students learn and observe the poem and write Q/A in W.B
8		Exercises	Tr. Will draw diagrams on board	Drawing , explanation.				W.B pg 85 and 86			<a href="https://www.youtube.com/watch?v=Z0ymnkj8N-U">https://www.youtube.com/watch?v=Z0ymnkj8N-U</a>
9		Interesting questions	Tr. Will write Q/A on board and students will write in workbook.	Explanation.		Students will write in W.B	classroom	W.B pg. 87 to 92			
10		Revision	Worksheet solving	Tr. Explains and solve the worksheet		Students will solve the worksheet.					
	Lesson : 6	Water and life.									



1		Introduction and lesson reading.	Tr. Will ask the students that from where do they get food?	Interaction.	Students will come to know about the about the different processes of farming systematically.		farm and gazebo					Students will interact with the tr.and read the lesson. https://www.youtube.com/watch?v=v7HNTGXwQd0
2		Food ingredients	Tr. Will ask the students that from where do they get food and what are the ingredients used to make it. Tr ask the students to bring different type of food and write its ingredients.	Interaction, observation, thinking , listening.		food ingredients.	classroom			Observation on pg :117 of W.B		<a href="#">Students will interact with the tr.and discuss the ingredients in food</a>
3		Sources of food : Animal source or plant source. Write Q/A chart of W.B pg 118	Tr will explain the main sources of food. Tr will explain that plant source mean the food which we get from plants . The food which we get from animals Like milk, meat etc.	observation		plant food, seeds, pulses and animal source like egg, milk.	classroom			W.B pg 118.		Students observe and listen and think all the sources of food. Students will fill the chart on pg 118 after discussion with tr. inW.B pg 118
4		Which part of the plant or animals we eat?	Tr will explain the students about which part of the plants or animals we eat.	observation, thinking, listening, interaction.	roots, stem, fruit, leaves and picture of different plants shown on pg 119 , 120, 121 of W.B	students will observe the plants and answer the questions in W.B.	farm and gazebo			W.B pg 119,120 and 121.		
5		Food that come from animals	Tr will ask the question from W.B Pg 122.	thinking.		Graph of W.B pg 122.	classroom			W.B pg 122		students will observe the graph and answer the questions in W.B.
6		Tools, steps and techniques used for cultivation of rice.	Tr will explain the process of cultivation of rice till it is harvested and send in market. Tr will write Q/A of W.B on board.	Observation.			visit to rice field.			W.B pg 123 to 127		students will do the observation and plantation of rice in the field and write answers in W. B
7		Pests and Pesticides (T.B pg 81)	Tr will explain the meaning of Pest and pesticides and write Q/A on board from W.B	Writing, discussion.		Students will write Q/A in workbook pg 128.	classroom			W.B pg 128		
8		Exercises and project.	Plantation of one plant. Name and draw according to the observation of the growth of the plant.	Drawing			farm and gazebo			W.B pg 129 and 130.		Students will draw according to the observation of the growth of the plant in W. B pg 129 and 130.
9		Interesting questions.	Tr. Will explain and write Q/A on board.	Writing, discussion.			classroom			W.B pg 131 to 137.		Students will write Q/A in workbook pg 131 to 137
10		Home play	Worksheet solving. Writing hard words.				classroom					
Lesson no 9 Food in our bodies.												
1		Story of Apu and mini : Eat your lunch.	Tr will tell the story and discuss about the food.	listening and reading.	Students will come to know about the working of digestive path.		science lab			T.B pg 85		Students will listen to the story and interact with the tr.https://www.youtube.com/watch?v=bFc2vlp0bpU
2		The digestive path.	Tr will explain the digestive	labeling , observation.		Digestive system model.	science lab			T.B pg 86		<a href="#">Students will get kit of digestive system in hands on science and will colour the path.</a>
3		Q/A	Tr. Will write Q/A on board	writing								
4		How the food changes in the body. (T.B pg 91)	Tr will explain the digestion process and the changes which happens in the body and write Q/A on board.	Explanation.		videos	AV room					
5		Digestive path of other animals.	W.B pg 141 and 142.	drawing.			classroom					Drawing the path .
6		Interesting questions.	Tr. Will explain and write Q/A on board.	Writing, discussion.			classroom			W.B pg 144 and 145		
7		Home play:	Play with words. W. B pg 146				classroom					
8		Revision	Worksheet solving.				classroom					
Lesson 10 What is thrown out ?												
1		Introduction T.B pg 96.	Tr discuss with the students about what are the things which are thrown away of food.	Interaction.	Student will come to know about the sewage system and its working.	Plants parts like roots , seeds, outer peel	science lab AV room					students will make list of different food items which can not be eaten or thrown out.
2		Chart on pg 148 of W.B	Tr will discuss and write on board.	observation, writing.		videos	science labscience lab AV room			W.B pf 148		students will write the chart.

3		Charts on pg 149 of W.B	Tr will discuss and write on board.	observation, writing.			science lab			W.B pf 149		students will write the chart.
4		Think think	Tr will discuss and write on board.	observation, writing.			science lab AV room			W.B pf 150 and 151		students will write in the W.B.
5		Micro-organisms.	Tr will explain the role of micro-organisms and its importance.	observation, writing.		Petriplate containing nutrients to show growth of microorganisms.	science lab					Students will observe the plate and observe few examples where microorganisms are present like curd.
6		Q/A	Tr will write Q/A on board	writing			science lab					
7		Where does our waste goes?	Tr explains where our waste goes and how it can be useful.(different types of Toilets)	Explanation.		Students will write Q/A in W.B pg 156 and 157	science lab			W.B Pg 156 and 157		Students will write the same.
8		How microbes help to decompose our waste.	Tr will explain the role of micro-organisms and its importance. Tr will write Q/A on board	Explanation.		Students will write in W.B pg 158 and 159.	classroom			W.B pf 158 and 159		