

Espalier Heritage School	
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Annual Planner 2022-23											
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Grade IV				Subject: Science						
Q.No.	Lesson Name	Learning Objectives	Methodology	Resources	Learning outcomes	Teaching Aid	Teaching Strategy	Diff books	No. of	Activities/Comments

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[illegible]

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, tource
2		Lesson reading.	Reading.	Reading , Interaction.		H.P :Writing hard words from lesson. https://www. youtube. com/watch?v=hWkKSkI3gkU	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 their terrace.
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	Teacherwill 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								
	Lesson : 3 Fun with Air.								9	
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.	classroom			Practical to show air is present in container, 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.	classroom	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	classroom	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.	classroom			
	Lesson 4: Whats in the air ?								6	
1		Intoduction.	Tr. ask the students about what is air ? What are consituents of air? Etc...and introduce the	Interaction, Explanation, observation.	Students will come to know about the different gases present in the atmosphere.	Students also interact with the teacher.	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	classroom	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	Interaction, Explanation, observation.		different types of food, rotten substances like onion.	classroom	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. Teacher 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								7	
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.		classroom			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.	classroom	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		

1		Introduction : Importance of water.	Teacher will explain the importance of water by giving few examples like water important for all living things and for many day to day activity. (Teacher will show an experiment in which it proves that water is important for living things i.e if we will not give water to plant for few days it will die. we can	Explanation, showing, observation.	Students will to know about the importance of water in life .	two plants in a pot or two flowers.	classroom	T.B pf 58		Students will observe the plants and see the change in them.
2		Q/A	Tr. Will write Q/A on board and students will write in workbook.	Writing, interaction.	Board and diagram	Students will write Q/A in workbook pg. 94	classroom	W.B pg 94. and T.B pg 56.		
3		Life cycle of a Mosquito	Teacher will draw the life cycle on board.	Drawing , explanation.		chart of life cycle from T.B	classroom	T.B pg 56		Students will observe and draw in note book.
4		Water in living things	Tr. And students perform the practical to show water is present in living things. Ex: Teacher will tie a plastic bag to a plant and even on hand . Within few min vapours will be seen in the bag.	Practical and observation.		Plant and plastic bag.	classroom	T.B pg 57.		Students observe that water is present in living things.
5		Q/A	Tr. Will write Q/A on board and students will write in workbook.	writing.			classroom	W.B pg 96 and 97		Students will write in workbook.

6		Living things in water, near fresh water, pond and desert.	Tr. Explains that different types of animals or organisms live in water like: Amoeba, bacteria, paramecium, fish, seaweed. Pond water: frog, mosquito, lotus Desert: Desert fox, khejri.	Observation		Microscope, Permanent slides and few pictures	classroom		T.B pg 60 and 61.	Students will observe the slides and observe the pictures shown in T.B pg 60 and 61.
7		Q/A	Teacher will write Q/A and diagrams on board and students will write in W.B	writing and interaction.					W.B pg. 96, 97 and 98.	students will write Q/A and draw diagrams in workbook
8		Interesting questions and classroom discussion questions. (Q/A)	Teacher will explain the chart from workbook pg 99 about where we can see water in different things. (like fruits, vegetables, flower, leaf, body)	Observation and explanation.		different seeds, fruits, flowers vegetables.	classroom		W.B pg 99	Students observe that water is present in fruits, seeds, flowers and write their observation in w.B pg 99
9		Revision	Writing hard words and worksheet.	learning, writing			classroom			students will write in N.B and revise.
	Lesson No: 7 Water and us.								8	
1		Introduction : Water is precious.	Tr. Will explain what is the importance of water.	Explanation.	Students will come to know about the uses of water .	showing vedio on draught or showing importance of water.	classroom			students will observe the vedio and realize the importance of water.
2		How we use water today or how we used water in olden days	Tr. Will have a discussion on how people used water in olden days or today. They will have an interaction on sources of water.	Reasoning , Interaction.		pictures on sources of water.	classroom			https://www.youtube.com/watch?v=jOqP09oQOBw

3		Need of water for crops	Teacher will tell the students which crops need more water like rice , sugarcane. Or which crops require less	listening, observation			classroom		W.B pg 103 and 104	Students will interact with the students and write the Q/A in W.B pg. 103 and 104
4		Methods to clean water: Decantation, filtration, cloth, alum, sedimentation.	Teacher will explain the different methods of cleaning the water.	observation, interaction, writing.		Mud, conical flask, filter paper, funnel.	classroom		W.B pg 106 and 107	Students will do the filtration of water in class and observe. Students will write Q/A in workbook.
5		Diagram	Teacher will draw the diagram on the board.	Drawing , explanation.			classroom		W.B pg 108	students will draw the diagram in the w.B pg 108
6		Interesting questions.	Tr. Will discuss and write Q/A on the board	writing , explanation.			classroom		W.B pg 109 to 114	students will write Q/A in the workbook Pg. 109 to 114
7		Revision :	Teacher will take revision of the topic orally.				classroom			Students will revise the same.
	Lesson no 8 : Where our food comes from?								10	
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.		classroom			<u>Students will interact with the tr. and read the lesson. https://www.youtube.com/watch?v=v7HNTGXwQd0</u>
2		Food ingredients	Tr. Will ask the students that from where do they get food and what are the ingredients used to make it. Teacher ask the	Interaction, observation, thinking , listening.		food ingredients.	classroom		Observation on pg :117 of W.B	<u>Students will interact with the tr. and discuss the ingredients in food</u>

3		Sources of food : Animal source or plant source. Write Q/A chart of W.B pg 118	Teacher will explain the main sources of food. Teacher will explain that plant source mean the food which we get from plants . The food which we	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. in W.B pg 118
4		Which part of the plant or animals we eat?	Teacher 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.	classroom		W.B pg 119, 120 and 121.	
5		Food that come from animals	Teacher 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.	Teacher will explain the process of cultivation of rice till it is harvested and	Observation.			classroom		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)	Teacher 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			classroom		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.						10		

1		Story of Apu and mini : Eat your lunch.	Teacher will tell the story and discuss about the food.	listening and reading.	Students will come to know about the working of digestive path.		classroom		T.B pg 85	Students will listen to the story and interact with the tr. https://www.youtube.com/watch?v=bFcZvJp0bpU
2		The digestive path.	Teacher will explain the digestive	labeling , observation.		Digestive system model.	classroom		T.B pg 86	Students will get kit of digestive system in hands on science and will colour the path.
3		Q/A	Tr. Will write Q/A on board	writing			classroom			
4		How the food changes in the body. (T.B pg 91)	Teacher will explain the digestion process and the changes which happens in the body and write Q/A on	Explanation.		videos	classroom			
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 ?							8		
1		Introduction T.B pg 96.	Teacher will 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	classroom			students will make list of different food items which can not be eaten or thrown out.
2		Chart on pg 148 of W.B	Teacher will discuss and write on board.	observation, writing.		videos	classroom		W.B pf 148	students will write the chart.
3		Charts on pg 149 of W.B	Teacher will discuss and write on board.	observation, writing.			classroom		W.B pf 149	students will write the chart.

4		Think think	Teacher will discuss and write on board.	observation, writing.			classroom		W.B pf 150 and 151	students will write in the W.B.
5		Micro-organisms.	Teacher will explain the role of micro-organisms and its importance.	observation, writing.		Petriplate containing nutrients to show growth of microorganisms.	classroom			Students will observe the plate and observe few examples where microorganisms are present like curd.
6		Q/A	Teacher will write Q/A on board	writing			classroom			
7		Where does our waste go?	Teacher 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	classroom		W.B Pg 156 and 157	Students will write the same.
8		How microbes help to decompose our waste.	Teacher will explain the role of micro-organisms and its importance.	Explanation.		Students will write in W.B pg 158 and 159.	classroom		W.B pf 158 and 159	