Week	Lesson	Strand	Sub-strand	Specific-Learning outcomes	Learning Experience	Key Inquiry Question(S)	Learning Resources	Assessment Methods	Reflection
1	**1**	Mixture, Elements and Compounds	Oxygen; Identifying the structure of the oxygen atom	By the end of the lesson, the learner should be able to: a) Identify the structure of the oxygen atom. b) Draw the structure of the oxygen atom. c) Discuss and suggest properties of the element in learner's book 8 page 42 d) Appreciate the structure of the oxygen atom.	In groups or in pairs, learners are guided to identify the structure of the oxygen atom. In groups or in pairs, learners are guided to draw the structure of the oxygen atom. In groups or in pairs, learners are guided to discuss and suggest properties of the element in learner's book 8 page 42	What is the atomic number of the oxygen atom?	Mentor; Integrated Science Learner's Book Grade 8 pg. 41 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Mixture, Elements and Compounds	Role of oxygen in day-to-day life	By the end of the lesson, the learner should be able to: a) Use digital devices, textbooks or any other relevant resources, search for the role of oxygen in day-to-day life. b) Participate in a class presentation as they share their findings with their classmates. c) Appreciate the role of oxygen in day-to-day life.	In groups or in pairs, learners are guided to use digital devices, textbooks or any other relevant resources, search for the role of oxygen in day-to-day life. In groups, learners are guided to participate in a class presentation as they share their findings with their classmates.	What is the role of oxygen in day-to-day life?	Mentor; Integrated Science Learner's Book Grade 8 pg. 41-42 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Mixture, Elements and Compounds	Preparation of oxygen in the laboratory	By the end of the lesson, the learner should be able to: a) Identify the requirements needed to prepare oxygen using hydrogen peroxide. b) State the safety precautions to be observed. c) Prepare oxygen using hydrogen peroxide. d) Appreciate the uses of oxygen.	In groups or in pairs, learners are guided to identify the requirements needed to prepare oxygen using hydrogen peroxide. In groups or in pairs, learners are guided to state the safety precautions to be observed. In groups or in pairs, learners are guided to prepare oxygen using hydrogen peroxide.	How do you prepare oxygen using hydrogen peroxide?	Mentor; Integrated Science Learner's Book Grade 8 pg. 42-43 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	4	Mixture, Elements and Compounds	How to prepare oxygen using Potassium Manganate (VII)	By the end of the lesson, the learner should be able to: a) Identify the requirements needed to prepare oxygen using Potassium Manganate (VII) b) Outline the procedure of preparing oxygen using Potassium Manganate (VII) c) Prepare oxygen using Potassium Manganate (VII) d) Appreciate the uses of oxygen.	In groups or in pairs, learners are guided to identify the requirements needed to prepare oxygen using Potassium Manganate (VII) In groups or in pairs, learners are guided to Outline the procedure of preparing oxygen using Potassium Manganate (VII) In groups or in pairs, learners are guided to prepare oxygen using Potassium Manganate (VII)	What is the colour and smell of the gas collected?	Mentor; Integrated Science Learner's Book Grade 8 pg. 43-44 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	

	5	Mixture, Elements and Compounds	Physical and Chemical properties of oxygen	By the end of the lesson, the learner should be able to: a) Define the term, 'Physical property' and 'chemical property' b) Describe the physical properties of oxygen. c) Investigate the chemical properties of oxygen. d) Appreciate the importance of oxygen.	In groups or in pairs, learners are guided to define the term, 'Physical property' and 'chemical property' In groups or in pairs, learners are guided to describe the physical properties of oxygen. In groups or in pairs, learners are guided to investigate the chemical properties of oxygen.	What are the physical properties of oxygen? What are the chemical properties of oxygen?	Mentor; Integrated Science Learner's Book Grade 8 pg. 44-45 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
2	**1**	Mixture, Elements and Compounds	The role of oxygen in combustion and spread of fire	By the end of the lesson, the learner should be able to: a) Identify the role of oxygen in combustion. b) Explain the role of oxygen in combustion and spread of fire. c) Investigate the three requirements for combustion to occur. d) Appreciate the role of oxygen in combustion.	In groups or in pairs, learners are guided to identify the role of oxygen in combustion. In groups or in pairs, learners are guided to explain the role of oxygen in combustion and spread of fire. In groups or in pairs, learners are guided to investigate the three requirements for combustion to occur.	What is the role of oxygen in combustion and spread of fire?	Mentor; Integrated Science Learner's Book Grade 8 pg. 46-47 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Mixture, Elements and Compounds	Classes of fire and their control measures	By the end of the lesson, the learner should be able to: a) State the difference between burning paper and burning kerosene. b) Investigate types of fire. c) Advocate the importance of controlling fire.	In groups or in pairs, learners are guided to state the difference between burning paper and burning kerosene. In groups or in pairs, learners are guided to investigate types of fire.	What is the difference between difference between burning paper and burning kerosene?	Mentor; Integrated Science Learner's Book Grade 8 pg. 47 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Mixture, Elements and Compounds	Identifying the classes of fire	By the end of the lesson, the learner should be able to: a) Identify different classes of fire and their control measures. b) Recognize which substance cause each class of fire. c) Appreciate the classes of fire.	In groups or in pairs, learners are guided to identify different classes of fire and their control measures. In groups or in pairs, learners are guided to recognize which substance cause each class of fire.	Which substance cause each class of fire?	Mentor; Integrated Science Learner's Book Grade 8 pg. 47-48 Pictures Charts Computing devices	Oral questions Oral Report Observation	
	4	Mixture, Elements and Compoun	Control measures for different classes	By the end of the lesson, the learner should be able to: a) Identify types of fire extinguishers.	In groups or in pairs, learners are guided to identify types of fire extinguishers. In groups or in pairs, learners are guided to state the classes of fire that each extinguisher is suitable for.	What is a fire extinguisher?	Mentor; Integrated Science Learner's Book Grade 8 pg. 48-49 Pictures	Oral questions Oral Report Observation	

		ds	of fire	b) State the classes of fire that each extinguisher is suitable for. c) Investigate the chemicals found in each of the fire extinguisher. d) Appreciate the uses of fire extinguisher.	In groups or in pairs, learners are guided to investigate the chemicals found in each of the fire extinguisher.		Charts Realia Computing devices		
	5	Mixture, Elements and Compounds	The fire triangle	By the end of the lesson, the learner should be able to: a) Identify the three requirements for a fire to start. b) Explain the three ways of breaking the fire triangle. c) Investigate ways one can apply the knowledge of breaking the fire triangle to stop fire. d) Appreciate the fire triangle.	In groups or in pairs, learners are guided to identify the three requirements for a fire to start. In groups or in pairs, learners are guided to explain the three ways of breaking the fire triangle. In groups or in pairs, learners are guided to investigate ways one can apply the knowledge of breaking the fire triangle to stop fire.		Mentor; Integrated Science Learner's Book Grade 8 pg. 49-50 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
3	**1**	Mixture, Elements and Compounds	Brainstorm on classes of fire and their control measures	By the end of the lesson, the learner should be able to: a) Name the materials that can catch fire in school. b) Identify sources of heat that can ignite a fire at school. c) Recognise classes of fire that are likely to occur in their school. d) Appreciate the control measures of fire.	In groups or in pairs, learners are guided to name the materials that can catch fire in school. In groups or in pairs, learners are guided to identify sources of heat that can ignite a fire at school. In groups or in pairs, learners are guided to recognise classes of fire that are likely to occur in their school.	How best can we prepare in case of a fire at school?	Mentor; Integrated Science Learner's Book Grade 8 pg. 50 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Mixture, Elements and Compounds	Practicing fire control measure.	By the end of the lesson, the learner should be able to: a) Practice breaking the fire triangle. b) Observe safety precautions as they carry out the activity. c) Write a report about how each of the method of breaking the fire triangle works to stop the fire. d) Enjoy practicing fire control measures.	In groups or in pairs, learners are guided to practice breaking the fire triangle. In groups or in pairs, learners are guided to observe safety precautions as they carry out the activity. In groups or in pairs, learners are guided to write a report about how each of the method of breaking the fire triangle works to stop the fire.	What have you learnt about fire?	Mentor; Integrated Science Learner's Book Grade 8 pg. 50-51 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Mixture, Elements and Compoun	Right to safety and access	By the end of the lesson, the learner should be able to: a) Identify information on flammable	In groups or in pairs, learners are guided to identify information on flammable substances. In groups or in pairs, learners are guided to explain	Why do you think it is important to provide	Mentor; Integrated Science Learner's Book Grade 8 pg. 51-52	Oral questions Oral Report Observation	

		ds	to information on flammable substances	substances. b) Explain the meaning of hazard symbols on the container. c) Recognize the importance of providing information about flammable substances. d) Appreciate the importance of safety and access to information on flammable substances.	the meaning of hazard symbols on the container. In groups or in pairs, learners are guided to recognize the importance of providing information about flammable substances.	information about flammable substances?	Pictures Charts Realia Computing devices		
	4	Living things and their environment	The cell; Structure of the cell	By the end of the lesson, the learner should be able to: a) Explain the meaning of a cell. b) Identify the structure of a cell. c) Draw the structure of a cell. d) Have a desire to learn more about a cell.	Individually, learners are guided to explain the meaning of a cell. Individually, learners are guided to identify the structure of a cell. Individually, learners are guided to draw the structure of a cell.	What is a cell?	Mentor; Integrated Science Learner's Book Grade 8 pg. 53 Pictures Computing devices	Oral questions Oral Report Observation	
	5	Living things and their environment	Preparing a slide of a plant cell	By the end of the lesson, the learner should be able to: a) Identify the requirements needed to prepare a slide of a plant cell. b) Outline the process of preparing a slide of a plant cell. c) Prepare and mount a sample of a part of a plant on a slide. d) Enjoy preparing a slide of a plant cell.	In groups or in pairs, learners are guided to identify the requirements needed to prepare a slide of a plant cell. In groups or in pairs, learners are guided to outline the process of preparing a slide of a plant cell. In groups or in pairs, learners are guided to prepare and mount a sample of a part of a plant on a slide.	How do you prepare a slide of a plant cell?	Mentor; Integrated Science Learner's Book Grade 8 pg. 54-55 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
4	**1**	Living things and their environment	Observing a plant cell under a light microscope	By the end of the lesson, the learner should be able to: a) Identify the requirements needed to observe a plant cell under a light microscope. b) Outline the procedure of observing a plant cell under a light microscope. c) Observe a plant cell under a light microscope. d) Appreciate the importance of a light microscope.	In groups or in pairs, learners are guided to identify the requirements needed to observe a plant cell under a light microscope. In groups or in pairs, learners are guided to outline the procedure of observing a plant cell under a light microscope. In groups or in pairs, learners are guided to observe a plant cell under a light microscope.	How do you observe a plant cell under a light microscope?	Mentor; Integrated Science Learner's Book Grade 8 pg. 55-56 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Living things and their environme	Functions of the parts of a plant	By the end of the lesson, the learner should be able to: a) Draw a plant cell.	In groups or in pairs, learners are guided to draw a plant cell. In groups or in pairs, learners are guided to name the structures of a plant cell.	What are the functions of a plant cell?	Mentor; Integrated Science Learner's Book Grade 8 pg. 56-57	Oral questions Oral Report Observation	

		nt	cell	b) Name the structures of a plant cell. c) State the functions of the parts of a plant cell. d) Appreciate the functions of a plant cell.	In groups or in pairs, learners are guided to state the functions of the parts of a plant cell.		Pictures Charts Realia Computing devices		
	3	Living things and their environment	Observing an animal cell in a permanent slide	By the end of the lesson, the learner should be able to: a) Identify the requirements needed to observe an animal cell under a light microscope. b) Outline the procedure of observing an animal cell under a light microscope. c) Observe an animal cell under a light microscope. d) Appreciate the importance of a light microscope.	In groups or in pairs, learners are guided to identify the requirements needed to observe an animal cell under a light microscope. In groups or in pairs, learners are guided to outline the procedure of observing an animal cell under a light microscope. In groups or in pairs, learners are guided to observe an animal cell under a light microscope.	How do you observe an animal cell under a light microscope?	Mentor; Integrated Science Learner's Book Grade 8 pg. 57-58 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	4	Living things and their environment	Functions of the parts of an animal	By the end of the lesson, the learner should be able to: a) Draw an animal cell. b) Name the structures of an animal cell. c) State the functions of the parts of an animal cell. d) Appreciate the functions of an animal cell.	In groups or in pairs, learners are guided to draw an animal cell. In groups or in pairs, learners are guided to name the structures of an animal cell. In groups or in pairs, learners are guided to state the functions of the parts of an animal cell.	What are the functions of an animal cell?	Mentor; Integrated Science Learner's Book Grade 8 pg. 58 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	5	Living things and their environment	Differences between plant cell and animal cell	By the end of the lesson, the learner should be able to: a) State the differences between a plant cell and an animal cell. b) Recognise the differences between plant and animal cell. c) Draw the table in learner's book 8 page 59 d) Appreciate the differences between plant cell and animal cell.	In groups or in pairs, learners are guided to state the differences between a plant cell and an animal cell. In groups or in pairs, learners are guided to recognise the differences between plant and animal cell. In groups or in pairs, learners are guided to draw the table in learner's book 8 page 59	Which structure are in a plant cell and not in an animal cell?	Mentor; Integrated Science Learner's Book Grade 8 pg. 59-60 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
5	**1**	Living things and their environment	Magnification of a cell as seen under the light microsc	By the end of the lesson, the learner should be able to: a) Define the term magnification. b) State the formula of calculating magnification. c) Calculate the magnification of a	In groups or in pairs, learners are guided to define the term magnification. In groups or in pairs, learners are guided to state the formula of calculating magnification. In groups or in pairs, learners are guided to	How do you calculate the magnification of a microscope?	Mentor; Integrated Science Learner's Book Grade 8 pg. 60-61 Pictures Charts Realia	Oral questions Oral Report Observation	

			ope	microscope. d) Appreciate the importance of magnification.	calculate the magnification of a microscope.		Computing devices		
	2	Living things and their environment	Assessment	By the end of the lesson, the learner should be able to: a) Answer topical questions correctly.	Learners are guided to answer topical questions correctly	What have you learnt about cells?	Mentor; Integrated Science Learner's Book Grade 8 pg. 62 Assessment books.	Oral questions Oral Report Observation	
	3	Living things and their environment	Movement of materials un and out of the cells; The cell membrane	By the end of the lesson, the learner should be able to: a) Identify the cell membrane found in a cell. b) State the structures of the cell membrane. c) Draw the structure of a cell as shown in learner's book 8 page 63 d) Appreciate the structure of a cell.	In groups or in pairs, learners are guided to identify the cell membrane found in a cell. In groups or in pairs, learners are guided to state the structures of the cell membrane. In groups or in pairs, learners are guided to draw the structure of a cell as shown in learner's book 8 page 63	Where is the cell membrane found in a cell? What is the function of a cell membrane in a cell?	Mentor; Integrated Science Learner's Book Grade 8 pg. 63-64 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	4	Living things and their environment	Properties of a cell membrane	By the end of the lesson, the learner should be able to: a) Use the link: https://www.youtube.com/watch?v=fJfTDc3WzQ8 and watch the video. b) Describe the properties of a cell membrane. c) Investigate the structures of the cell membrane. d) Appreciate the properties of a cell membrane.	In groups or in pairs, learners are guided to use the link: https://www.youtube.com/watch?v=fJfTDc3WzQ8 and watch the video. In groups or in pairs, learners are guided to describe the properties of a cell membrane. In groups or in pairs, learners are guided to investigate the structures of the cell membrane.	What are the properties of a cell membrane?	Mentor; Integrated Science Learner's Book Grade 8 pg. 63-64 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	5	Living things and their environment	Effects of heat on the cell membrane	By the end of the lesson, the learner should be able to: a) State the requirements needed to investigate how heat affects the functioning of the cell membrane. b) Outline the procedure of investigating how heat affects the functioning of the cell membrane. c) Investigate how heat affects the functioning of the cell membrane. d) Appreciate effects of heat on the cell membrane.	In groups or in pairs, learners are guided to state the requirements needed to investigate how heat affects the functioning of the cell membrane. In groups or in pairs, learners are guided to outline the procedure of investigating how heat affects the functioning of the cell membrane. In groups or in pairs, learners are guided to investigate how heat affects the functioning of the cell membrane.	How does heat affect the functioning of the cell membrane?	Mentor; Integrated Science Learner's Book Grade 8 pg. 64-66 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	

6	**1**	Living things and their environment	Effects of alkali on the cell membrane	By the end of the lesson, the learner should be able to: a) State the requirements needed to investigate how alkali affects the functioning of the cell membrane. b) Outline the procedure of investigating how alkali affects the functioning of the cell membrane. c) Investigate how alkali affects the functioning of the cell membrane. d) Appreciate effects of alkali on the cell membrane.	In groups or in pairs, learners are guided to state the requirements needed to investigate how alkali affects the functioning of the cell membrane. In groups or in pairs, learners are guided to outline the procedure of investigating how alkali affects the functioning of the cell membrane. In groups or in pairs, learners are guided to investigate how alkali affects the functioning of the cell membrane.	How does alkali affect the functioning of the cell membrane?	Mentor; Integrated Science Learner's Book Grade 8 pg. 66-68 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Living things and their environment	Effects of dilute acid on the cell membrane	By the end of the lesson, the learner should be able to: a) State the requirements needed to investigate how dilute acids affects the functioning of the cell membrane. b) Outline the procedure of investigating how dilute acids affects the functioning of the cell membrane. c) Investigate how dilute acids affects the functioning of the cell membrane. d) Appreciate effects of dilute acids on the cell membrane.	In groups or in pairs, learners are guided to state the requirements needed to investigate how dilute acids affects the functioning of the cell membrane. In groups or in pairs, learners are guided to outline the procedure of investigating how dilute acids affects the functioning of the cell membrane. In groups or in pairs, learners are guided to investigate how dilute acids affects the functioning of the cell membrane.	How does dilute acids affect the functioning of the cell membrane?	Mentor; Integrated Science Learner's Book Grade 8 pg. 68-70 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Living things and their environment	Diffusion	By the end of the lesson, the learner should be able to: a) Explain the meaning of diffusion. b) Discuss the meaning of aroma. c) Do Activity 3 in learner's book 8 page 71 d) Have a desire to learn more about diffusion.	In groups or in pairs, learners are guided to explain the meaning of diffusion. In groups or in pairs, learners are guided to discuss the meaning of aroma. In groups or in pairs, learners are guided to do Activity 3 in learner's book 8 page 71	What is diffusion?	Mentor; Integrated Science Learner's Book Grade 8 pg. 71 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	4	Living things and their environment	How to demonstrate diffusion	By the end of the lesson, the learner should be able to: a) Outline the procedure of demonstrating diffusion. b) State the safety precautions to be observed. c) Demonstrate the process of diffusion.	In groups or in pairs, learners are guided to outline the procedure of demonstrating diffusion. In groups or in pairs, learners are guided to state the safety precautions to be observed. In groups or in pairs, learners are guided to demonstrate the process of diffusion.	How do you demonstrate diffusion?	Mentor; Integrated Science Learner's Book Grade 8 pg. 71-72 Pictures Charts Realia	Oral questions Oral Report Observation	

				d) Appreciate the importance of diffusion.			Computing devices		
	5	Living things and their environment	Factors that affect diffusion	By the end of the lesson, the learner should be able to: a) Describe the factors that affect diffusion. b) State the factors that increase the rate of diffusion. c) Recognise the factors that decrease the rate of diffusion. d) Appreciate the factors that affect diffusion.	In groups or in pairs, learners are guided to describe the factors that affect diffusion. In groups or in pairs, learners are guided to state the factors that increase the rate of diffusion. In groups or in pairs, learners are guided to recognise the factors that decrease the rate of diffusion.	What are the factors that affect diffusion?	Mentor; Integrated Science Learner's Book Grade 8 pg. 72-73 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
7	**1**	Living things and their environment	Role of diffusion in living organism	By the end of the lesson, the learner should be able to: a) Use the link: https://youtu.be/6qnSsV2syUE to watch how gases are exchanged in human lungs. b) Discuss role of diffusion in plants. c) Explain the role of diffusion in living organisms. d) Enjoy using digital devices.	In groups or in pairs, learners are guided to use the link: https://youtu.be/6qnSsV2syUE to watch how gases are exchanged in human lungs. In groups or in pairs, learners are guided to discuss role of diffusion in plants. In groups or in pairs, learners are guided to explain the role of diffusion in living organisms.	What is the role of diffusion in plants?	Mentor; Integrated Science Learner's Book Grade 8 pg. 73-75 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Living things and their environment	Practice exercise	By the end of the lesson, the learner should be able to: a) Identify diffusion processes in the diagrams in learner's book 8 page 75 b) Discuss the role of diffusion in living organisms. c) Draw the diagrams in learner's book 8 page 75 d) Appreciate the importance of diffusion.	In groups or in pairs, learners are guided to identify diffusion processes in the diagrams in learner's book 8 page 75 In groups or in pairs, learners are guided to discuss the role of diffusion in living organisms. In groups or in pairs, learners are guided to draw the diagrams in learner's book 8 page 75	What is the role of diffusion in living organism?	Mentor; Integrated Science Learner's Book Grade 8 pg. 75 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Living things and their environment	Osmosis	By the end of the lesson, the learner should be able to: a) Explain the meaning of osmosis. b) State the process of osmosis. c) Demonstrate the process of osmosis. d) Have a desire to learn more about osmosis.	In groups or in pairs, learners are guided to explain the meaning of osmosis. In groups or in pairs, learners are guided to state the process of osmosis. In groups or in pairs, learners are guided to demonstrate the process of osmosis.	What is osmosis?	Mentor; Integrated Science Learner's Book Grade 8 pg. 75-77 Pictures Charts Computing devices	Oral questions Oral Report Observation	
	4	Living	Practice	By the end of the lesson, the learner should be able	In groups or in pairs, learners are guided to state the	How do you	Mentor; Integrated Science	Oral questions Oral Report	

		things and their environment	exercise	to: a) State the requirements needed to demonstrate osmosis using a visking tubing. b) Outline the procedure to demonstrate osmosis using a visking tube. c) Demonstrate osmosis using a visking tube. d) Have fun and enjoy the experiment.	requirements needed to demonstrate osmosis using a visking tubing. In groups or in pairs, learners are guided to outline the procedure to demonstrate osmosis using a visking tube. In groups or in pairs, learners are guided to demonstrate osmosis using a visking tube.	demonstrate osmosis using a visking tube?	Learner's Book Grade 8 pg. 77-78 Pictures Charts Realia Computing devices	Observation	
	5	Living things and their environment	How to demonstrate osmosis using plant materials	By the end of the lesson, the learner should be able to: a) State the requirements needed to demonstrate osmosis using plant materials. b) Outline the procedure to demonstrate osmosis using plant materials. c) Demonstrate osmosis using plant materials. d) Have fun and enjoy the experiment.	In groups or in pairs, learners are guided to state the requirements needed to demonstrate osmosis using plant materials. In groups or in pairs, learners are guided to outline the procedure to demonstrate osmosis using plant materials. In groups or in pairs, learners are guided to demonstrate osmosis using plant materials.	How do you demonstrate osmosis using plant materials?	Mentor; Integrated Science Learner's Book Grade 8 pg. 78-80 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
8				**HALF TERM BREAK**					
9	**1**	Living things and their environment	Factors that affect osmosis	By the end of the lesson, the learner should be able to: a) Describe the factors that affect osmosis. b) Identify the factors that increase the rate of osmosis. c) Recognise the factors that decrease the rate of osmosis. d) Appreciate the factors that affect osmosis.	In groups or in pairs, learners are guided to describe the factors that affect osmosis. In groups or in pairs, learners are guided to identify the factors that increase the rate of osmosis. In groups or in pairs, learners are guided to recognise the factors that decrease the rate of osmosis.	What factors affect osmosis?	Mentor; Integrated Science Learner's Book Grade 8 pg. 80-81 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Living things and their environment	Role of osmosis in living organisms	By the end of the lesson, the learner should be able to: a) Explain the role of osmosis in living organisms. b) Discuss the role of osmosis in living plants. c) Recognise the role of osmosis in living animals. d) Appreciate the role of osmosis in living organisms.	In groups or in pairs, learners are guided to explain the role of osmosis in living organisms. In groups or in pairs, learners are guided to discuss the role of osmosis in living plants. In groups or in pairs, learners are guided to recognise the role of osmosis in living animals.	What is the role of osmosis in living organisms?	Mentor; Integrated Science Learner's Book Grade 8 pg. 81-82 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Living	Change	By the end of the lesson, the learner should be able to:	In groups or in pairs, learners are guided to state the importance of plants.	What do plants utilize	Mentor; Integrated Science	Oral questions Oral Report Observation	

		things and their environment	s that occur in the plant leaves at different times	a) State the importance of plants. b) Name the process that affects plants when making food. c) Investigate what affects plants when making food. d) Appreciate the importance of plants.	In groups or in pairs, learners are guided to name the process that affects plants when making food. In groups or in pairs, learners are guided to investigate what affects plants when making food.	to make food?	Learner's Book Grade 8 pg. 82 Pictures Charts Realia Computing devices		
	4	Living things and their environment	Observing the changes that occur on plant leaves at different times.	By the end of the lesson, the learner should be able to: a) Draw the diagrams in leaner's book 8 page 83 b) Observe the changes that occur on plant leaves at different times. c) Describe the observable changes on the leaves at different times. d) Appreciate the changes that occur on plant leaves at different times.	In groups or in pairs, learners are guided to draw the diagrams in leaner's book 8 page 83 In groups or in pairs, learners are guided to observe the changes that occur on plant leaves at different times. In groups or in pairs, learners are guided to describe the observable changes on the leaves at different times.	How do you think temperature affects the shape of the leaves at different times?	Mentor; Integrated Science Learner's Book Grade 8 pg. 83-84 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	5	Living things and their environment	Observing the changes that take place in the plant leaves at different times.	By the end of the lesson, the learner should be able to: a) Observe the changes that take place in the plant leaves at different times. b) State the importance of diffusion in one's body. c) Appreciate the importance of diffusion.	In groups or in pairs, learners are guided to observe the changes that take place in the plant leaves at different times. In groups or in pairs, learners are guided to state the importance of diffusion in one's body.	How do you think the rate of loss of water by the leaves affects the shape of the leaves at different times?	Mentor; Integrated Science Learner's Book Grade 8 pg. 84 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
10	**1**	Living things and their environment	Assessment	By the end of the lesson, the learner should be able to: e) Answer topical questions correctly.	Learners are guided to answer topical questions correctly	What have you learnt about the movement of materials in and out of the cells?	Mentor; Integrated Science Learner's Book Grade 8 pg. 85 Assessment books	Oral questions Oral Report Observation	
	2	Living things and their	Menstrual cycle in human	By the end of the lesson, the learner should be able to: a) Discuss human menstrual cycle using	Learners are guided in pairs, in groups or individually to discuss human menstrual cycle using flashcards with information about human menstruation.	What is the meaning of menstruation?	Curriculum design; Integrated Science Grade 8 Pictures	Oral questions Oral Report Observation	

		environment.	beings	flashcards with information about human menstruation. b) Describe the menstrual cycle in human beings. c) Appreciate menstruation in human beings	Learners are guided in pairs, in groups or individually to write down the meaning of menstruation and human menstruation cycle. Learners are guided in pairs, in groups or individually to describe the menstrual cycle in human beings.		Charts Realia Computing devices		
	3	Living things and their environment	Menstrual cycle in human beings	By the end of the lesson, the learner should be able to: a) Search the internet for information about menstrual cycle b) Watch a video on the menstrual cycle and note down the findings c) Enjoy presenting their findings in class.	Learners are guided in pairs, in groups or individually to search the internet for information about menstrual cycle. Learners are guided in pairs, in groups or individually to watch a video on the menstrual cycle and note down the findings	What information have you learnt about the menstrual cycle?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	4	Living things and their environment	Menstrual cycle in human beings	By the end of the lesson, the learner should be able to: a) Name menstrual phases in a human menstrual cycle in a wheel chart. b) Write down the events that take place in the phases of the human menstrual cycle. c) Describe the events that take place in the phases identified d) Appreciate the human menstrual cycle.	Learners are guided in pairs, in groups or individually to name menstrual phases in a human menstrual cycle in a wheel chart. Learners are guided in pairs, in groups or individually to describe the events that take place in the phases identified. Learners are guided in pairs, in groups or individually to write down the events that take place in the phases of the human menstrual cycle.	How many phases are in the human menstrual cycle?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	5	Living things and their environment	Challenges related to menstrual process	By the end of the lesson, the learner should be able to: a) Identify the major challenges in relation to menstruation b) Describe challenges related to the menstrual cycle c) Appreciate the human menstrual cycle.	Learners are guided in pairs, in groups or individually to identify the major challenges in relation to menstruation. Learners are guided in pairs, in groups or individually to discuss various challenges related to the menstrual cycle and write short notes. Learners are guided in pairs, in groups or individually to describe challenges related to the menstrual cycle.	What challenges are associated with the menstruation in human beings?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
11	**1**	Living things and their environme	How to manage challenges	By the end of the lesson, the learner should be able to: a) Make discussion cards with information on	Learners are guided in pairs, in groups or individually to make discussion cards with information on challenges related to menstrual cycle.	How best can we manage issues related to the	Curriculum design; Integrated Science Grade 8 Pictures	Oral questions Oral Report Observation	

		nt	related to menstrual cycle	challenges related to menstrual cycle b) Write down short notes on how to manage challenges related to menstrual cycle c) Appreciate the ways to manage the challenges related to the human menstrual cycle.	Learners are guided in pairs, in groups or individually to search the internet for information on how to manage challenges related to menstrual cycle. Learners are guided in pairs, in groups or individually to write down short notes on how to manage challenges related to menstrual cycle.	menstrual cycle?	Charts Realia Computing devices		
	2	Living things and their environment	Project: Improvising a sanitary towel	By the end of the lesson, the learner should be able to: a) Draw and cut out sanitary towel template and trace the sanitary towel b) Improvise a sanitary towel using cotton fabrics, face towels and safety pins c) Take pride in and display the improvised sanitary towel.	Learners are guided in pairs, in groups or individually to draw and cut out sanitary towel template and trace the sanitary towel Learners are guided in pairs, in groups or individually to improvise a sanitary towel using cotton fabrics, face towels and safety pins and display the improvised sanitary towel.	How is safety ensured when improvising the sanitary towel?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Living things and their environment	Fertilization and implantation	By the end of the lesson, the learner should be able to: a) Name the two main processes in the reproductive process b) Use digital devices to observe animations showing fertilization and implantation c) Appreciate reproduction in human beings.	Learners are guided in pairs, in groups or individually to name the two main processes in the reproductive process. Learners are guided in pairs, in groups or individually to use digital devices to observe animations showing fertilization and implantation. Individually, learners to write down how fertilization takes place in human beings.	How does reproduction occur in human beings? What are the names of the cells that fuse during fertilization?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	4	Living things and their environment	Fertilization and implantation	By the end of the lesson, the learner should be able to: a) Discuss the events that take place during implantation process b) Present on a table the stages, time after fertilization and the process taking place in the human body c) Appreciate reproduction in human beings.	Learners are guided in pairs, in groups or individually to read reference materials with information about implantation in human beings Learners are guided in pairs, in groups or individually to discuss the events that take place during implantation process. Learners are guided in pairs, in groups or individually to present on a table the stages, time after fertilization and the process taking place in the human body.	What happens at stage d after fertilization?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	5	Living things and	Sex related	By the end of the lesson, the learner should be able to:	Learners are guided in pairs, in groups or individually to say the meaning of the terms:	How best can we manage	Curriculum design; Integrated Science Grade 8	Oral questions Oral Report Observation	

		their environment	challenges	a) Say the meaning of the terms: hermaphrodite and intersex people b) Describe how hermaphrodite and intersex persons differ from a normal male or female c) Reflect on sex related challenges .	hermaphrodite and intersex people. Learners are guided in pairs, in groups or individually to describe how hermaphrodite and intersex persons differ from a normal male or female. Learners are guided in pairs, in groups or individually to write short notes about how to manage sex related challenges.	sex related challenges?	Pictures Charts Realia Computing devices		
12	**1**	Human Reproductive Health	Pubertal growth and development	By the end of the lesson, the learner should be able to: a) Define the term puberty. b) Identify physical, emotional and social changes during puberty in both boys and girls. c) Classify the changes as physical, emotional or social. d) Appreciate the importance of puberty.	Learners to define the term puberty. Learners are guided to identify physical, emotional and social changes during puberty in both boys and girls. Learners are guided to classify the changes as physical, emotional or social.	Which changes are common for both boys and girls? Why do you think adolescents form peer groups?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	2	Human Reproductive Health	Personal hygiene needs during puberty	By the end of the lesson, the learner should be able to: a) Identify personal hygiene that needs to be associated with the onset of puberty. b) Mention the measures for management of menstrual hygiene for personal growth. c) Suggest how re-usable sanitary towels should be taken care of. d) Appreciate personal hygiene needed during puberty.	Learners are guided to identify personal hygiene that needs to be associated with the onset of puberty. Learners are guided to mention the measures for management of menstrual hygiene for personal growth. Learners are guided to suggest how re-usable sanitary towels should be taken care of.	How do you ensure that your mouth is clean and you have a fresh breath?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	3	Human Reproductive Health	Myths and misconceptions on menstrual experience in the community.	By the end of the lesson, the learner should be able to: a) Define the term myths and misconceptions. b) Identify the stages for identifying intersex persons. c) Discuss the myths and misconceptions about menstrual experience. d) Appreciate puberty as a stage in personal growth and development.	Learners to define the term myths and misconceptions. Learners are guided to identify the stages for identifying intersex persons. In groups, learners to discuss the myths and misconceptions about menstrual experience.	What is a myth?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	

	4	Human Reproductive Health	Importance of reproductive health in the community	By the end of the lesson, the learner should be able to: a) State the importance reproductive health in the community. b) State the effects of harmful practices on reproductive health. c) Create posters condemning practices such as female genital mutilation and early marriages. d) Appreciate practices that enhances reproductive health.	Learners to state the importance reproductive health in the community. Learners to state the effects of harmful practices on reproductive health. In groups or in pairs, learners to create posters condemning practices such as female genital mutilation and early marriages.	Why is reproductive health important in the community? What are the effects of early pregnancies?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
	5	Human Reproductive Health	Myths and misconceptions about reproductive health in the community	By the end of the lesson, the learner should be able to: a) Identify myths and misconceptions about reproductive health in the community. b) Compose songs and poems with information on positive reproductive health practices. c) Appreciate puberty as a stage in personal growth and development.	Learners to identify myths posters condemning practices such as female genital mutilation and early marriages. In groups or in pairs, learners to compose songs and poems with information on positive reproductive health practices.	What are the positive reproductive health practices that we should adopt in the community?	Curriculum design; Integrated Science Grade 8 Pictures Charts Realia Computing devices	Oral questions Oral Report Observation	
13				**REVISION**					
14				**ASSESSMENT**					