

Week	Lesson	Strand	Sub-Strand	Specific Learning Outcome	Learning Experiences	Key Inquiry Question	Learning Resources	Assessment Methods	Reflection
1	1	Mixtures, Elements and Compounds.	Mixtures; Separation of mixtures (a). Simple distillation.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the procedure for separating a mixture using simple distillation.</p> <p>b) Carry out an experiment to separate a mixture of salt and water using simple distillation.</p> <p>c) Appreciate the use of simple distillation in separation of mixtures.</p>	<p>In groups, learners are guided to;</p> <p>Discuss what is simple distillation.</p> <p>Prepare the requirements for the experiment.</p> <p>State the procedure for separating a mixture of salt and water using simple distillation.</p> <p>Carry out an experiment to separate a mixture of salt and water using simple distillation.</p> <p>Record and discuss the observations from the experiment.</p>	What is a solvent, solute and solution in a mixture?	<p>Active Integrated Science pg 69-70.</p> <p>Digital devices.</p> <p>Table salt and water.</p> <p>Portable burner.</p> <p>Boiling tubes.</p> <p>Delivery tube.</p> <p>Retort stand and clamp.</p>	<p>Observation.</p> <p>Assessment rubrics.</p> <p>Practical work.</p> <p>Checklists.</p> <p>Written tests.</p> <p>Oral discussions.</p> <p>Oral questions.</p>	
	2	Mixtures, Elements and Compounds.	Mixtures. Separation of mixtures.(b) Fractional distillation.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the procedure for separating a mixture of ethanol and water.</p> <p>b) Search the internet for a video on separation of a mixture of ethanol</p>	<p>In groups, learners are guided to;</p> <p>Discuss fractional distillation as method of separating mixtures.</p> <p>List the requirements for separating a mixture using the fractional distillation.</p> <p>State the procedure for</p>	What is Fractional distillation?	<p>Active Integrated Science pg 70-72.</p> <p>Digital devices.</p> <p>Internet.</p> <p>Video clips.</p>	<p>Assessment rubrics.</p> <p>Oral questions.</p> <p>Observation schedule.</p> <p>Oral discussions.</p> <p>Written tests.</p>	

				<p>and water using fractional distillation.</p> <p>c) Appreciate the use of fractional distillation as a method of separating mixture.</p>	<p>separating a mixture using fractional distillation.</p> <p>Search the internet for videos on separating a mixture of ethanol and water using fractional distillation.</p> <p>Discuss the observation from the experiment.</p>				
	3	Mixtures, Elements and Compounds.	Mixtures: Separation method. (c). Sublimation.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the procedure for separating a mixture of sodium chloride and iodine by sublimation.</p> <p>b) Carry out an experiment to separate a mixture of sodium chloride and iodine by sublimation.</p> <p>c) Appreciate the use of sublimation in separating mixture.</p>	<p>In groups, learner are guided to;</p> <p>List and prepare the requirements for the experiment.</p> <p>State the procedure for separating a mixture of iodine and sodium chloride by sublimation.</p> <p>Follow the procedure to carry out the experiment on separating a mixture of iodine and sodium chloride by sublimation.</p> <p>Record and discuss the observations from the experiment.</p>	What is sublimation as a method of separating mixtures?	<p>Active Integrated Science pg 75-76.</p> <p>Iodine crystals.</p> <p>Sodium chloride.</p> <p>Beaker, round-bottomed flask.</p> <p>Spatula.</p> <p>Portable burner.</p> <p>Wire gauze, tripod stand.</p> <p>Digital devices.</p>	<p>Assessment rubric.</p> <p>Checklists.</p> <p>Practical work.</p> <p>Observation.</p> <p>Oral questions.</p> <p>Oral discussions.</p>	
	4	Mixtures, Elements and Compounds	Mixtures; Separation method; (d). Crystallisation	<p>By the end of the lesson, the learner should be able to;</p>	<p>In groups and pairs, learners are guided to;</p> <p>List and prepare the</p>	What is crystallisation as a method of separating	<p>Active Integrated Science pg 80-81.</p>	<p>Assessment rubrics.</p> <p>Checklists.</p> <p>Oral</p>	

		s.	on.	<p>a) State the procedure for separating a mixture by crystallisation.</p> <p>b) Carry out an experiment to separate a mixture by crystallisation.</p> <p>c) Appreciate the use of crystallisation as a method of separating mixtures.</p>	<p>requirements for separating a mixture using crystallisation.</p> <p>Outline and discuss the procedure for separating mixtures using crystallisation method.</p> <p>Carry out an experiment to separate salt from a mixture of salt and water by crystallisation.</p> <p>Record and discuss the observations from the experiment.</p>	<p>mixtures?</p> <p>What is a saturated solution?</p>	<p>Copper (II) sulphate salt. Water. Evaporating dish. Thermometer ,filter paper. Conical flask. Stirring rod,beaker.</p>	<p>questions. Practical work. Oral discussions.</p>	
2	1	Mixtures, Elements and Compounds.	Mixtures:Separating methods;(e). Evaporation.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the procedure for separating a mixture by evaporation method.</p> <p>b) Carry out an experiment to separate a mixture of salt and water by evaporation method.</p> <p>c) Appreciate the use of evaporationmethod to separate mixtures.</p>	<p>In groups, learners are guided to;</p> <p>List and prepare requirements for separating a mixture by evaporation.</p> <p>State the procedure for separating a homogenous mixture by evaporation method.</p> <p>Carry out an experiment to separate a mixture of salt and water by evaporation method.</p> <p>Record and discuss the observation from the</p>	<p>What is evaporation as a method of separating mixtures?</p>	<p>Digital devices. Teachers notes. Salt and water. Portable burner. Video clips.</p>	<p>Practical work. Observation. Written tests. Oral questions. Oral discussions. Assessment rubric.</p>	

					experiment.				
	2	Mixtures, Elements and Compounds.	Mixtures: Separation methods; (f). Solvent extraction.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the procedure for extracting oil from nuts by solvent extraction.</p> <p>b) Carry out an experiment to extract oil from nuts by solvent extraction.</p> <p>c) Appreciate the use of solvent extraction in extracting oil from nuts.</p>	<p>In groups, the learner should be able to;</p> <p>List and prepare the requirements for the experiment.</p> <p>Outline the procedure for extracting oil from nuts by solvent extraction.</p> <p>Carry out the experiment following the procedure.</p> <p>Discuss and record the observations from the experiment.</p>	<p>Why is crushing necessary in solvent extraction?</p> <p>Why is water not used as a solvent?</p> <p>Why is the extract obtained after decanting left in the sun?</p>	<p>Active Integrated Science pg 78.</p> <p>Groundnuts or simsim seeds.</p> <p>Propane or methylated spirit.</p> <p>Mortar and pestle.</p> <p>Dropper, filter paper.</p> <p>Evaporating dish.</p>	<p>Assessment rubric.</p> <p>Practical work.</p> <p>Observation</p> <p>Oral questions.</p>	
	3	Mixtures, Elements and Compounds.	Mixtures: Separating method; (g). Paper chromatography.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the procedure for separating a mixture using paper chromatography.</p> <p>b) Carry out an experiment to separate components of the extract of green leaves using paper chromatography.</p>	<p>In groups and pairs, learners are guided to;</p> <p>List and prepare the requirements for separating components of an extract using paper chromatography.</p> <p>Outline the steps for separating components of an extract of green leaves using paper chromatography.</p> <p>Conduct an experiment to separate the components of</p>	<p>What is paper chromatography?</p> <p>How is paper chromatography used to separate mixtures?</p>	<p>Active Integrated Science pg 76-77.</p> <p>Mortar and pestle.</p> <p>Beakers.</p> <p>Knife, fresh green leaves.</p> <p>Filter papers.</p> <p>Droppers.</p> <p>Propane.</p>	<p>Practical work.</p> <p>Assessment rubric.</p> <p>Checklists.</p> <p>Oral discussion.</p> <p>Observation .</p>	

				c) Acknowledge the applications of chromatography in our lives.	an extract of green leaves using paper chromatography. Draw the appearance of the filter paper and discuss the observations from the experiment.				
	4	Mixtures, Elements and Compounds.	Mixtures: Applications of Paper Chromatography.	By the end of the lesson, the learner should be able to; a) State the applications of paper chromatography in cosmetic, sport, pharmaceutical and food industry. b) Search the internet for information on the application of paper chromatography in cosmetic, sport, food and pharmaceutical industry. c) Appreciate the importance of paper chromatography in our daily lives.	In groups and pairs, learners are guided to: Search the internet for information on the application of paper chromatography in food, sport, cosmetic and pharmaceutical industries. Discuss and present the applications of paper chromatography in food, sport, pharmaceutical and cosmetic industry.	What are the applications of paper chromatography in sport, food, cosmetic and pharmaceutical industries?	Active Integrated Science pg 77. Teacher's Notes. Internet. Digital devices.	Assessment rubrics. Oral discussion. Oral questions.	
3	1	Mixtures, Elements and Compound	Mixtures.	By the end of the lesson, the learner should be able to;	In groups, learners are guided to: Outline the applications of	How is the separation of mixtures important in	Active Integrated Science pg 82-83.	Assessment rubrics. Written tests. Oral	

		s.		<p>a) Outline the applications of methods of separating mixtures in real life</p> <p>b) Discuss the applications of methods of separating mixtures in real life.</p> <p>c) Appreciate the use of different methods of separating mixtures in day to day life.</p>	<p>the different methods of separating mixtures in our day to day life.</p> <p>Discuss and present the applications of the different methods of separating mixtures in day to day life.</p> <p>Search the internet for information on applications of the different methods of separating mixtures in our day to day life.</p>	day to day life?	Digital devices. Internet. Teacher's Notes.	discussion. Oral questions.	
	2	Mixtures, Elements and Compound s.	Acids, Bases and Indicators.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify acids and bases using litmus paper.</p> <p>b) Carry out simple experiments to test household solutions if they are acidic or basic using litmus paper.</p> <p>c) Classify the household solutions as either basic or acidic.</p> <p>d) Enjoy carrying out the experiments.</p>	<p>In groups, learners are guided to;</p> <p>Use litmus paper to test if household solutions are acidic or basic.</p> <p>Record their observations in books and explain them.</p> <p>Classify the household solutions as either basic or acidic.</p>	How do you know a substance or solution is acidic or basic using a litmus paper?	Active Integrated Science. Litmus Papers. Household solutions	Practical work. Observation. Written tests Oral questions Assessment rubric. Oral questions	
	3	Mixtures, Elements	Acids, Bases and	By the end of the lesson, the learner should be able	In groups, learners are	How do you prepare an	Active Integrated	Practical work.	

		and Compound s.	Indicators.	to; a) Outline the procedure for preparing an acid-base indicator from plant extracts. b) Prepare an acid-base indicator from plant extracts. c) Enjoy preparing an acid-base indicator from plant extracts.	guided to: State the procedure for preparing an acid-base indicators from plant extracts. Discuss the procedure for preparing acid-base indicators from plant extracts. Carry out an experiment to prepare an acid-base indicator from plant extracts and dispose off laboratory waste responsibly.	acid-base indicator from plant extracts?	Science pg 85. Teacher's Notes. Fresh green leaves. Mortar and pestle. Propane. Beaker.	Assessment rubric. Observation. Oral discussion. Checklists.	
	4	Mixtures, Elements and Compound s.	Acids, Bases and Indicators.	By the end of the lesson, the learner should be able to; a) Use acid-base indicator from plant extracts to test the household solutions if they are acidic or basic. b) Classify the household solutions as either basic or acidic. c) Enjoy carrying out the experiment.	In groups, learners are guided to: Carry out simple experiments to test common household solutions if they are basic or acidic using the acid-base indicator from plant extracts. Record their observations and classify the household solutions as either basic or acidic.	How do you identify a substance as basic or acidic using an acid-base indicator from plant extract?	Active Integrated Science pg 86-87. Acid-base indicator from plant extract. Household solutions.	Practical work. Assessment rubric. Checklists. Observation.	
4	1	Mixtures, Elements and	Acids, Bases and	By the end of the lesson, the learner should be able	In groups, learners are guided to;	What are the physical properties of	Internet. Household solutions	Observation. Practical work.	

		Compound s.	Indicators.	to; a) Identify the physical properties of acids. b) Describe the physical properties of acids. c) Carry out activities to investigate the physical properties of acids. d) Acknowledge the physical properties of acids.	Brainstorm and present the physical properties of acids. Carry out activities to investigate the physical properties of acids. Describe the physical properties of acids. Search the internet for information on the physical properties of acids.	acids?	Digital devices. Active Integrated Science. Litmus paper. Teacher's notes.	Checklists. Assessment rubric. Written tests. Oral questions.	
	2	Mixtures, Elements and Compound s.	Acids, Bases and Indicators.	By the end of the lesson, the learner should be able to; a) Identify the physical properties of bases b) Describe the physical properties of bases. c) Carry out activities to investigate the physical properties of bases d) Acknowledge the physical properties of bases.	In groups, learners are guided to: Brainstorm and present the physical properties of bases. Carry out activities to investigate the physical properties of bases. Describe the physical properties of bases. Search the internet for information on the physical properties of bases.	What are the physical properties of bases?	Teacher's Notes. Active Integrated Science. Internet. Digital devices. Household solutions. Litmus paper.	Practical work. Observation. Written tests. Assessment rubric. Oral questions. Oral discussion.	
	3	Mixtures, Elements and Compound	Acids, Bases and Indicators.	By the end of the lesson, the learner should be able to; a) Outline the	In groups, learners are guided to: Brainstorm and present the applications of acids in real	What are the applications of acids in our daily	Active Integrated Science pg 92-93.	Assessment rubrics. Oral questions	

		s.		<p>applications of acids in real life.</p> <p>b) Discuss the uses of acids in real life.</p> <p>c) Search the internet for information on applications of acids in real life.</p> <p>d) Appreciate the uses of acids in real life.</p>	<p>life.</p> <p>Discuss and present the uses of acids in real life.</p> <p>Search the internet or print media for information on the applications or uses of acids in our daily lives and present their findings.</p>	lives?	Internet. Digital devices. Teacher's Notes.	Written tests. Oral discussion.	
	4	Mixtures, Elements and Compounds.	Acids, Bases and Indicators.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify the applications of bases in our daily life.</p> <p>b) Search the internet or print media for the applications of bases in our daily life.</p> <p>c) Appreciate the uses of bases in our daily life.</p>	<p>Individually or in pairs, learners are guided to:</p> <p>Explore the applications of bases in our daily life from the internet or print media.</p> <p>Discuss the applications of bases in our daily life.</p>	What are the uses of bases in our day to day life?	Internet. Digital devices. Active Integrated Science pg 93-94. Teacher's Notes.	Written tests. Oral questions Assessment rubrics. Checklists.	
5	1	Mixtures, Elements and Compounds.	Acids, Bases and Indicators.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the applications of indicators in our daily life.</p>	<p>In groups, pairs, learners are guided to:</p> <p>Explore the applications of indicators from the print media or internet.</p> <p>Outline the applications of</p>	What are the applications of indicators in our daily life?	Active Integrated Science pg 94-95. Internet. Digital devices. Teacher's	Written tests. Assessment rubric. Oral questions.	

				<p>b) Search the internet or print media for the applications of indicators in our daily life.</p> <p>c) Acknowledge the applications of indicators in our daily life.</p>	<p>indicators.</p> <p>Discuss the applications of indicators in our daily life.</p>		Notes.		
	2	Mixtures, Elements and Compounds.	Acids, Bases and Indicators.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Attempt questions on the sub-strand; Acids, Bases and Indicators.</p>	<p>In pairs or individually, learners are guided to;</p> <p>Answer the questions on the sub-strand: Acids, Bases and Indicators.</p>		<p>Assessment books.</p> <p>Active Integrated Science pg 95-96.</p> <p>Teacher's Assessment Questions.</p>	Written tests. Assessment rubric.	
	3	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify the parts of the human male and female reproductive systems.</p> <p>b) Draw and label the parts of the male and female reproductive system.</p> <p>c) Appreciate the parts of the male and female</p>	<p>In groups, pairs, individually, learners are guided to;</p> <p>Mention some of the parts of human male and female reproductive system.</p> <p>Use charts or pictures to observe and identify the parts of the human male and female reproductive systems.</p> <p>Draw and label the parts of the male and female</p>	Which parts of the male and female reproductive system do you know?	<p>Active Integrated Science.</p> <p>Pictures.</p> <p>Charts.</p> <p>Teacher's Notes.</p> <p>Digital devices.</p>	Written tests. Oral questions. Assessment rubrics. Checklists.	

				reproductive system.	reproductive systems.				
	4	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the functions of the parts of the male reproductive system.</p> <p>b) Describe the functions of the parts of the male reproductive system.</p> <p>c) Acknowledge the functions of the parts of the male reproductive system.</p>	<p>In groups and pairs, learners are guided to:</p> <p>Brainstorm and present the functions of some of the parts of male reproductive system.</p> <p>Search the internet for information on the functions of parts of male reproductive system (penis, testis and urethra)</p> <p>Discuss the functions of the parts of male reproductive system and share.</p>	What are the functions of the parts of male reproductive system?	Digital devices. Teacher's Notes. Active Integrated Science. Internet.	Written tests. Oral questions. Oral discussion. Assessment rubric. Checklists.	
6	1	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the functions of the parts of the female reproductive system.</p> <p>b) Describe the functions of the female reproductive system.</p> <p>c) Acknowledge the functions of the female reproductive system.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Brainstorm and present on the functions of the female reproductive system (vagina, cervix, uterus, oviduct and ovaries).</p> <p>Search the internet for information on the functions of the vagina, cervix, uterus, oviduct and ovaries in the human reproductive system.</p> <p>Discuss the functions of the parts of the female reproductive system</p>	What are the functions of the parts of the female reproductive system?	Teacher's Notes. Internet. Digital devices. Active Integrated Science. Pictures.	Written tests. Oral questions. Oral discussion. Assessment rubric. Checklists.	

					(vagina, uterus, cervix, uterus, oviduct, ovaries)				
	2	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the physical changes that take place in boys during adolescence.</p> <p>b) Discuss the physical changes that take place in boys during adolescence.</p> <p>c) Search the internet for information on physical changes that take place in boys during adolescence.</p> <p>d) Acknowledge the physical changes that take place in boys during adolescence.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Brainstorm and present on the physical changes that take place in boys during adolescence.</p> <p>Search the internet or print media for information on the physical changes that take place in boys during adolescence.</p> <p>Discuss the physical changes that take place in boys during adolescence and share.</p>	What are the physical changes that take place in boys during adolescence?	Internet. Teacher's Notes. Active Integrated Science. Digital devices.	Written tests. Oral discussion. Oral questions. Assessment rubrics.	
	3	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the physical changes that take place in girls during adolescence.</p> <p>b) Describe the physical</p>	<p>In groups and pairs, learners are guided to:</p> <p>Brainstorm and present on the physical changes that take place in girls during adolescence.</p> <p>Search the internet for information on physical</p>	What are the physical changes that take place in girls during adolescence?	Teacher's Notes. Active Integrated Science. Internet. Digital devices. Print media.	Written tests. Assessment rubrics. Oral questions. Oral discussion.	

				<p>changes that take place in girls during adolescence.</p> <p>c) Search the internet for information on physical changes that take place in girls during adolescence.</p> <p>d) Acknowledge the physical changes that take place in girls during adolescence.</p>	<p>changes that take place in girls during adolescence.</p> <p>Discuss the physical changes that take place in girls during adolescence.</p>				
	4	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the physical developmental challenges during adolescence.</p> <p>b) Search the internet for information on physical developmental challenges during adolescence and coping mechanism.</p> <p>c) Acknowledge the physical developmental challenges during</p>	<p>In groups, learners are guided to;</p> <p>Search for information on physical developmental challenges during adolescence and their coping mechanism.</p> <p>Discuss and present the physical developmental challenges faced by both girls and boys during adolescence and how to deal with them.</p>	What are the physical developmental challenges during adolescence?	Internet. Digital devices. Teacher's Notes. Print media.	Written tests. Assessment rubric. Oral questions. Oral discussion.	

				adolescence.					
7	1	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the social developmental challenges during adolescence.</p> <p>b) Search the internet for information on social developmental challenges during adolescence.</p> <p>c) Acknowledge the social developmental challenges during adolescence.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Share their experiences on the social developmental challenges that they face in adolescence.</p> <p>Search the internet for information on social developmental challenges during adolescence and coping mechanism.</p> <p>Discuss the social developmental challenges during adolescence and how to manage them.</p>	<p>What are the social developmental challenges during adolescence?</p> <p>How do you cope with the social developmental challenges during adolescence?</p>	Internet. Digital devices. Teacher's Notes.	Assessment rubric. Oral questions. Oral discussion. Written tests.	
	2	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the emotional developmental challenges during adolescence.</p> <p>b) Search the internet for information on the emotional developmental challenges during adolescence.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Share their experiences on the emotional changes they undergo in adolescence.</p> <p>Search the internet for information on emotional developmental challenges during adolescence.</p> <p>Discuss and present the emotional changes that occur during adolescence</p>	<p>What are the emotional changes that take place during adolescence?</p>	Teacher's Notes. Internet. Digital devices.	Assessment rubric. Written tests. Oral questions. Oral discussion.	

				c) Acknowledge the emotional changes that take place during adolescence.	and how to cope with them.				
	3	Living Things and Their Environment.	Human Reproductive System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline a plan to manage developmental challenges during adolescence.</p> <p>b) Develop a plan to manage developmental challenges during adolescence.</p> <p>c) Appreciate the ways of managing the developmental challenges during adolescence.</p>	<p>In groups and pairs, learners are guided to:</p> <p>Search internet for information on how to manage developmental challenges and changes during adolescence.</p> <p>Discuss and develop a plan to manage developmental challenges during adolescence.</p> <p>Prepare posters and present them in class.</p>	How can developmental changes be managed during adolescence?	Internet. Digital devices. Posters.	Assessment rubrics. Oral discussions. Oral questions. Oral presentations. Checklists. Observation schedule.	
	4	Living Things and Their Environment.	Human Reproductive System: Assessment.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Attempt questions on the sub-strand; Human reproductive system.</p>	<p>In pairs or individually, learners are guided to:</p> <p>Answer questions on the sub-strand; Human Reproductive System.</p>		Assessment books. Teacher's Assessment Questions.	Assessment rubric. Written tests.	
8	MID-TERM BREAK								
9	1	Living Things and	Human Excretory	By the end of the lesson, the learner should be able	In groups and pairs, learners are guided to:	What is Excretion?	Active Integrated	Written tests. Observation.	

		Their Environment.	System.	<p>to;</p> <p>a) Define the term Excretion.</p> <p>b) List the components of the excretory system.</p> <p>c) Identify the parts of the human skin.</p> <p>d) Draw and label the identified parts of the human skin.</p> <p>e) Appreciate the parts of the human skin.</p>	<p>Search the internet or relevant textbook for the meaning of excretion and the components of excretory system and present.</p> <p>Study the charts, picture or photo of the human skin and identify the parts of the human skin.</p> <p>Draw and label the parts of the human skin in their exercise books.</p>	<p>What are the components of the human excretory system?</p> <p>which parts of the skin do you know?</p>	<p>Science pg 110.</p> <p>Pictures.</p> <p>Charts.</p> <p>Digital devices.</p> <p>Dictionary.</p>	<p>Checklists.</p> <p>Assessment rubric.</p> <p>Oral questions.</p>	
	2	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Use the hand lens to observe the back of the hand.</p> <p>b) Identify the hairs and the sweat pores.</p> <p>c) Search the internet for videos on the structure of the human skin.</p> <p>d) Enjoy observing the external parts of the skin using the hand lens</p>	<p>Individually, or in groups and pairs, learners are guided to:</p> <p>Use a hand lens to observe the external parts of the human skin (hair and sweat pores)</p> <p>Identify and describe the hairs and sweat pores as observed through the hand lens and present.</p> <p>Use digital devices to search for a video on the structure of the human skin and discuss their observation.</p>	<p>Where are the sweat pores and hair located in the skin?</p> <p>Which layers make up the skin?</p>	<p>Active Integrated Science pg 111.</p> <p>Hand lens.</p> <p>Digital devices.</p> <p>Internet.</p> <p>Video clips.</p>	<p>Practical work.</p> <p>Observation.</p> <p>Written tests.</p> <p>Oral questions.</p>	

	3	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the functions of the parts of the human skin.</p> <p>b) Describe the functions of the parts of the human skin.</p> <p>c) Appreciate the functions of the parts of the human skin.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Brainstorm on the functions of the parts of the human skin; (Epidermis, sweat pores, Hair, Sweat glands, dermis)</p> <p>Search the internet or textbook for information on the functions of the parts of the human skin.</p> <p>Discuss and present their findings on the functions of the parts of the human skin.</p>	What are the functions of the different parts of the human skin?	<p>Active Integrated Science pg 111-112.</p> <p>Chart.</p> <p>Model of human skin.</p> <p>Digital devices.</p> <p>Internet.</p> <p>Teacher's Notes.</p>	<p>Written tests.</p> <p>Assessment rubrics.</p> <p>Oral questions.</p> <p>Oral discussion.</p> <p>Checklists.</p>	
	4	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the functions of the human skin.</p> <p>b) Identify the waste products excreted through the human skin.</p> <p>c) Carry out an activity to determine the waste products excreted by human skin.</p> <p>d) Acknowledge the waste products</p>	<p>In groups and pairs, learners are guided to:</p> <p>Outline the other functions of the human skin.</p> <p>Mention the waste products excreted by the human skin.</p> <p>Carry out an activity (running around the field or jogging) outside the class to determine the waste products excreted by the human skin.</p> <p>Discuss the main components of the human sweat.</p>	<p>Which waste products are excreted through the human skin?</p> <p>What are the other functions of the human skin?</p>	<p>Active Integrated Science pg 112-113.</p> <p>School Field.</p> <p>Teacher's Notes.</p>	<p>Practical Activity.</p> <p>Observation.</p> <p>Oral questions.</p> <p>Written tests.</p>	

				excreted by the skin.					
10	1	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify the parts of the Urinary system.</p> <p>b) Draw and label the different parts of the urinary system.</p> <p>c) Acknowledge the parts of the urinary system.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Study the chart or picture showing the urinary system.</p> <p>Identify the parts of the urinary system from the chart or pictures presented.</p> <p>Discuss the position of each of the parts of the urinary system.</p> <p>Draw and label the parts of the urinary system in their books and charts.</p>	Which parts form the urinary system?	Active Integrated Science pg 113. Pictures. Chart showing the urinary system. Digital devices.	Oral questions. Written tests. Self and peer assessment. Assessment rubric. Checklists.	
	2	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify the external structure of the kidney.</p> <p>b) Describe the external structure of the kidney.</p> <p>c) Search the internet for a video on the external structure of the kidney.</p> <p>d) Acknowledge the functions of the external parts of the kidney.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Study the chart/model and animation showing the external structure of the kidney.</p> <p>Discuss the functions of the external parts of the kidney.</p> <p>Draw and label the external parts of the kidney.</p> <p>Search the internet for a video on the external</p>	<p>Which blood vessels serve the kidney?</p> <p>What is the function of each of the blood vessels?</p>	Active Integrated Science pg 114-115. Chart/Model of kidney. Digital devices. Video clips.	Assessment rubric. Written tests Oral questions. Oral discussion. Observation.	

					structure of the kidney.				
	3	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify the components of the urine.</p> <p>b) Discuss the waste products excreted through the kidneys.</p> <p>c) Search the internet for information on the contents of human urine.</p> <p>d) Acknowledge the waste product excreted through the kidney.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Mention the waste product excreted through the kidney.</p> <p>Search the contents of human urine from the internet.</p> <p>Discuss their findings from the internet and present in class.</p>	<p>Which waste product is excreted by the kidney?</p> <p>What are the main components of urine?</p>	Active Integrated Science pg 115. Digital devices. Internet. Teacher's Notes.	Oral questions. Oral presentation. Written tests. Assessment rubric.	
	4	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify the common kidney disorders.</p> <p>b) Discuss the causes of the kidney disorders.</p> <p>c) Search the internet for information on the kidney disorders and their causes.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Use digital devices to search the internet for common kidney disorders and their causes.</p> <p>Describe the kidney disorders.</p> <p>Discuss the kidney disorders and their causes.</p> <p>Prepare online posters on</p>	<p>What are the common kidney disorders?</p> <p>What are the causes of kidney disorders?</p>	Active Integrated Science pg 115-116. Internet. Digital devices. Posters. Teacher's Notes. Picture of the kidney stones.	Observation. Assessment rubric. Checklists. Oral questions. Written tests.	

				d) Acknowledge the kidney disorders and their causes.	the kidney disorders and their causes and share online.				
11	1	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the ways of preventing kidney disorders.</p> <p>b) Discuss the ways of preventing kidney disorders.</p> <p>c) Prepare posters on ways of preventing kidney disorders.</p> <p>d) Appreciate the ways of preventing kidney disorders.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Study the pictures in learner's book and state the ways of preventing kidney disorders.</p> <p>Search the internet for additional information on the ways of preventing kidney disorders.</p> <p>Discuss the ways of preventing kidney disorders.</p> <p>Prepare educative posters both online and physical on ways of preventing kidney disorders.</p>	How can we prevent kidney disorders?	Active Integrated Science pg 117-118. Pictures. Digital devices. Internet. Teacher's Notes.	Assessment rubric. Observation. Oral questions. Project. Written tests.	
	2	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Identify some of the healthy lifestyles that promote skin health.</p> <p>b) Discuss the healthy lifestyles that promote skin health.</p> <p>c) Prepare posters</p>	<p>In groups and pairs, learners are guided to;</p> <p>Brainstorm and present on the healthy lifestyles that promote skin health.</p> <p>Search for information from the internet or textbook on the healthy lifestyles that promote skin health.</p> <p>Discuss the healthy lifestyle</p>	What lifestyle should we adopt to keep the skin healthy?	Active Integrated Science pg 118. Internet. Digital devices. Teacher's Notes. Posters.	Assessment rubrics. Written tests. Oral questions. Checklists. Rating scale.	

				<p>showing healthy lifestyles that promote skin health.</p> <p>d) Desire to practice healthy lifestyles to promote skin health.</p>	<p>habits that promote skin health.</p> <p>Prepare educative posters on healthy lifestyle habits that promote skin health using digital devices.</p>				
	3	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) State the healthy lifestyles that promote healthy kidneys.</p> <p>b) Discuss the healthy lifestyles that promote healthy kidneys.</p> <p>c) Prepare posters on the healthy lifestyles that promote kidney health.</p> <p>d) Desire to practice the healthy lifestyles to promote healthy kidneys.</p>	<p>In groups and pairs, learners are guided to;</p> <p>Brainstorm and present on the healthy lifestyle that promote healthy kidneys.</p> <p>Search for information from the internet or textbook on the healthy lifestyles that promote healthy kidneys.</p> <p>Discuss the healthy lifestyles that promote healthy kidneys.</p> <p>Prepare posters showing the healthy lifestyles that promote healthy kidneys.</p>	Which healthy lifestyles habits can we practice to promote healthy kidneys?	Active Integrated Science pg 119. Internet. Digital devices. Posters. Teacher's Notes.	Written tests. Assessment rubric. Checklists. Oral questions. Oral discussion.	
	4	Living Things and Their Environment.	Human Excretory System.	<p>By the end of the lesson, the learner should be able to;</p> <p>a) Outline the format of daily log on activities that promote skin and kidney health.</p>	<p>In groups, individually or in pairs, learners are guided to;</p> <p>Discuss on how to prepare a daily log on activities that promote skin and kidney health.</p> <p>Develop a daily log on the</p>	Why is it important to develop and maintain a daily log on activities that promote skin and kidney	Internet. Exercise books. Digital devices. Teacher's Notes. Active	Assessment rubrics. Checklists. Portfolios. Rating scale. Observation schedule.	

				b) Develop and maintain a daily log on activities that promote skin and kidney health. c) Develop discipline in maintaining a daily log on activities that promote skin and kidney health.	activities that promote skin and kidney health.	health?	Integrated Science pg 117-119.		
12	1	Living Things and Their Environment.	Human Excretory System: Assessment.	By the end of the lesson, the learner should be able to; a) Attempt assessment questions on the sub-strand: Human Excretory System.	In pairs or individually, learners are guided to; Answer the questions on the sub-strand: Human Excretory System.		Assessment books. Active Integrated Science pg 122-123. Teacher's Assessment Questions.	Written tests. Assessment rubric.	
	2 -4	COMPLETION AND ASSESSMENT OF LEARNER'S PROJECTS.							
13	END OF TERM ASSESSMENT								
14	CLOSURE OF SCHOOL								