2025 RATIONALIZED GRADE 7 SPOTLIGHT INTERGRATED SCIENCE SCHEMES OF WORK TERM 2

TEACHER'S NAME……..SCHOOL…….TERM…TWO..YEAR …

Week	Lesson	*Strand*	Sub Strand	Specific Learning Outcomes	Learning/ Teaching Experiences	Key Inquiry Questions	Learning Resources	Assessment Methods	Ref
1	1	***MIXTURES, ELEMENTS AND COMPOUNDS***	Mixtures Crystallization	By the end of the lesson, the learner should be able to: a) Separate copper (II) sulphate crystals from copper (II) sulphate solution using crystallization method b) Write short notes about separating mixtures by crystallization method c) Appreciate the applications of separating mixtures in day-to-day life	Learners are guided in pairs, in groups or individually to: Separate copper (II) sulphate crystals from copper (II) sulphate solution using crystallization method Write short notes about separating mixtures by crystallization method Draw the set up showing apparatus set up for crystallization Discuss the applications of separating mixtures by crystallization in day-to-day life	What is the color of the solution formed when copper (II) sulphate crystals are added to water?	Course book Basic Laboratory Apparatus Equipment Selected specimens Ice Candle wax Water/salty water ***Spotlight Integrated Science Learner's Book Grade 7 pg. 66-67***	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and Answers	
	2	***MIXTURES, ELEMENTS AND COMPOUNDS***	Mixtures Sublimation	By the end of the lesson, the learner should be able to: a) Separate a mixture of iodine and common salt using sublimation method b) Write short notes about separating mixtures by sublimation method c) Appreciate the applications of separating mixtures in day-to-day life	Learners are guided in pairs, in groups or individually to: Separate a mixture of iodine and common salt using sublimation method Write short notes about separating mixtures by sublimation method Draw the set up showing separation of a mixture of iodine and sodium chloride	What type of mixture is separated by sublimation method?	Basic Laboratory Apparatus Equipment Selected specimens Candle wax Water ***Spotlight Integrated Science Learner's Book Grade 7 pg. 67-68***	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and Answers	
	3	***MIXTURES, ELEMENTS AND COMPOU***	Mixtures Use of a	By the end of the lesson, the learner should be able to: a) Separate a mixture	Learners are guided in pairs, in groups or individually to: Separate a mixture of	What type of mixture is separated	Course book Basic Laboratory Apparatus	Written Test Assessment Rubrics	

		NDS	magnet	of sulphur and iron fillings using a magnet b) Write short notes about separating mixtures by use of a magnet c) Appreciate the applications of separating mixtures in day-to-day life	sulphur and iron fillings using a magnet Write short notes about separating mixtures by use of a magnet Discuss the applications of separating mixtures by use of a magnet in day-to-day life	by use of a magnet?	Sieve Magnet ***Spotlight Integrated Science Learner's Book Grade 7 pg. 69***	Checklist Anecdotal Records Oral Questions and Answers	
	4	***MIXTURES, ELEMENTS AND COMPOUNDS***	Mixtures Solvent extraction	By the end of the lesson, the learner should be able to: a) Extract oil from groundnuts seeds using solvent extraction method b) Write short notes about extracting oil from seeds using solvent extraction method c) Appreciate the applications of separating mixtures in day-to-day life	Learners are guided in pairs, in groups or individually to: Extract oil from groundnuts seeds using solvent extraction method Write short notes about extracting oil from seeds using solvent extraction method Discuss the applications of extracting oil by solvent extraction method in day-to-day life	Why should you use propane instead of water in solvent extraction?	Course book Basic Laboratory Apparatus Water Sieve Magnet ***Spotlight Integrated Science Learner's Book Grade 7 pg. 69-70***	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and Answers	
2	1	***MIXTURES, ELEMENTS AND COMPOUNDS***	Mixtures Paper chromatography	By the end of the lesson, the learner should be able to: a) Separate the components of black inks using paper chromatography method b) Write short notes about separating components by paper chromatography c) Appreciate the applications of separating mixtures	Learners are guided in pairs, in groups or individually to: Separate the components of black inks using paper chromatography method Write short notes about separating components by paper chromatography Discuss the applications of chromatography in day-to-day life	Which type of mixture is separated by chromatography?	Course book Basic Laboratory Apparatus Equipment Selected specimens Water ***Spotlight Integrated Science Learner's Book Grade 7 pg. 70-72***	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and Answers	

				in day-to-day life					
	2	***MIXTURES, ELEMENTS AND COMPOUNDS***	Mixtures Application of methods of separating mixtures	By the end of the lesson, the learner should be able to: a) Discuss with peers, the applications of separating mixtures in day-to-day life b) Draw the table summarizing application of methods of separating mixtures in day-to-day life c) Desire to separate mixture using these methods	Learners are guided in pairs, in groups or individually to: Discuss with peers, the applications of separating mixtures in day-to-day life Draw the table summarizing application of methods of separating mixtures in day-to-day life Work on assessment activity 2.1	What are the uses of different methods of separating mixtures in day-to -day life?	Course book Basic Laboratory Apparatus Water/salty water Sieve Magnet **Spotlight Integrated Science Learner's Book Grade 7 pg. 72-75**	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and Answers	
	3	***MIXTURES, ELEMENTS AND COMPOUNDS***	Acids, Bases and Indicators Using plant extracts as acid-base indicators	By the end of the lesson, the learner should be able to: a) Search the internet to find out what happens when plant extracts are added to acids and bases b) Record their findings of what happens when plant extracts are added to acids and bases c) Enjoy sharing their finding with other members of the class	Learners are guided in pairs, in groups or individually to: Search the internet to find out what happens when plant extracts are added to acids and bases Record their findings of what happens when plant extracts are added to acids and bases	What happens when plant extracts are added to acids and bases?	Course book Basic Laboratory Apparatus Equipment Selected specimens Digital devices ***Spotlight Integrated Science Learner's Book Grade 7 pg. 76***	Assessment Rubrics Checklist Oral Questions and Answers Written Test	
	4	***MIXTURES, ELEMENTS AND COMPOUNDS***	Acids, Bases and Indicators Using plant extracts	By the end of the lesson, the learner should be able to: a) Prepare and use plant extract indicator to classify common house hold solutions as either acidic or basic b) Classify different	Learners are guided in pairs, in groups or individually to: Prepare and use plant extract indicator to classify common house hold solutions as either acidic or basic Classify different house-hold solutions as either	How can you identify a substance as being acidic or basic?	Course book Basic Universal indicator pH scale and pH chart ***Spotlight Integrated Science***	Written questions Observation Oral questions Role Plays	

			as acid-base indicators	house-hold solutions as either acidic or basic using indicators c) Appreciate the applications of acids and bases in real life	acidic or basic using indicators by filling in the table Discuss the observations with other members of the class		***Learner's Book Grade 7 pg. 76-77***		
3	1	***MIXTURES, ELEMENTS AND COMPOUNDS***	Acids, Bases and Indicators Commercial indicators	By the end of the lesson, the learner should be able to: a) Identify common commercial indicators b) Use litmus papers or litmus solution to classify some household substances as either acidic or basic c) Appreciate the applications of acids and bases in real life	Learners are guided in pairs, in groups or individually to: Identify common commercial indicators Use litmus papers or litmus solution to classify some household substances as either acidic or basic Classify litmus solution or paper in a table as acidic, basic or neutral	Which example scan you give of common commercial indicators?	Course book Universal indicator pH scale and pH chart Antacid tablets Detergents ***Spotlight Integrated Science Learner's Book Grade 7 pg. 78-79***	Written questions Observation Oral questions Role Plays	
	2	***MIXTURES, ELEMENTS AND COMPOUNDS***	Acids, Bases and Indicators Commercial indicators	By the end of the lesson, the learner should be able to: a) Use methyl orange and phenolphthalein to classify household substances as either acidic or basic b) Classify methyl orange and phenolphthalein solutions as either acidic or basic using indicators c) Appreciate the applications of acids and bases in real life	Learners are guided in pairs, in groups or individually to: Use methyl orange and phenolphthalein to classify household substances as either acidic or basic Draw a table and classify methyl orange and phenolphthalein solutions as either acidic or basic using indicators	Is methyl orange basic, acidic or neutral?	Course book Universal indicator pH scale and pH chart Common fruits Fertilizers Detergents ***Spotlight Integrated Science Learner's Book Grade 7 pg. 79-80***	Written questions Observation Oral questions Role Plays	
	3	***MIXTURE***	Acids,	By the end of the	Learners are guided in	What is the	Universal	Written	

		S, ELEMENTS AND COMPOUNDS	Bases and Indicators Commercial indicators	lesson, the learner should be able to: a) Search for videos and animations showing different colors of acid-base indicators in different solutions b) Write down the indicators and their colors in acidic, basic and neutral solutions c) Have fun sharing and discussing their results with other groups	pairs, in groups or individually to: Search for videos and animations showing different colors of acid-base indicators in different solutions Write down the indicators and their colors in acidic, basic and neutral solutions Share and discuss their results with other groups	color of litmus in a basic solution? What is the color of phenolphthalein in an acidic solution?	indicator pH scale and pH chart Antacid tablets Detergents ***Spotlight Integrated Science Learner's Book Grade 7 pg. 80***	questions Observation Oral questions Role Plays	
	4	***MIXTURES, ELEMENTS AND COMPOUNDS***	Acids, Bases and Indicators Determining the strength of acids and bases using universal indicator	By the end of the lesson, the learner should be able to: a) Identify the colors expected for different pH values b) Draw a table indicating the pH values and colors and write short notes on pH c) Appreciate the pH scale chart and the universal indicator paper	Learners are guided in pairs, in groups or individually to: Study the universal indicator and pH color chart provided by the teacher Identify the colors expected for different pH values Draw a table indicating the pH values and colors and write short notes on pH	What is a universal indicator? What is the definition of pH?	Course book Universal indicator pH scale and pH chart ***Spotlight Integrated Science Learner's Book Grade 7 pg. 81***	Written questions Observation Oral questions Role Plays	