1	**OPENING AND RECEIVING LEARNERS**								
2	**1**	***ELEMENTS,MIXTURES AND COMPOUNDS***	**Introduction to Matter**	By the end of the lesson learner should be able to: a)define matter b)identify some matter. c)watch a video clip on matter state in our day to day life	The learner is guided to: •perform simple experiments on projectperties of the different states of matter (volume e, shape, density, compressibility and ability to flow) • use digital devices to search, play and observe videos and animations sho wing the projectperties of different states of matter (in relation to volume, shape, density, compressibility and ability to flow	w do the movement of particles in matter affect its physical projectperties	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 1-2	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	2	***ELEMENTS,MIXTURES AND COMPOUNDS***	**Classification of matter**	By the end of the lesson learner should be able to: a) describe projectperties of the different states of matter, b) appreciate the applications of change of state in our day to day life	The learner is guided to : • perform simple experiments on projectperties of the different states of matter (volum e, shape, density, compressibility and ability to flow),	w do the movement of particles in matter affect its physical projectperties	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices •	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations •	

					• perform experiments to demonstrate diffusion in liquids (use of water and potassium manganate (VII), • c arry out simple experiments to demonstrate physical changes, temporary chemical changes and perma nent changes of substances, • discuss the applications of change of state of matter in day - to - day life (refrigerators, ice - cream vendors, fog formation, among others), • where necessary, use digital devices to search, play and observe videos and animations sho wing the projectperties of different states of matter (in relation to volume, shape, density, compressibility and ability to flow		Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 3-4	Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	3	***ELEMENTS,MIXTURES AND COMPOUNDS***	**Projectperties of solids**	By the end of the lesson learner should be able to: a) describe projectperties of the different states of matter, b) demonstrate diffusion in liquids, c) distinguish between temporary and permanent changes	The learner is guided to : • perform simple experiments on projectperties of the different states of matter (volum e, shape, density, compressibility and ability to flow), • perform experiments to demonstrate	w do the movement of particles in matter affect its physical projectperties	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments •	

				in substances , d) outline applications of change of state of matter in day - to - day life, e) appreciate the applications of change of state in our day to day life	diffusion in liquids (use of water and potassium manganate (VII), • c arry out simple experiments to demonstrate physical changes, temporary chemical changes and perma nent changes of substances, • discuss the applications of change of state of matter in day - to - day life (refrigerators, ice - cream vendors, fog formation, among others), • where necessary, use digital devices to search, play and observe videos and animations sho wing the projectperties of different states of matter (in relation to volume, shape, density, compressibility and ability to flow		Science Learner's Book Grade 8 pg. 7	Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	4	***ELEMENTS,MIXTURES AND COMPOUNDS***	**Projectperties of liquids**	By the end of the lesson learner should be able to: a) describe projectperties of the different states of matter, b) demonstrate diffusion in liquids, c) distinguish between temporary and permanent changes in substances	The learner is guided to : • perform simple experiments on projectperties of the different states of matter (volum e, shape, density, compressibility and ability to flow), • perform experiments to demonstrate diffusion in liquids (use of water and	w do the movement of particles in matter affect its physical projectperties	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 8	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations •	

				, d) outline applications of change of state of matter in day - to - day life, e) appreciate the applications of change of state in our day to day life	potassium manganate (VII), • c arry out simple experiments to demonstrate physical changes, temporary chemical changes and perma nent changes of substances, • discuss the applications of change of state of matter in day - to - day life (refrigerators, ice - cream vendors, fog formation, among others), • where necessary, use digital devices to search, play and observe videos and animations sho wing the projectperties of different states of matter (in relation to volume, shape, density, compressibility and ability to flow			Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	5	***ELEMENTS,MI XTURES AND COMPOUNDS***	**Projectperties of gases**	By the end of the lesson learner should be able to: a) describe projectperties of the different states of matter, b) demonstrate diffusion in liquids, c) distinguish between temporary and permanent changes in substances , d)	The learner is guided to : • perform simple experiments on projectperties of the different states of matter (volum e, shape, density, compressibility and ability to flow), • perform experiments to demonstrate diffusion in liquids (use of water and potassium manganate (VII),	w do the movement of particles in matter affect its physical projectperties	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 9	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and	

				outline applications of change of state of matter in day - to - day life, e) appreciate the applications of change of state in our day to day life	• c arry out simple experiments to demonstrate physical changes, temporary chemical changes and perma nent changes of substances, • discuss the applications of change of state of matter in day - to - day life (refrigerators, ice - cream vendors, fog formation, among others), • where necessary, use digital devices to search, play and observe videos and animations sho wing the projectperties of different states of matter (in relation to volume, shape, density, compressibility and ability to flow			Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
3	**1**	***ELEMENTS,MI XTURES AND COMPOUNDS***	**Temporary and permanent changes**	By the end of the lesson learner should be able to: a) describe projectperties of the different states of matter, b) demonstrate diffusion in liquids, c) distinguish between temporary and permanent changes in substances , d) outline applications of	The learner is guided to : • perform simple experiments on projectperties of the different states of matter (volum e, shape, density, compressibility and ability to flow), • perform experiments to demonstrate diffusion in liquids (use of water and potassium manganate (VII), • c	w do the movement of particles in matter affect its physical projectperties	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 15	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates •	

				change of state of matter in day - to - day life, e) appreciate the applications of change of state in our day to day life	arry out simple experiments to demonstrate physical changes, temporary chemical changes and perma nent changes of substances, • discuss the applications of change of state of matter in day - to - day life (refrigerators, ice - cream vendors, fog formation, among others), • where necessary, use digital devices to search, play and observe videos and animations sho wing the projectperties of different states of matter (in relation to volume, shape, density, compressibility and ability to flow			Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	2	***MIXTURES ,ELEMENTS AND COMPOUNDS***	**Elements and compound**	By the end of the lesson the learner should be able to: a) distinguish between an element and a compound, b) relate common elements to their symbols, c) outline the ap plications of common elements in day - to - day life,	rner is guided to : • d iscuss the difference between elements and compounds, • a ssign approjectpriate symbols to common elemen ts and compounds cover (copper, aluminium, iron,silver, table salt, and water), • discuss the names of common elements and their symbols (the first 13 elements of	How are symbols assigned to elements? 2. What is the value of elements in day - t	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 16-17	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications •	

				d) appreciate the information on packag ing labels of commonly consumed substances	the periodic table and commonly used metals: zinc, lead, tin, gold, mercury and limited to the latin names only where applicable), ● d iscuss the importance and market value of common elements and compounds in society (jewellery, iron, toiletries, food nutrients,mineral elements, medals among others), ● S ample labelled containers of different substances indicating the common elements as part of the ingredients			Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	3	***MIXTURES ,ELEMENTS AND COMPOUNDS***	**Common elements and their symbols**	By the end of the lesson the learner should be able to: a) distinguish between an element and a compound, b) relate common elements to their symbols, c) outline the ap plications of common elements in day - to - day life, d) appreciate the information on packag ing labels	rner is guided to : ● d iscuss the difference between elements and compounds, ● a ssign approjectpriate symbols to common elemen ts and compounds cover (copper, aluminium, iron,silver, table salt, and water), ● discuss the names of common elements and their symbols (the first 13 elements of the periodic table and commonly used metals: zinc, lead, tin, gold, mercury and limited to	How are symbols assigned to elements? 2. What is the value of elements in day - t	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 18	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject •	

				of commonly consumed substances	the latin names only where applicable), ● d iscuss the importance and market value of common elements and compounds in society (jewellery, iron, toiletries, food nutrients,mineral elements, medals among others), ● S ample labelled containers of different substances indicating the common elements as part of the ingredients			Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	4	***MIXTURES ,ELEMENTS AND COMPOUNDS***	**Applications of common elements**	By the end of the lesson the learner should be able to: a) distinguish between an element and a compound, b) relate common elements to their symbols, c) outline the ap plications of common elements in day - to - day life, d) appreciate the information on packag ing labels of commonly consumed substances	rner is guided to : ● d iscuss the difference between elements and compounds, ● a ssign approjectpriate symbols to common elemen ts and compounds cover (copper, aluminium, iron,silver, table salt, and water), ● discuss the names of common elements and their symbols (the first 13 elements of the periodic table and commonly used metals: zinc, lead, tin, gold, mercury and limited to the latin names only where applicable), ● d iscuss the importance and market	How are symbols assigned to elements? 2. What is the value of elements in day - t	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 20	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio •	

					value of common elements and compounds in society (jewellery, iron, toiletries, food nutrients,mineral elements, medals among others), ● S ample labelled containers of different substances indicating the common elements as part of the ingredients			Oral or Aural Questions • Learner's Project	
	5	***MIXTURES ,ELEMENTS AND COMPOUNDS***	**Packaging lables**	By the end of the lesson the learner should be able to: a) distinguish between an element and a compound, b) relate common elements to their symbols, c) outline the ap plications of common elements in day - to - day life, d) appreciate the information on packag ing labels of commonly consumed substances	rner is guided to : ● d iscuss the difference between elements and compounds, ● a ssign approjectpriate symbols to common elemen ts and compounds cover (copper, aluminium, iron,silver, table salt, and water), ● discuss the names of common elements and their symbols (the first 13 elements of the periodic table and commonly used metals: zinc, lead, tin, gold, mercury and limited to the latin names only where applicable), ● d iscuss the importance and market value of common elements and compounds in society (jewellery, iron, toiletries, food nutrients,mineral elements, medals	How are symbols assigned to elements? 2. What is the value of elements in day - t	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	

					among others), ● S ample labelled containers of different substances indicating the common elements as part of the ingredients				
5	**1**	***MIXTURES ,ELEMENTS AND COMPOUNDS***	**Package labels**	By the end of the lesson the learner should be able to: a) distinguish between an element and a compound, b) relate common elements to their symbols, c) outline the ap plications of common elements in day - to - day life, d) appreciate the information on packag ing labels of commonly consumed substances	rner is guided to : ● d iscuss the difference between elements and compounds, ● a ssign approjectpriate symbols to common elemen ts and compounds cover (copper, aluminium, iron,silver, table salt, and water), ● discuss the names of common elements and their symbols (the first 13 elements of the periodic table and commonly used metals: zinc, lead, tin, gold, mercury and limited to the latin names only where applicable), ● d iscuss the importance and market value of common elements and compounds in society (jewellery, iron, toiletries, food nutrients,mineral elements, medals among others), ● S	How are symbols assigned to elements? 2. What is the value of elements in day - t	Laboratory Apparatus and Equipment ● Textbooks ● Software ● Relevant reading materials ● Digital Devices ● Recording	Reflections ● Game Playing ● Pre - Post T esting ● Model Making ● Explorations ● Experiments ● Investigations ● Conventions, Conferences, and Debates ● Applications ● Teacher Observations ● Projectject ● Journals ● Portfolio ● Oral or Aural Questions ● Learner's Project	

					ample labelled containers of different substances indicating the common elements as part of the ingredients				
	2	***MIXTURES ,ELEMENTS AND COMPOUNDS***	**Common elements and their symbols**	By the end of the lesson the learner should be able to: a) distinguish between an element and a compound, b) relate common elements to their symbols, c) outline the ap plications of common elements in day - to - day life, d) appreciate the information on packag ing labels of commonly consumed substances	rner is guided to : ● d iscuss the difference between elements and compounds, ● a ssign approjectpriate symbols to common elemen ts and compounds cover (copper, aluminium, iron,silver, table salt, and water), ● discuss the names of common elements and their symbols (the first 13 elements of the periodic table and commonly used metals: zinc, lead, tin, gold, mercury and limited to the latin names only where applicable), ● d iscuss the importance and market value of common elements and compounds in society (jewellery, iron, toiletries, food nutrients,mineral elements, medals among others), ● S ample labelled containers of different substances indicating the common elements as part of the ingredients	How are symbols assigned to elements? 2. What is the value of elements in day - t	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording Spotlight Integrated Science Learner's Book Grade 8 pg. 22	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	

	3	***MIXTURES ,ELEMENTS AND COMPOUNDS***	**Common elements and their symbols**	By the end of the lesson the learner should be able to: a) distinguish between an element and a compound, b) relate common elements to their symbols, c) outline the ap plications of common elements in day - to - day life, d) appreciate the information on packag ing labels of commonly consumed substances	rner is guided to : ● d iscuss the difference between elements and compounds, ● a ssign approjectpriate symbols to common elemen ts and compounds cover (copper, aluminium, iron,silver, table salt, and water), ● discuss the names of common elements and their symbols (the first 13 elements of the periodic table and commonly used metals: zinc, lead, tin, gold, mercury and limited to the latin names only where applicable), ● d iscuss the importance and market value of common elements and compounds in society (jewellery, iron, toiletries, food nutrients,mineral elements, medals among others), ● S ample labelled containers of different substances indicating the common elements as part of the ingredients	How are symbols assigned to elements? 2. What is the value of elements in day - t	Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording	Reflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	4	***MIXTURES, ELEMENTS AND COMPOUNDS***	STRUCTURE OF THE ATOM 7	By the end of the lesson the learner should be able to: a) describe the structure	The learner is guided to: • d iscuss the meaning of the atom and illustrate its structure (projecttons,	hat is the structure of an atom? 2. How do atoms	Course book Basic Laboratory Apparatus Equipment Selected specimens	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and	

				of an atom and electron arrangement of elements, b) determine atomic number and mass number of eleme nts, c) classify elements into metals and non - metals, d) appreciate the value of different elements in day - to - day life a)	neutrons, and electrons), • d raw and discuss the electron arrangements of elements and classify them into metals and non - metals (first 20 elements of the periodic table), • d iscuss and illustrate the atomic number and mass number of elements (first 13 elements of the periodic table), • use digital or pr int media to search for information on the structure of an atom, electron arrangement, atomic number and mass number of elements, • Projectject: model the atomic structure of selected elements of the periodic table using locally available materials	gain stability	Ice Candle wax Water/salty water *Spotlight Integrated Science Learner's Book Grade 7 pg. 66-67*	AnswersReflection s • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	5	***MIXTURES, ELEMENTS AND COMPOUNDS***	Atomic numbe	By the end of the lesson the learner should be able to: a) describe the structure of an atom and electron arrangement of elements, b) determine atomic number and mass number of eleme nts,	The learner is guided to: • d iscuss the meaning of the atom and illustrate its structure (projecttons, neutrons, and electrons), • d raw and discuss the electron arrangements of elements and classify them into metals and non	hat is the structure of an atom? 2. How do atoms gain stability	Course book Basic Laboratory Apparatus Equipment Selected specimens Ice Candle wax Water/salty water *Spotlight Integrated Science Learner's Book Grade 8 pg. 66-67*	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s • Game Playing • Pre -	

				c) classify elements into metals and non - metals, d) appreciate the value of different elements in day - to - day life b)	- metals (first 20 elements of the periodic table), • d iscuss and illustrate the atomic number and mass number of elements (first 13 elements of the periodic table), • use digital or pr int media to search for information on the structure of an atom, electron arrangement, atomic number and mass number of elements, • Projectject: model the atomic structure of selected elements of the periodic table using locally available materials			Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	1	***MIXTURES, ELEMENTS AND COMPOUNDS***	Mass number	By the end of the lesson the learner should be able to: a) describe the structure of an atom and electron arrangement of elements, b) determine atomic number and mass number of eleme nts, c) classify elements into metals and non - metals, d) appreciate the value of different elements in day	The learner is guided to: • d iscuss the meaning of the atom and illustrate its structure (projecttons, neutrons, and electrons), • d raw and discuss the electron arrangements of elements and classify them into metals and non - metals (first 20 elements of the periodic table), •	hat is the structure of an atom? 2. How do atoms gain stability	Course book Basic Laboratory Apparatus Equipment Selected specimens Ice Candle wax Water/salty water *Spotlight Integrated Science Learner's Book Grade 8 pg. 66-67*	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments	

				- to - day life c)	d iscuss and illustrate the atomic number and mass number of elements (first 13 elements of the periodic table), • use digital or pr int media to search for information on the structure of an atom, electron arrangement, atomic number and mass number of elements, • Projectject: model the atomic structure of selected elements of the periodic table using locally available materials			• Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	2	***MIXTURES, ELEMENTS AND COMPOUNDS***	Metals and non metals	By the end of the lesson the learner should be able to: a) describe the structure of an atom and electron arrangement of elements, b) determine atomic number and mass number of eleme nts, c) classify elements into metals and non - metals, d) appreciate the value of different elements in day - to - day life d)	The learner is guided to: • d iscuss the meaning of the atom and illustrate its structure (projecttons, neutrons, and electrons), • d raw and discuss the electron arrangements of elements and classify them into metals and non - metals (first 20 elements of the periodic table), • d iscuss and illustrate the atomic number and mass number of elements (first 13 elements of the periodic table), •	hat is the structure of an atom? 2. How do atoms gain stability	Course book Basic Laboratory Apparatus Equipment Selected specimens Ice Candle wax Water/salty water *Spotlight Integrated Science Learner's Book Grade 8 pg. 66-67*	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications	

					use digital or pr int media to search for information on the structure of an atom, electron arrangement, atomic number and mass number of elements, • Projectject: model the atomic structure of selected elements of the periodic table using locally available materials			• Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	3	***MIXTURES, ELEMENTS AND COMPOUNDS***	Metals and non metals	By the end of the lesson the learner should be able to: a) describe the structure of an atom and electron arrangement of elements, b) determine atomic number and mass number of eleme nts, c) classify elements into metals and non - metals, d) appreciate the value of different elements in day - to - day life e)	The learner is guided to: • d iscuss the meaning of the atom and illustrate its structure (projecttons, neutrons, and electrons), • d raw and discuss the electron arrangements of elements and classify them into metals and non - metals (first 20 elements of the periodic table), • d iscuss and illustrate the atomic number and mass number of elements (first 13 elements of the periodic table), • use digital or pr int media to search for information on the structure of an atom, electron arrangement, atomic number and mass number of elements, • Projectject: model the atomic structure of	hat is the structure of an atom? 2. How do atoms gain stability	Course book Basic Laboratory Apparatus Equipment Selected specimens Ice Candle wax Water/salty water *Spotlight Integrated Science Learner's Book Grade 8 pg. 66-67*	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals •	

					selected elements of the periodic table using locally available materials			Portfolio • Oral or Aural Questions • Learner's Project	
	4	***MIXTURES, ELEMENTS AND COMPOUNDS***	Metals and non metals	By the end of the lesson the learner should be able to: a) describe the structure of an atom and electron arrangement of elements, b) determine atomic number and mass number of eleme nts, c) classify elements into metals and non - metals, d) appreciate the value of different elements in day - to - day life f)	The learner is guided to: • d iscuss the meaning of the atom and illustrate its structure (projecttons, neutrons, and electrons), • d raw and discuss the electron arrangements of elements and classify them into metals and non - metals (first 20 elements of the periodic table), • d iscuss and illustrate the atomic number and mass number of elements (first 13 elements of the periodic table), • use digital or pr int media to search for information on the structure of an atom, electron arrangement, atomic number and mass number of elements, • Projectject: model the atomic structure of selected elements of the periodic table using locally available materials	hat is the structure of an atom? 2. How do atoms gain stability	Course book Basic Laboratory Apparatus Equipment Selected specimens Ice Candle wax Water/salty water *Spotlight Integrated Science Learner's Book Grade 8 pg. 66-67*	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	5	***MIXTURES,***	Importance of	By the end of the lesson the learner	The learner is guided to:	hat is the	Course book	Written Test	

		ELEMENTS AND COMPOUNDS	elements	should be able to: a) describe the structure of an atom and electron arrangement of elements, b) determine atomic number and mass number of eleme nts, c) classify elements into metals and non - metals, d) appreciate the value of different elements in day - to - day life g)	• d iscuss the meaning of the atom and illustrate its structure (projecttons, neutrons, and electrons), • d raw and discuss the electron arrangements of elements and classify them into metals and non - metals (first 20 elements of the periodic table), • d iscuss and illustrate the atomic number and mass number of elements (first 13 elements of the periodic table), • use digital or pr int media to search for information on the structure of an atom, electron arrangement, atomic number and mass number of elements, • Projectject: model the atomic structure of selected elements of the periodic table using locally available materials	structure of an atom? 2. How do atoms gain stability	Basic Laboratory Apparatus Equipment Selected specimens Ice Candle wax Water/salty water *Spotlight Integrated Science Learner's Book Grade 8pg. 66-67*	Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
11	1	***MIXTURES, ELEMENTS AND COMPOUNDS***	OXYGEN	BY The end of the lesson the learner should be able to: a) prepare oxygen in the laboratory, b) investigate the physical and chemical projectperties of oxygen,	learner is guided to: • carry out experiment using hydrogen peroxide/potassium permanganate to prepare oxygen, • d iscuss the role of oxygen in co	how is oxygen important in day to day life ? 2. What are the different	Basic Laboratory Apparatus Equipment Selected specimens Candle wax Water *Spotlight Integrated Science Learner's Book Grade8 pg. 67-*	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s •	

				c) explain the role of oxygen in combustion and spread of f ire, d) identify classes of fire and their control measures, e) appreciate the role of oxygen in day to day life The a)	mbustion and the spread of fire, • c lassify fire according to the cause and suggest control measures, • p ractise fire control measures (breaking the fire triangle and use of fire extinguishers), • d iscuss rights to safety and access to information on flammable s ubstances, • discuss the role of oxygen in every life Projectperty of the Government of Kenya Not for Sale Page | 9 • where possible, u se digital devices to search, play and watch and discuss videos and animations on the different classes of fire.	classes of fire	*68*Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording	Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	2	***MIXTURES, ELEMENTS AND COMPOUNDS***	PREPARATIO N OF OXYGEN	BY The end of the lesson the learner should be able to: a) prepare oxygen in the laboratory, b) investigate the physical and chemical projectperties of oxygen, c) explain the role of oxygen in combustion and spread of f ire, d) identify classes of fire and their control measures,	learner is guided to: • carry out experiment using hydrogen peroxide/potassium permanganate to prepare oxygen, • d iscuss the role of oxygen in co mbustion and the spread of fire, • c lassify fire according to the cause and suggest control measures, • p ractise fire control measures	how is oxygen important in day to day life ? 2. What are the different classes of fire	Basic Laboratory Apparatus Equipment Selected specimens Candle wax Water *Spotlight Integrated Science Learner's Book Grade8 pg. 67-68*Laboratory Apparatus and Equipment • Textbooks • Software	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflections • Game Playing • Pre - Post T esting • Model Making	

				e) appreciate the role of oxygen in day to day life The b)	(breaking the fire triangle and use of fire extinguishers), • d iscuss rights to safety and access to information on flammable s ubstances, • discuss the role of oxygen in every life Projectperty of the Government of Kenya Not for Sale Page | 9 • where possible, u se digital devices to search, play and watch and discuss videos and animations on the different classes of fire.		• Relevant reading materials • Digital Devices • Recording	• Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	3	***MIXTURES, ELEMENTS AND COMPOUNDS***	PHYSICAL PROJECTPERTIES OF OXYGEN	BY The end of the lesson the learner should be able to: a) prepare oxygen in the laboratory, b) investigate the physical and chemical projectperties of oxygen, c) explain the role of oxygen in combustion and spread of f ire, d) identify classes of fire and their control measures, e) appreciate the role of oxygen in day to day life The c)	learner is guided to: • carry out experiment using hydrogen peroxide/potassium permanganate to prepare oxygen, • d iscuss the role of oxygen in co mbustion and the spread of fire, • c lassify fire according to the cause and suggest control measures, • p ractise fire control measures (breaking the fire triangle and use of fire extinguishers), • d iscuss rights to safety and access to information on flammable	how is oxygen important in day to day life ? 2. What are the different classes of fire	Basic Laboratory Apparatus Equipment Selected specimens Candle wax Water *Spotlight Integrated Science Learner's Book Grade8 pg. 67-68*Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions,	

					s ubstances, • discuss the role of oxygen in every life Projectperty of the Government of Kenya Not for Sale Page | 9 • where possible, u se digital devices to search, play and watch and discuss videos and animations on the different classes of fire.			Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	4	***MIXTURES, ELEMENTS AND COMPOUNDS***	CHEMICAL PROJECTPERTY OF OXYGEN	BY The end of the lesson the learner should be able to: a) prepare oxygen in the laboratory, b) investigate the physical and chemical projectperties of oxygen, c) explain the role of oxygen in combustion and spread of f ire, d) identify classes of fire and their control measures, e) appreciate the role of oxygen in day to day life The d)	learner is guided to: • carry out experiment using hydrogen peroxide/potassium permanganate to prepare oxygen, • d iscuss the role of oxygen in co mbustion and the spread of fire, • c lassify fire according to the cause and suggest control measures, • p ractise fire control measures (breaking the fire triangle and use of fire extinguishers), • d iscuss rights to safety and access to information on flammable s ubstances, • discuss the role of oxygen in every life Projectperty of the Government of Kenya	how is oxygen important in day to day life ? 2. What are the different classes of fire	Basic Laboratory Apparatus Equipment Selected specimens Candle wax Water *Spotlight Integrated Science Learner's Book Grade8 pg. 67-68*Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflections • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations •	

					Not for Sale Page | 9 • where possible, u se digital devices to search, play and watch and discuss videos and animations on the different classes of fire.			Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
	5	***MIXTURES, ELEMENTS AND COMPOUNDS***	ROLE OF OXYGEN IN COMBUSTIO N	BY The end of the lesson the learner should be able to: a) prepare oxygen in the laboratory, b) investigate the physical and chemical projectperties of oxygen, c) explain the role of oxygen in combustion and spread of f ire, d) identify classes of fire and their control measures, e) appreciate the role of oxygen in day to day life The e)	learner is guided to: • carry out experiment using hydrogen peroxide/potassium permanganate to prepare oxygen, • d iscuss the role of oxygen in co mbustion and the spread of fire, • c lassify fire according to the cause and suggest control measures, • p ractise fire control measures (breaking the fire triangle and use of fire extinguishers), • d iscuss rights to safety and access to information on flammable s ubstances, • discuss the role of oxygen in every life Projectperty of the Government of Kenya Not for Sale Page | 9 • where possible, u se digital devices to search, play and watch and discuss videos and animations on the different classes of fire.	how is oxygen important in day to day life ? 2. What are the different classes of fire	Basic Laboratory Apparatus Equipment Selected specimens Candle wax Water *Spotlight Integrated Science Learner's Book Grade8 pg. 67-68*Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions	

								• Learner's Project	
12	1	***MIXTURES, ELEMENTS AND COMPOUNDS***	CLASSES OF FIRE AND CONTROL MEASUE	BY The end of the lesson the learner should be able to: a) prepare oxygen in the laboratory, b) investigate the physical and chemical projectperties of oxygen, c) explain the role of oxygen in combustion and spread of f ire, d) identify classes of fire and their control measures, e) appreciate the role of oxygen in day to day life The f)	learner is guided to: • carry out experiment using hydrogen peroxide/potassium permanganate to prepare oxygen, • d iscuss the role of oxygen in co mbustion and the spread of fire, • c lassify fire according to the cause and suggest control measures, • p ractise fire control measures (breaking the fire triangle and use of fire extinguishers), • d iscuss rights to safety and access to information on flammable s ubstances, • discuss the role of oxygen in every life Projectperty of the Government of Kenya Not for Sale Page | 9 • where possible, u se digital devices to search, play and watch and discuss videos and animations on the different classes of fire.	how is oxygen important in day to day life ? 2. What are the different classes of fire	Basic Laboratory Apparatus Equipment Selected specimens Candle wax Water *Spotlight Integrated Science Learner's Book Grade8 pg. 69-70* Laboratory Apparatus and Equipment • Textbooks • Software • Relevant reading materials • Digital Devices • Recording	Written Test Assessment Rubrics Checklist Anecdotal Records Oral Questions and AnswersReflection s • Game Playing • Pre - Post T esting • Model Making • Explorations • Experiments • Investigations • Conventions, Conferences, and Debates • Applications • Teacher Observations • Projectject • Journals • Portfolio • Oral or Aural Questions • Learner's Project	
13-14	END TERM EXAMINATION AND CLOSING								