GRADE 10 CHEMISTRY SCHEMES OF WORK FOR TERM 1

NAME OF THE TEACHER:……

SCHOOL:…….. YEAR:…….

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
1	1	**1.0 Inorganic Chemistry**	**1.1 Introduction to Chemistry**	By the end of the lesson, the learner should be able to explain the meaning of Chemistry as a field of science.	How is the study of Chemistry important in our society?	The learner is guided to brainstorm on concepts covered in junior school that relate to Chemistry and discuss the meaning of Chemistry.	KICD Curriculum Design 2024, Chemistry textbooks, charts.	Oral questions	
	2			By the end of the lesson, the learner should be able to identify the branches of Chemistry.		The learner is guided to discuss with peers the branches of Chemistry (e.g., Organic, Inorganic, Physical).	Charts showing branches of science.	Observation	
	3			By the end of the lesson, the learner should be able to explore the role of Chemistry in day-to-day life.		The learner is guided to brainstorm the importance of Chemistry in daily life (agriculture, medicine, food industry).	Realia (medicine packets, fertilizers).	Oral discussion	
	4			By the end of the lesson, the learner should be able to examine career opportunities related to Chemistry.		The learner is guided to search for information using electronic/print media on careers in Chemistry and	Digital devices, career brochures.	Written assignment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
						discuss gender stereotyping.			
2	1			By the end of the lesson, the learner should be able to examine the effects of drug and substance use in day-to-day life.		The learner is guided to discuss the meaning of drug, prescription, dosage, and substance use with peers.	Pamphlets on drug abuse.	Oral questions	
	2			By the end of the lesson, the learner should be able to promote rights and responsibilities to a safe learning environment (Consumer protection).		The learner is guided to brainstorm on consumer rights regarding drug prescription and develop posters to sensitize peers on risks.	Manilla papers, markers.	Project (Posters)	
	3		**1.2 The Atom**	By the end of the lesson, the learner should be able to describe the structure of the atom (Review).	How are electrons arranged in an atom?	The learner is guided to review the concept of the structure of the atom, atomic number, and mass number.	Periodic table charts, atomic models.	Oral questions	
	4			By the end of the lesson, the learner should be able to relate atomic number, mass number, and electron number.		The learner is guided to discuss the relationship between atomic number, mass number, and number of electrons.	Worksheets.	Written exercise	
3	1			By the end of the lesson, the learner should be able to illustrate the structure		The learner is guided to illustrate the structure of the atom using Dalton's model.	Charts of atomic models.	Drawing	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				of the atom using Dalton's model.					
	2			By the end of the lesson, the learner should be able to illustrate the structure of the atom using Rutherford's model.		The learner is guided to watch a simulation on the Rutherford Gold Foil experiment and discuss findings.	Digital simulation tools.	Observation	
	3			By the end of the lesson, the learner should be able to explain the meaning of isotopes.		The learner is guided to brainstorm the meaning of the terms isotopes and relative atomic mass.	Charts of isotopic data.	Oral questions	
	4			By the end of the lesson, the learner should be able to determine the relative atomic mass (RAM) of elements.		The learner is guided to calculate the relative atomic mass of elements from isotopic abundances (e.g., Chlorine).	Calculator, data sheets.	Calculation exercise	
4	1			By the end of the lesson, the learner should be able to determine the RAM of elements (Complex practice).		The learner is guided to practice calculating RAM for various elements with multiple isotopes.	Worksheets.	Written test	
	2			By the end of the lesson, the learner should be able to describe energy levels and orbitals.		The learner is guided to discuss the relationship between energy levels and orbitals in an atom.	Charts showing orbitals.	Discussion	
	3			By the end of the lesson, the learner should be able to illustrate the order of		The learner is guided to carry out simple activities to illustrate the order	Interactive board/diagrams.	Assignment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				filling electrons in orbitals.		of filling electrons in s and p orbitals.			
	4			By the end of the lesson, the learner should be able to write the electron arrangement for elements 1-5 using s and p notation.		The learner is guided to draw the electron arrangement for the first 5 elements using s and p orbitals.	Periodic table.	Drawing	
5	1			By the end of the lesson, the learner should be able to write the electron arrangement for elements 6-10 using s and p notation.		The learner is guided to draw the electron arrangement for elements 6 to 10 using s and p orbitals.	Periodic table.	Drawing	
	2			By the end of the lesson, the learner should be able to write the electron arrangement for elements 11-15 using s and p notation.		The learner is guided to draw the electron arrangement for elements 11 to 15 using s and p orbitals.	Periodic table.	Drawing	
	3			By the end of the lesson, the learner should be able to write the electron arrangement for elements 16-20 using s and p notation.		The learner is guided to draw the electron arrangement for elements 16 to 20 using s and p orbitals.	Periodic table.	Drawing	
	4			By the end of the lesson, the learner should be able to develop interest in the study of the atom (Modelling).		The learner is guided to model the structure of the atom using locally available materials.	Clay, wires, beads.	Project	
6	1			By the end of the lesson, the learner		The learner is guided to present	Student models.	Peer assessment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				should be able to model the structure of the atom (Presentation).		their atomic models and explain the arrangement of particles.			
	2			By the end of the lesson, the learner should be able to discuss the stability of atoms.		The learner is guided to discuss with peers the stability of atoms regarding loss or gain of electrons.	Charts.	Discussion	
	3			By the end of the lesson, the learner should be able to predict ion formation (Cations).		The learner is guided to predict the type of ion formed from a given electron arrangement (loss of electrons).	Worksheets.	Written quiz	
	4			By the end of the lesson, the learner should be able to predict ion formation (Anions).		The learner is guided to predict the type of ion formed from a given electron arrangement (gain of electrons).	Worksheets.	Written quiz	
7	1			By the end of the lesson, the learner should be able to write electron arrangement of ions.		The learner is guided to write electron arrangement of ions using s and p notation.	Periodic table.	Written exercise	
	2			By the end of the lesson, the learner should be able to infer valency from electron arrangement.		The learner is guided to discuss the relationship between valency and oxidation number.	Charts.	Oral questions	
	3			By the end of the lesson, the learner		The learner is guided to determine	Worksheets.	Assignment	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				should be able to infer oxidation numbers from electron arrangement.		oxidation numbers based on electron gain/loss.			
	4			By the end of the lesson, the learner should be able to consolidate knowledge on the Atom.		The learner is guided to review key concepts of the sub-strand through questions and answers.	Revision papers.	Written test	
8	1		**1.3 The Periodic Table**	By the end of the lesson, the learner should be able to appreciate the role of electron arrangement in the development of the periodic table.	Why is the study of the periodic table important?	The learner is guided to brainstorm in groups on the development of the periodic table.	Periodic Table charts.	Oral questions	
	2			By the end of the lesson, the learner should be able to relate the position of an element to its electron arrangement (Groups).		The learner is guided to arrange the first 20 elements of the periodic table into groups.	Periodic Table charts.	Observation	
	3			By the end of the lesson, the learner should be able to relate the position of an element to its electron arrangement (Periods).		The learner is guided to arrange the first 20 elements of the periodic table into periods.	Periodic Table charts.	Written exercise	
	4			By the end of the lesson, the learner should be able to identify chemical families (Alkali Metals).		The learner is guided to identify Alkali metals in the periodic table.	Periodic Table.	Identification	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
9	1			By the end of the lesson, the learner should be able to identify chemical families (Alkaline Earth Metals).		The learner is guided to identify Alkaline earth metals in the periodic table.	Periodic Table.	Identification	
	2			By the end of the lesson, the learner should be able to identify chemical families (Halogens).		The learner is guided to identify Halogens in the periodic table.	Periodic Table.	Identification	
	3			By the end of the lesson, the learner should be able to identify chemical families (Noble Gases).		The learner is guided to identify Noble gases in the periodic table.	Periodic Table.	Identification	
	4			By the end of the lesson, the learner should be able to identify chemical families (Transition Elements).		The learner is guided to identify Transition elements in the periodic table.	Periodic Table.	Identification	
10	1			By the end of the lesson, the learner should be able to discuss elements with variable oxidation numbers.		The learner is guided to discuss elements (mainly transition metals) that exhibit variable oxidation numbers.	Charts/Textbooks.	Discussion	
	2			By the end of the lesson, the learner should be able to identify radicals.		The learner is guided to identify common radicals and determine their valencies.	Table of radicals.	Written quiz	
	3			By the end of the lesson, the learner should be able to		The learner is guided to practice writing formulae of simple binary	Worksheets.	Written exercise	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
				derive the formulae of binary compounds.		compounds using valencies.			
	4			By the end of the lesson, the learner should be able to derive the formulae of compounds with radicals.		The learner is guided to practice writing formulae of compounds involving radicals.	Worksheets.	Written exercise	
11	1			By the end of the lesson, the learner should be able to derive the formulae of complex compounds.		The learner is guided to continue practicing writing formulae using oxidation states.	Worksheets.	Assignment	
	2			By the end of the lesson, the learner should be able to write balanced equations for chemical reactions (Introduction).		The learner is guided to understand the principles of balancing chemical equations.	Balance scales models.	Oral questions	
	3			By the end of the lesson, the learner should be able to write balanced equations for simple reactions (Synthesis).		The learner is guided to write balanced equations for simple synthesis reactions.	Whiteboard/Charts.	Written exercise	
	4			By the end of the lesson, the learner should be able to write balanced equations for simple reactions (Decomposition).		The learner is guided to write balanced equations for simple decomposition reactions.	Whiteboard/Charts.	Written exercise	
12	1			By the end of the lesson, the learner should be able to write balanced equations for simple reactions (Displacement).		The learner is guided to write balanced equations for displacement reactions.	Whiteboard/Charts.	Written exercise	

Week	LSN	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Question(s)	Learning Experiences	Learning Resources	Assessment Methods	Refl
	2			By the end of the lesson, the learner should be able to write balanced equations (Practice).		The learner is guided to practice balancing various chemical equations.	Worksheets.	Test	
	3			By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 concepts (Review).		The learner is guided to review key concepts from Introduction, Atom, and Periodic Table strands.	Past papers/Quizzes.	Peer review	
	4			By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 concepts (Assessment).		Administration of End of Term 1 Examination.	Exam papers.	Written Exam	
13	1			By the end of the lesson, the learner should be able to demonstrate understanding of Term 1 concepts (Assessment).		Administration of End of Term 1 Examination.	Exam papers.	Written Exam	
	2			By the end of the lesson, the learner should be able to reflect on Term 1 performance.		Reviewing exam performance and closing for the holiday.		Reflection	