GRADE 10 MATHEMATICS SCHEMES OF WORK FOR TERM 1

NAME OF THE TEACHER:……

SCHOOL:…….. YEAR:…….

Week	Lesson	Strand	Sub-strand	Specific Learning Outcomes	Key Inquiry Questions	Learning Experiences	Learning Resources	Assessment	Reflection
1	1	**1.0 Numbers & Algebra**	**1.1 Real Numbers**	By the end of the lesson, the learner should be able to classify whole numbers as odd, even, prime, and composite.	How do we use real numbers in day-to-day activities?	The learner is guided to discuss with peers to identify and categorise whole numbers.	Curriculum Design (2024) pg 1; Number charts	Oral questions	
	2			By the end of the lesson, the learner should be able to classify real numbers as rational and irrational.		The learner is guided to discuss in a group the meaning of real numbers and categorise them.	Curriculum Design (2024) pg 1; Number charts	Observation	
	3			By the end of the lesson, the learner should be able to determine the reciprocal of real numbers by division.		The learner is guided to work out the reciprocal of real numbers by division.	Curriculum Design (2024) pg 1; Textbooks	Written quiz	
	4			By the end of the lesson, the learner should be able to determine the		The learner is guided to read values from reciprocal tables.	Curriculum Design (2024) pg 1; Math tables	Written exercise	

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				reciprocal of real numbers using mathematical tables.					
	5			By the end of the lesson, the learner should be able to determine the reciprocal of real numbers using calculators.		The learner is guided to use a calculator to find reciprocals.	Curriculum Design (2024) pg 1; Calculator	Observation	
2	1			By the end of the lesson, the learner should be able to apply reciprocals in mathematical computations.		The learner is guided to use reciprocal of real numbers to work out tasks.	Curriculum Design (2024) pg 1; Worksheets	Written test	
	2		**1.2 Indices and Logarithms**	By the end of the lesson, the learner should be able to express numbers in index form.	Why do we use indices and logarithms?	The learner is guided to write numbers in terms of bases and indices.	Curriculum Design (2024) pg 3; Chart	Oral questions	
	3			By the end of the lesson, the learner should be able to derive the laws of indices.		The learner is guided to discuss in a group and generate the laws of indices using factors.	Curriculum Design (2024) pg 3; Textbooks	Discussion	
	4			By the end of the lesson, the		The learner is guided to use	Curriculum Design (2024)	Written exercise	

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				learner should be able to apply the laws of indices in different situations.		laws of indices to work out mathematical computations.	pg 3; Worksheets		
	5			By the end of the lesson, the learner should be able to relate index notation to logarithm notation.		The learner is guided to relate index notation to logarithm notation to base 10.	Curriculum Design (2024) pg 3; Charts	Observation	
3	1			By the end of the lesson, the learner should be able to determine common logarithms using tables.		The learner is guided to read common logarithms from mathematical tables.	Curriculum Design (2024) pg 3; Math tables	Written quiz	
	2			By the end of the lesson, the learner should be able to apply logarithms in multiplication and division.		The learner is guided to use logarithms to work out multiplication and division tasks.	Curriculum Design (2024) pg 3; Textbooks	Written exercise	
	3			By the end of the lesson, the learner should be able to apply logarithms in powers and roots.		The learner is guided to use logarithms to work out powers and roots tasks.	Curriculum Design (2024) pg 3; Textbooks	Written exercise	

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	4			By the end of the lesson, the learner should be able to use digital devices to work out indices and logarithms.		The learner is guided to use calculators/apps to compute indices and logarithms.	Curriculum Design (2024) pg 4; Digital devices	Project work	
	5		**1.3 Quadratic Expressions & Equations**	By the end of the lesson, the learner should be able to form quadratic expressions.	How do we apply the concept of quadratic equations?	The learner is guided to generate quadratic expressions from given statements.	Curriculum Design (2024) pg 5; Textbooks	Oral questions	
4	1			By the end of the lesson, the learner should be able to derive quadratic identities.		The learner is guided to derive quadratic identities from the concept of area.	Curriculum Design (2024) pg 5; Cardboard cutouts	Observation	
	2			By the end of the lesson, the learner should be able to apply quadratic identities.		The learner is guided to use quadratic identities to evaluate numerical cases.	Curriculum Design (2024) pg 5; Worksheets	Written test	
	3			By the end of the lesson, the learner should be able to factorise quadratic expressions.		The learner is guided to discuss and work out factors of quadratic expressions.	Curriculum Design (2024) pg 5; Textbooks	Written exercise	
	4			By the end of the lesson, the		The learner is guided to form	Curriculum Design (2024)	Written quiz	

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				learner should be able to form quadratic equations from roots.		quadratic equations given the roots.	pg 5; Textbooks		
	5			By the end of the lesson, the learner should be able to form quadratic equations from statements.		The learner is guided to form quadratic equations from real-life statements.	Curriculum Design (2024) pg 5; Real-life scenarios	Group discussion	
5	1			By the end of the lesson, the learner should be able to solve quadratic equations by factorisation.		The learner is guided to solve quadratic equations by factorisation method.	Curriculum Design (2024) pg 5; Textbooks	Written test	
	2			By the end of the lesson, the learner should be able to apply quadratic equations to real life situations.		The learner is guided to interpret real-life cases to form and solve quadratic equations.	Curriculum Design (2024) pg 6; Word problems	Project	
	3	**2.0 Measurements & Geometry**	**2.1 Similarity and Enlargement**	By the end of the lesson, the learner should be able to determine the centre of enlargement.	How is similarity and enlargement applied in day-to-day life?	The learner is guided to use an object and its image to establish the centre of enlargement.	Curriculum Design (2024) pg 10; Graph paper	Observation	
	4			By the end of the lesson, the learner should		The learner is guided to calculate the	Curriculum Design (2024) pg 10; Rulers	Written quiz	

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				be able to determine the linear scale factor (L.S.F).		ratio of lengths of corresponding sides.			
	5			By the end of the lesson, the learner should be able to construct images of objects under enlargement (positive scale).		The learner is guided to draw images given the centre and positive scale factor.	Curriculum Design (2024) pg 10; Geom set	Practical task	
6	1			By the end of the lesson, the learner should be able to construct images of objects under enlargement (negative scale).		The learner is guided to draw images given the centre and negative scale factor.	Curriculum Design (2024) pg 10; Geom set	Practical task	
	2			By the end of the lesson, the learner should be able to construct images under enlargement on Cartesian plane.		The learner is guided to draw images on the Cartesian plane given centre and scale factor.	Curriculum Design (2024) pg 10; Graph paper	Written exercise	
	3			By the end of the lesson, the learner should be able to determine area scale factor (A.S.F).		The learner is guided to work out the ratio of the area of similar plane figures.	Curriculum Design (2024) pg 11; Cutouts	Discussion	

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	4			By the end of the lesson, the learner should be able to determine volume scale factor (V.S.F).		The learner is guided to work out the ratio of the volume of similar solids.	Curriculum Design (2024) pg 11; Solids	Written quiz	
	5			By the end of the lesson, the learner should be able to relate L.S.F, A.S.F and V.S.F.		The learner is guided to establish the relationship between L.S.F, A.S.F and V.S.F.	Curriculum Design (2024) pg 11; Models	Written test	
7	1			By the end of the lesson, the learner should be able to apply similarity and enlargement to real-life situations.		The learner is guided to work out tasks involving similarity in real life.	Curriculum Design (2024) pg 11; Real-life problems	Project	
	2			By the end of the lesson, the learner should be able to make models using similarity.		The learner is guided to use locally available materials to make sets of models of solids.	Curriculum Design (2024) pg 11; Clay/Cardboard	Project work	
	3		**2.2 Reflection and Congruence**	By the end of the lesson, the learner should be able to identify lines of symmetry.	How do we use reflection in day-to-day life?	The learner is guided to collect and observe objects to illustrate lines/planes of symmetry.	Curriculum Design (2024) pg 13; Environment objects	Observation	

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	4			By the end of the lesson, the learner should be able to determine properties of reflection.		The learner is guided to use a plane mirror and tracing paper to generate properties.	Curriculum Design (2024) pg 13; Mirrors, Tracing paper	Practical	
	5			By the end of the lesson, the learner should be able to draw an image given object and mirror line.		The learner is guided to use properties of reflection to locate images.	Curriculum Design (2024) pg 14; Drawing tools	Practical task	
8	**MID-TERM**	**MID-TERM BREAK**	**MID-TERM BREAK**	**MID-TERM BREAK**	**MID-TERM BREAK**	**MID-TERM BREAK**	**MID-TERM BREAK**	**MID-TERM BREAK**	**MID-TERM**
9	1			By the end of the lesson, the learner should be able to reflect objects on the Cartesian plane.		The learner is guided to draw images on a Cartesian plane using reflection properties.	Curriculum Design (2024) pg 14; Graph paper	Written exercise	
	2			By the end of the lesson, the learner should be able to determine the equation of a mirror line.		The learner is guided to construct a mirror line and work out its equation.	Curriculum Design (2024) pg 14; Graph paper	Written quiz	
	3			By the end of the lesson, the learner should be able to identify	Where do we use congruence in real life?	The learner is guided to use paper cutouts to identify direct and opposite	Curriculum Design (2024) pg 14; Cutouts	Observation	

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				congruent shapes.		congruent shapes.			
	4			By the end of the lesson, the learner should be able to carry out congruence tests for triangles (SSS).		The learner is guided to establish SSS congruence test using triangles.	Curriculum Design (2024) pg 14; Geom set	Practical	
	5			By the end of the lesson, the learner should be able to carry out congruence tests for triangles (SAS).		The learner is guided to establish SAS congruence test using triangles.	Curriculum Design (2024) pg 14; Geom set	Practical	
10	1			By the end of the lesson, the learner should be able to carry out congruence tests for triangles (AAS/ASA).		The learner is guided to establish AAS/ASA congruence test using triangles.	Curriculum Design (2024) pg 14; Geom set	Practical	
	2			By the end of the lesson, the learner should be able to carry out congruence tests for triangles (RHS).		The learner is guided to establish RHS congruence test using triangles.	Curriculum Design (2024) pg 14; Geom set	Practical	
	3			By the end of the lesson, the learner should be able to use digital devices		The learner is guided to use digital devices to carry out reflection.	Curriculum Design (2024) pg 15; Digital software	Observation	

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				to reflect objects.					
	4	**REVISION**	**Revision**	By the end of the lesson, the learner should be able to revise Strand 1.0 concepts.		Review of Real Numbers, Indices, Logarithms, and Quadratics.	Past papers	Written Practice	
	5	**REVISION**	**Revision**	By the end of the lesson, the learner should be able to revise Strand 2.1 concepts.		Review of Similarity and Enlargement.	Past papers	Written Practice	
11	1	**REVISION**	**Revision**	By the end of the lesson, the learner should be able to revise Strand 2.2 concepts.		Review of Reflection and Congruence.	Past papers	Written Practice	
	2	**ALL**	**END TERM**	**END TERM ONE ASSESSMENT**		**END TERM ONE ASSESSMENT**		**EXAMS**	**ASSESSMENT**