
**PRESIDENT'S OFFICE-
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**

SCHEME OF WORK

SCHOOL'S NAME:

TEACHER'S NAME:

CLASS: **FORM THREE**

SUBJECT: **BASIC MATHEMATICS**

TERMS: **I AND II**

YEAR: **2024**

COMPETENCE	OBJECTIVES		MAIN TOPIC	SUB TOPIC	P E R I O D	TEACHING ACTIVITIES	LEARNING ACTIVITIES	T/L- MATERIALS	REFERENCE	ASSESSMENT	REMARK S
By the end of Form Three Course Students should have developed competence in applying Functions and Relations in real life related problems	The student should be able to:- -Find relations between two sets -Demonstrate relations pictorially -Draw a graph of a relation represented by linear inequality. -State domain and range of relation -Explain the inverse of a relation show the inverse of a relation pictorially -Find the inverse of a relation -Draw the inverse of a relation -Draw a graph of the inverse of a relation	J A N U A R Y	RELATIONS	Relations	6	To lead students to brainstorm on various relations involving two groups in real life. To prepare guide lines for a role play To demonstrate to students how to draw arrows to relate members of sets in relation	The students to perform a role play in order to define the relation The students to illustrate relations by pictorial presentations.	-Coloured chalks -Real objects -Manila papers -Graph papers Mathematical instruments -Maker pens.	Tanzania Insitute of Education,(2005), Basic Mathematics Book III,Educational Publisher LTD,Dares Salaam	Students to explain the meaning of relation and draw arrows to relate members of sets in relation	
		3		Graph of a Relation	3	To lead students through questions and answers to plot a graph of a relation in the coordinate system.	The students to draw a graph of a linear inequality.	Text diagram	Tanzania Institute	Students to plot a graph of relation	
		4		Domain and Range of a relation	3	To lead students to show the domain and range of a Relation by using pictorial representation	-To show and state the domain and range from graphs and pictorial representation.	Text diagram		Students to identify the domain and range of a relation	
		F E B R U A R Y		Inverse of a relation	6	To lead students to a discussion on the inverse of a relation and use of the inverse notation. To show to students the inverse of a relation by using pictures. To lead students to find the inverse a relation -The teacher to demonstrate to students how to draw the graph of the inverse of a relation	-The students to explain the inverse of relation using the inverse notation. And -The students to practice on showing the inverse of a relation pictorially -The students to solve problems involving relation in real life. -The students to draw the graph of the inverse of relation'	Text diagram		Students to identify and use and draw graph of inverse of relation	

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By the end of Form Three Course Students should have developed competence in applying Functions in real life related problems	The student should be able to:- -Explain the concept of a function. -Represent functions pictorially. -Identify functions among relations -State domain and Range of a function.	FEBRUARY	2	FUNCTION	Representation of a function 6	To lead students through questions and answers to discuss the concept of a function To demonstrate to students how to represent functions pictorially To lead through questions and answers to discuss conditions for a relation to be a function.	The students to solve problems related to the concept of a function and the use of function notation The students to represent function pictorially The students to identify functions among relations	-Rubber bands -Manila papers -Marker pens -Colored chalks -Graphs -Illustrations of functions - Mathematical instruments -Squared paper.	of Education,(2002) Secondary School basic mathematics book Three ,Educational publishers LTD,Daees Salaam	students to solve problems related to the concept of a function and the use of function notation The students to represent function pictorially	
To draw graphs of functions and Identify their properties	The student should be able to:- -Draw graphs of functions -Explain the inverse of a function -Show the inverse of a function pictorially -Find the inverse of a function -Draw a graph of the inverse of a function -State the domain and range or inverse of function.		3		Domain and range of a function 3	Guiding students to identify the domain of function. And state the range of a function	students to identify the domain of function. And state the range of a function	Rubber bands -Manila papers -Marker pens -Colored chalks -Graphs -Illustrations of functions - Mathematical instruments -Squared paper.		students to identify the domain of function. And state the range of a function	
			3		Graphic functions 3	The teacher to lead students to draw the graphs of step functions and polynomial functions up to the third degree. - discuss the behavior of graphs of functions.	The students to draw the graphs of step functions and polynomial function up to the third degree. -The students to state the behavior of graphs of functions.			students to draw the graphs of step functions and polynomial function up to the third degree.	
			4		Inverse of a function 6	To explain the inverse of function and the use of the Inverse function notation. To lead students to show the inverse of a function pictorially To demonstrate to students how to draw the graph of the Inverse of a function	The students to do exercises involving inverse of functions. The students to explain the behavior of pictures of inverses of one to one function The students to draw graphs of inverse of functions.			students to explain the behavior of pictures of inverses of one to one function	

COMPETENCE	OBJECTIVES	CONTENTS	MAIN TOPIC	SUB TOPIC	PERIOD	TEACHING ACTIVITIES	LEARNING ACTIVITIES	T/L-MATERIALS	REFERENCE	ASSESSMENT	REMARKS
By the end of Form Three Course Students should have developed competence in applying statistics in daily life	The student should be able:- -To calculate the mean from a set of data frequency distribution table and histogram. -To find the median using frequency distribution table and cumulative curve. -To interpret the median obtained from the data.	MARCH	STATISTICS	Mean	6	To lead students to obtain statistical data such as HIV/AIDS road Safety education, child, labour and gender.	The students to calculate the mean given frequency distribution table histogram and data from real life situation.	-Graph papers -Chart with data of HIV/AIDS road safety education child labour -Graph board -Squared paper -Geometrical instruments	Tanzania Institute of Education,(2005), Basic Mathematics Book III,Educational Publisher LTD,Dares Salaam	students to calculate the mean given frequency distribution table histogram and data from real life situation.	
						To lead students, to calculate the mean from frequency distribution for ungrouped and grouped data.	Students to calculate the mean from frequency distribution for ungrouped and grouped data.				
				Median	6	To lead students to use the data to explain the concept of median	The students to Identify and state the median from raw statistical data.			students to Identify and state the median from raw statistical data, and solve problems involving calculating the median from in grouped data.	
						To lead students to calculate the media from ungrouped data.	The students to solve problems involving calculating the median from in grouped data.				
						To lead students to estimate the median from frequency distribution tables and cumulative curve.	The students to find the median using frequency distribution tables of single and grouped data and cumulative curve.				
By the end of Form Three Course students should have developed competence in analyze and interpret statistical data	By the end of Form Three Course students should be able to represent data statistically and draw conclusion by finding mode, mean, and medium			Mode	6	To lead students to use statistic data obtained to explain the concepts of mode.	The students to identify sstate the mode from statistical data.			students to identify sstate the mode from statistical data and calculate the mode from grouped data.	
						To lead to calculate the mode from a set of data.	The students to calculate the mode from grouped data.				
						To lead students to Identify the modal class.	The students to use model class to estimate the mode.				
						To lead students to estimate the mode from histogram.	The students to find the mode from frequency distribution tables and histograms.				

COMPETENCE	OBJECTIVES		MAIN TOPIC	SUB TOPIC	P E R I O D	TEACHING ACTIVITIES	LEARNING ACTIVITIES	T/L- MATERIALS	REFERENCE	ASSESSMENT	REMARK S
Application of computations on sequences and series to discover mathematical patterns and solve problems on compound interest	The student should be able:- -To explain the concept of sequence -To Identify an arithmetic progression (AP) and Geometric progression (G.P) -To find the general term of an AP & G.P. -To derive the formula for sum of AP & GP -To calculate the arithmetic mean and Geometric mean. -To calculate compound interest using formula.	A P R I L	2	SEQUENCES AND SERIES	6	To lead students to discuss the concept of a sequence.	Students to extend terms of a given sequences.	-Member cards -Member patterns in order of ascending and descending - Mathematical tables -Calculators -Colored chalks	Tanzania Insitute of Education,(2005), Basic Mathematics Book III,Educational Publisher LTD,Dares Salaam	Students to extend terms of a given sequences, to solve problems on the nth term of a sequences and Identify AP and GP from other sequences and solve problems.	
						To guide students to find the term of a sequence.	The students to solve problems on the nth term of a sequences				
						To lead students to discuss the meaning of A. Paid G.P	The students to Identify AP and GP from other sequences and solve problems.				
						To lead students to drive the formula for the general term of AP and G.P	The students to derive the formula to find the general term of AP and GP and solve problem				
			3	Series	12	To lead students to discuss the concept of a series.	Students to explain the concept of a series			Students to explain the concept of a series, to derive the formula of the sum of AP and GP Students to explain the arithmetic mean and geometric mean	
						To guide students to derive the formula of the sum of AP and GP	students to derive the formula of the sum of AP and GP				
						To lead students to discuss how to final the arithmetic mean and geometric mean.	Students to explain the arithmetic mean and geometric mean				
			4	Compound Interest	12	To lead students to discuss the meaning of compound interest, -	The students to do calculations using the compound Interest formula			The students to do calculations using the compound Interest formula	
						To lead to derive the compound interest formula using the knowledge obtained from the G.P series.					

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By the end of Form Three Course students should have developed competence in managing use circle theorems and prove them	By the end of Form Three Course students should be able to prove and apply circle theorems	MAY	CIRCLE	Definition of terms	3	To lead Students to brainstorm on the meaning o circle, chord, radius, diameter, Circumference, areas, centre, sector, segment of a circle	The students to define Circle, chord, radius,, diameter, circumference, areas, sector , centre and segment of a circle.	Mathematical set, Ruler Colored chalks	Tanzania Insitute of Education,(2005), Basic Mathematics Book III,Educational Publisher LTD,Dares Salaam	The students to define Circle, chord, radius,, diameter, circumference, areas, sector , centre and segment of a circle			
				Central Angle	3	To lead students to discuss the relationship between centre angle and arc length ,	The students to derive the formula for the length of an arc.			The students to derive the formula for the length of an arc, to solve problems related to the formula for the length of an arc., to solve problems on converting radians to degrees and vice versa			
						To lead students to derive the formula for the length of an arc and area of a sector	The students to solve problems related to the formula for the length of an arc.						
						To lead students to find central angle in degrees and radians	The students to solve problems on converting radians to degrees and vice versa						
				3	Angle Properties	To lead students to prove the theorem related to inscribed angles.	Students in groups to prove theorems related to inscribed angles		Tanzania Insitute of Education,(2005), Basic Mathematics Book III,Educational Publisher LTD,Dares Salaam	Students in groups to prove theorems related to inscribed angles, to solve problems related to theorem			
						To lead students to apply the circle theorems in solving related problems	Students in groups to solve problems related to theorem						
				2		Chord properties of a circles	3		To lead students to discuss the chord properties of a circle	Students to prove and solve problems related to chord		The students to draw different tangent to the given circle and prove theorem related to tangent properties	
				3		Tangent Properties	6		To lead students to illustrate a tangent of a circle and prove theorems related to tangent properties To Lead students to solve problems related to tangent properties	The students to draw different tangent to the given circle and prove theorem related to tangent properties		The students to draw different tangent to the given circle and prove theorem related to tangent properties	
TERMINAL EXAMINATIONS													
TERMINAL LEAVE 31 TH MAY – 01 TH SEPTEMBER 2024													

COMPETENCE	OBJECTIVES	M O N T H		MAIN TOPIC	SUB TOPIC	P E R I O D	TEACHING ACTIVITIES	LEARNING ACTIVITIES	T/L- MATERIALS	REFERENCE	ASSESSMENT	REMARK S
By the end of Form Three Course students should have developed competence in applying knowledge of Earth as sphere in daily life	By the end of Form Three Course students should be able to understand and derive the formula used in the Earth as sphere	J U L Y	4	THE EARTH AS SPHERE	Features and location of places	6	To lead students to discuss the meaning of The Equator, Great Circle, small circle, Meridian, Latitude, Longitude and locate the place on the Earth's surface	Students in groups to locate the places along the Equator and find places on the globe.	Globe Oranges Atlas Colored chalks Graph papers		Students in groups to locate the places along the Equator and find places on the globe.	
							A U G U S T	1				
		To lead students solve navigation related to problems	Students in groups to calculate navigation related problems using scale drawing and Pythagoras									
		2		Distances along small circles	6	To lead students to find the general Formula for radius of small circles, find distances along small circles		Students solve problems using the formula for the radius of small circle		Students to solve problems using the formula for the radius of small circle and to find distance between two points the same latitude		
						Guiding Students to find distance between two points the same latitude		Students to find distance between two points the same latitude				
		By the end of Form Three Course Students should have developed competence in preparing simple Trading Account	By the end of Form Three Course students should be able to solve real life problems involving double entry and trial balance		3 & 4	ACCOUNTS	Double Entry	12	To lead students to demonstrates accounts showing the Debit Side and the Credit Side	The students to construct and label the Credit and Debit side	.Colored chalks Samples of vouchers	
To display to students the different types of ledgers and explain the meaning of ledger	The students to distinguish different types of ledger											
To lead students to post entry, close the simple accounts.	Students to exercise on closing accounts											
MIDTERM TEST												
MIDTERM BREAK 31 TH AUGUST – 16 TH SEPTEMBER 2024												

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		O C T O B E R	1	Trial Balances	6	To lead students to discuss the meaning of Trial balance	Students in groups to exercise on posting Debit and Credit balance		Tanzania Insitute of Education,(2005), Basic Mathematics Book III,Educational Publisher LTD,Dares Salaam	Students in groups to exercise on posting Debit and Credit balance	
						To Lead students to construct Trial Balance, post Debit and Credit balances and check the balances	Students individually to do exercise on checking the balance				
			2	Trading, Profit and Loss Account	6	To demonstrate how to ascertain gross profit/loss using Trading accounts	Students individually to ascertain gross profit/loss in trading Accounts	Balance sheets Ruler Manila paper		Students individually to ascertain gross profit/loss in trading Accounts	
						To demonstrate to students how to ascertain net profit/loss using Trading Accounts	Students individually to ascertain net profit/loss using profit/loss accounts				
			3	Balance Sheet	6	To demonstrate the meaning of balance sheet and lead students to construct a balance sheet.	Students to construct a balance sheet Students in groups to post entry in the balance sheet			Students to construct a balance sheet Students in groups to post entry in the balance sheet	
						To demonstrates to students how to post entry in the balance sheet	Students individually to post entries in the balance sheets				
REVISION											
REGIONAL ANNUAL EXAMINATION											
ANNUAL HOLIDAY											

