P.4 MATHEMATICS SCHEME TERM II

WK	PD	THEME	TOPIC	SUB	COM	PETENCES	CONTENT	METHOD	LIFE SKILLS	ACTIVITIES	REF	T/LAIDS
				TOPIC	Subject	Language						
4	1				The learner;	The learner;	Fraction					
1					Describes a fraction States and describes	Reads, pronounces, spells and describes key words used in the sentences - proper	A fraction is a part of a whole. $ \text{N.B: In a fraction } \frac{2}{3} \text{ . The bottom number (3) is a denominator and the top number 2) is a } $					
					different types of fractions on diagrams .	-improper -numerator -denominator	numerator. e.g. parts					
					Identifies types of fractions		$\frac{3}{4}$ a whole $=$ $=$ $\frac{2}{3}$ whole					
							Types of fractions					
							Proper fraction. The numerator is less than the denominator. e.g.					
							parts to shade					
							$\frac{3}{4}$ a whole = $\frac{3}{4}$ total parts					
							Improper fraction The numerator is more than the denominator. e.g.				sors	
							$\frac{4}{3}$, $\frac{3}{2}$ (a whole) = $\frac{1}{3}$ =				Real objects like oranges, papers, knives, pair of sciessors Chart showing types of fraction	2
							Mixed numbers Have a whole and a fraction e.g. $1 \frac{1}{2}$, $2 \frac{1}{4}$, $3 \frac{1}{3}$	ion I overy id answer	Describing the new words Identifying fractions Cut objects to form fractions	Effective communication	s like oranges, paring types of fraction	Fountain book 4 page 64 – 65 MK book 4 page 90 – 91
				actions			1 1/2 =	Demonstration Observation Guided discovery Question and answer	Describing t Identifying fi Cut objects	Effective co	Real objects Chart showi	Fountain bo MK book 4 ₁
		Numeracy	Fractions	Types of fractions			1 ½	• • • •	• • •	•	••	• •

1	2	Numeracy	Fractions	Conversion in fractions	The learner; Identifies each type of a fraction	The leaner; Reads, spells, pronounces and describes new words as -whole -numerator -denominator -improper	Converting mixed numbers to improper fractionsExampleActivityChange 3 $\frac{2}{5}$ to improper fractionChange the following mixed numbers to improper fractionsW = Whole D = Denominator D = Denominator N = Numerators = $\frac{(3x5)+2}{5}$ = $\frac{15+2}{5}$ = $\frac{17}{5}$ a) $2\frac{1}{3}$ b) $5\frac{2}{3}$	Observation Guided discovery Inquiry	Converting mixed numbers to improper fractions Identifying fractions	Problem solving , Effective communication Responsibility , Concern and appreciation	 Chart showing conversion of fractions Counter and Chalk board illustration 	 Understanding maths page 60, Mk book 4 91-92, Fountain book 4 pg. 65-66 and St. Bernard bk 4 pg 78-79
1	3	Numeracy	Fractions	Converting improper fraction to mixed numbers	Converts from one type of a fraction to another		Converting improper fractions to mixed number Example Express $\frac{5}{2}$ as a mixed number $\frac{5}{2} \iiint_{2 \text{ r 1}} \iint_{2 \text{ r 1}} \int_{2 \text{ r 1}} \frac{5}{2} = 2 \int_{2 \text{ r 2}} \frac{2 \text{ rem 1}}{5} = 2 \cdot 2$	Observation Guided discovery Inquiry	Converting improper fractions to mixed numbers	Problem solving, Effective communication Responsibility, Concern and appreciation	 Chart showing conversion of fractions Counter and Chalk board illustration 	 Understanding maths page 60, Mk book 4 91-92, Fountain book 4 pg. 65-66 and St. Bernard bk 4 pg 78-79
1	4	Numeracy	Fractions	Finding Equivalent fraction	The learner; Describes an equivalent fractions Identifies counting or natural numbers Works out problems on equivalent fractions	The learner; Reads, spells, pronounced and describes new words -equivalent -counting	Finding equivalent fraction Note - Equivalent fractions have the same value Equivalent fractions are got by multiplying a numerator and denominator by the same counting number $(1, 2, 3, 4, \dots)$ Examples Find the equivalent fraction for $\frac{2}{3}$. $\frac{2}{3} = \frac{2x2}{3x2} = \frac{2x3}{3x3} = \frac{2x4}{3x4} = \frac{2x5}{3x5}$. $\frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12} = \frac{10}{15}$	Observation Guided discovery Question and answer	Describing equivalent fractions Listing equivalent fractions	Critical thinking Effective communication Appreciation Concern	Chalkboard illustration	 St. Bernard pg. 64-65, Mk book 4 pg 83-83 Fountain book 5 pg 63-64 Understanding maths book 4 pg 60 - 61

1	5	Numeracy	Fractions	Finding the missing number	The learner; States that equivalent fractions Identifies the missing number from the list	The learner; Reads, spells, pronounces key words -equivalent	Find the missing numbers Examples Find the missing number $ \frac{1}{2} = \frac{1}{6} $ $ \frac{1}{2} = \frac{1x^2}{2x^2} = \frac{1x^3}{2x^3} = \frac{1x^4}{2x^4} = \frac{1x^5}{2x^5} $ $ \frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} $ Therefore $ \frac{1}{2} = \frac{3}{6} $ Activity Find the missing numbers	Observation Guided discovery Question and answer	Finding the missing numbers	Critical thinking Effective communication Appreciation Concern	Chalkboard illustration	 St. Bernard pg. 64-65, Mk book 4 pg 83-83 Fountain book 5 pg 63-64 Understanding maths book 4 pg 60 - 61
2	1	Numeracy	Fractions	Reducing fractions to their lowest terms	The learner; Works out problems on reducing fractions	The learner; Reads, spells and pronounces words like -reduce -fractions -lowest -term properly	Reducing fractions Note: Reducing fractions is finding the equivalent fraction by dividing the numerator and the denominator by the same number $(2, 3, 4, 5, 6, 7, 8, 9, \text{etc})$ Example Reduce $\frac{5}{10}$ to its lowest term $\frac{5}{10} = \frac{5 \div 5}{10 + 5}$ $\frac{5 \div 5}{10 \div 5} = 2$ Example II Reduce $\frac{4}{8}$ to its lowest term $\frac{4}{9} \div 2$ $\frac{1}{2}$	Guided discovery Question and answer Group discussion	Reducing fractions to their lowest term	Critical thinking Cooperation Responsibility	Chalkboard illustration Counters	Mk book 4 page 83, Fountain book 4 pg 63 St. Benerd book 4 page 69 Understanding mitc book 4 pg 65

2	2				The learner; Lists the	The learner; Reads, spells,	Arranging fractions in order					
	•				equivalent fraction	pronounces and describers new words	Example					
					Identifies the greatest and least	-ascending -descending	Arrange $\frac{1}{8}$. $\frac{1}{4}$ and $\frac{1}{5}$. In order starting with the smallest.					
					values Arranges fractions	-least greatest	8 4 5					
					in order		_					
							$\frac{1}{8} = \frac{2}{16} = \frac{3}{24} = \frac{4}{32} = \frac{5}{40} = \frac{6}{48} = \frac{7}{56}$					
							8 16 24 32 \(\delta 0\) 48 56					
							$ \frac{1}{4} = \frac{2}{8} = \frac{3}{24} = \frac{4}{16} = \frac{5}{20} = \frac{6}{24} = \frac{7}{28} = \frac{8}{32} = \frac{9}{36} = \boxed{10} $					
							4 8 24 10 20 24 28 32 30 40					og 63
				actions			1 2 3 4 5 6 7		Reducing fractions to their lowest term			Mk book 4 page 83, Fountain book 4 pg 63 St. Bernard book 4 page 69 Understanding mtc book 4 pg 65
				ring fra			$\frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \frac{4}{20} = \frac{5}{25} = \frac{6}{30} = \frac{7}{35} = \frac{8}{40}$		heir low			ountain ge 69 sk 4 pg (
				r corde				ary inswer on	ions to		stration	e 83, Fe ok 4 pa mtc boo
				in orde			1 1 1	discove on and a	ng fract	thinking ation sibility	Chalkboard illustration Counters	k 4 pagi nard bo tanding
				ctions			Smallest = $\frac{1}{8}$, $\frac{1}{5}$ and $\frac{1}{4}$.	Guided discovery Question and answer Group discussion	Reducii	Critical thinking Cooperation Responsibility	Chalkbo Counte	Mk boo St. Berr Unders
		racy	suo	Arranging fractions in order cordering fractions					•			• • •
		Numeracy	Fractions	Arran			Use a number line also for those with the same denominator					
2	3				The learner; States the	The learner; Reads, spells and	Comparing fractions using symbols (>, < or =)					
-					equivalent fractions	pronounces key words -greater than less than	> is greater than					
					Identifies the greatest and least	equal to						
					vales		✓ is less than					
					Works out problems involving comparing							
					fractions		= is equal to					
				or =)			Examples		mbols			
				ols (>, ·			1 1		ction using s)		r g	
				g symb			Compare $\frac{1}{2}$ and $\frac{1}{3}$ using >, < or =	Demonstration Observation Guided discovery Question and answer	Listing equivalent fraction Comparing fractions using symbols	gring gr	Chalkboard illustration A drawn chart showing	lection
				ns usin				onstratio rvation id discov lion and	g equiva	Creative thinking Critical thinking Appreciation Responsibility	board ill	Teacher's collection
				fractior			1 2 (3) 4 5 (6) 7 8	Demo Obser Guide Quest	Listinç Comp	Creati Critica Appre Respo	Chalkl A drav	Teach
		Numeracy	Fractions	Comparing fractions using symbols (>, < or =)			$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{6}{12} = \frac{7}{14} = \frac{8}{16}$	• • • •	• •	• • • •	• •	•
		¥	rac	E CO						1		

							$\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = \frac{4}{12} = \frac{5}{15} = \frac{6}{18} = \frac{7}{21} = \frac{8}{24}$ $\frac{1}{2} > \frac{1}{3}$ Activity Use > , < or = to complete $\frac{1}{4} = \frac{2}{8}$ $\frac{1}{5} = \frac{1}{9}$					
2	4	Numeracy	Fractions	Addition of fraction with the same denominators	The learner; Adds the fractions with the same denominator	The learner; Reads, spells words like -add -denominator	Addition of fractions Examples I 1. Add: $\frac{1}{4} + \frac{2}{4}$ $\frac{1}{4} + \frac{2}{4} = \frac{1+2}{4}$ $= \frac{3}{4}$ Example II 2. Add: $1\frac{1}{3} + 4\frac{1}{3}$ $\left(1 + 4\right) + \left(\frac{1}{3} + \frac{1}{3}\right)$ $5 + \frac{1+1}{3}$	Demonstration Observation Guided discovery Question and answer	Listing equivalent fraction Comparing fractions using symbols	Creative thinking Critical thinking Appreciation Responsibility	Chalkboard illustration Adrawn chart showing	Teacher's collection

2	5				The learner; Subtracts fractions with the same denominators Solves problems	The learner; Reads, spells and pronounces words like -subtract -fractions properly	$5 \div \frac{2}{3}$ $5 \frac{2}{3}$ $\mathbf{Activity}$ $\mathbf{Add}:$ $2\frac{1}{3} \div \frac{1}{3}$ $\frac{4}{12} \div \frac{7}{12}$ $\frac{\mathbf{Subtraction of fractions}}{\mathbf{Example I}}$ $\mathbf{Subtract}: \frac{7}{12} \cdot \frac{1}{12} \qquad \qquad 6 \div 6$					
		Numeracy	Fractions	Subtraction of fractions with the same denominators	Solves problems involving subtraction of fractions		$ \frac{7}{12} \cdot \frac{1}{12} = \frac{7-1}{12} $ $ \frac{6}{12} $ Example II Peter had $2\frac{1}{5}$ pieces of wire and gave out $1\frac{4}{5}$ to a friend. What fraction remained? $ 2\frac{1}{5} \cdot 1\frac{4}{5} $	Observation Guided discussion Question and answer	Subtracting fractions with the same denominators	Problem solving Responsibility	Chalk board illustration A drawn chart showing	Teacher's collection

3	1				The learner; Identifies the equivalent	The learner; Reads, spells and pronounces the words	$\frac{11}{5} \cdot \frac{9}{5} = \frac{11-9}{5}$ $= \frac{2}{5}$ $\frac{2}{5} \text{ remained}$ Activity Subtract : $4\frac{4}{6} \cdot 2\frac{1}{6}$ Workout : $\frac{5}{9} \cdot \frac{2}{9}$ Addition of fractions with different denominators Examples					
		Numeracy	Fractions	Addition of fractions with the different denominators	equivalent fractions Adds fractions with different denominators	pronounces the words like -addition -fractions equivalent properly	Examples Add: $\frac{1}{2} \div \frac{2}{3}$ $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{6}{12} \div \frac{7}{14}$ $\frac{2}{3} = \frac{4}{6}$ $\frac{3}{6} \div \frac{4}{6} = \frac{3+4}{6}$ $\frac{7}{6}$ 1 $\frac{1}{6}$	Observation Guided discussion Question and answer	Identifying the equivalent fractions Adding of fractions with the different denominator	Problem solving Responsibility	Chalk board illustration	 Mk. Book 4 pg 89 St. Bernard book 4 pg. 83 Fountain book 4 pg 71 Teacher's collection

							Example II $ \frac{1}{4} \cdot \frac{1}{3} $ $ \frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} $ 1 2 3 (4) 5					
3	2				The learner; Identifies the equivalent fractions	The learner; Reads, spells and pronounces the words like -fraction	$\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = \left(\frac{4}{12}\right) = \frac{5}{15}$ $\frac{3}{12} + \frac{4}{12} = \frac{7}{12}$ Subtraction of fractions with different denominators Examples $\frac{3}{3} = \frac{2}{6} = \frac{3}{9} = \left(\frac{4}{12}\right) = \frac{5}{15}$					
		Numeracy	Fractions	Subtraction of fractions with the different denominators	Subtracts fractions with different denominators	-subtraction -equivalent property	Subtract: $\frac{3}{4} \cdot \frac{2}{3}$ $\frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{12}{16} = \frac{15}{20} = \frac{18}{24} \dots$ $\frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12} = \frac{10}{15} = \frac{12}{18} \dots$ $\frac{9}{12} \cdot \frac{8}{12} = \frac{9-8}{12}$	Group discussion Guided discovery Question and answer	Identifying the equivalent fractions Subtracting fractions with the different denominator	Problem solving Creative thinking Responsibility Care and concern	Chalk board illustration	• Teacher's collection

$=\frac{1}{12}$			
Activity			
Workout the following			
$\frac{4}{9} \cdot \frac{1}{3} \qquad \qquad \frac{7}{8} \cdot \frac{1}{3}$			

3	3	Numeracy	Fractions	Conversion of fractions in decimals	The learner; Describes a decimal and decimal places Work out problems on conversion of fractions in decimals	The learner; Reads, spells, pronounces and describes new words -decimals -decimal place	Expressing fractions as decimals Note: A decimal is a number with one or more digits to the right of a decimal point. Decimal places are the number of digit to the right of a decimal point. e.g. $ \frac{1}{10} = \text{one decimal place (0.1)} $ Examples Express $\frac{3}{10}$ as a decimal Example II Express $\frac{3}{10} = 0.3$	Group discussion Guided discovery Question and answer	Identifying the equivalent fractions Subtracting fractions with the different denominator	Problem solving Creative thinking Responsibility Care and concern	Chalk board illustration	Teacher's collection
				Conversion in decimals	The learner; Works out problems on fraction in decimals	The learner; Reads sentences correctly	Convert. $\frac{24}{100}$ to decimal $\frac{24}{100}$ = 0.24 Change 2 $\frac{4}{10}$ to a decimal $\frac{4}{10}$ = 2 + $\frac{4}{10}$ = 2 + 0.4	Group discussion Question and answer	Working out problems on fractions in decimal	Problem solving Responsibility	Chalk board illustration	 MK book 4 pg. 100 – 101 Fountain book 4 pg 74 – 75

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							Activity Convert the following fractions to decimals a) $3 \frac{1}{10}$					
							b) $\frac{5}{100}$ c)4 $\frac{7}{10}$					
3	4				The learner; Writes decimals as common fraction	The learner; Reads, spells and pronounces words like -decimals -common -fraction correctly	Writing decimals as common fractions Note: $0.1 = \frac{1}{10}$ $0.001 = \frac{1}{1000}$ 0.01 = $\frac{1}{100}$ Examples Write 1.5 as a fraction 1.5 = = 1 + $\frac{5}{10}$		nal			
		Numeracy	Fractions	Writing decimals as common fractions			1.5 = = 1 + $\frac{5}{10}$ Example II Express 12.9 as a common fraction 12.9 = 12 + $\frac{9}{10}$	Group discussion Question and answer	Working out problems on fractions in decimal	Problem solving Responsibility	Chalk board illustration	 MK book 4 pg. 100 – 101 Fountain book 4 pg 74 – 75

						12 9/10					
3	5	Numeracy	Fractions Representing decimals on the number line	The learner; Draws a number of decimals Marks decimal on a number line as stated	The learner; Reads, spells and pronounces key words number line	Representing decimals on the number line	Question and answer5 Group discussion Guided discovery	Representing decimals on the number line	Effective communication Problem solving Critical thinking	Chalkboard illustration	Fountain book 4 pg. 72-73
4	1	Numeracy	Fractions Place values of decimals up to tenths	The learner; Identifies place values of decimals	The learner; Reads, spells and pronounces new words -tenths -ones	Place values of decimals Note: All place values end with letter "S" Example I Find the place value of each digit below 0.2 0 . 2 tenths ones Example II Find the place value of each in 0.12 0 . 1 2 hundredths tenths ones Activity Find the place value of the underlined number a) 0 . 347	Question and answer5 Group discussion Guided discovery	Identifying place values of decimals	Effective communication Problem solving Critical thinking	Chalkboard illustration	MK book 4 page 98

							b) 3 <u>5</u> . 12					
<u> </u>	2				The learner;	The learner;	Writing decimals in words					
∣ 4	, -				Identifies the place values of	Reads, spells and pronounces new words	Example I					
					decimals	like -Tenths	Write 0.5 in words					
						-Ones correctly	0.5 – five tenths or					
							tenths (zero point five)					
							Example II					
							Figure 0.05 is used.					
							Express 0.25 in words 0. 2 5					
							hundredths					
							tenths					
							0.25 – Twenty five hundredths					
							(zero point two five)		ω			
							Example III		lecimal			
							Write 0.574 in words		lve of c ds res	E		
							0.574	Group discussion Guided discovery Question and answer	Identifying the place valve of decimals Writing decimals in words Writing decimals in figures	Effective communication Critical thinking Appreciation Care and concern	Chalkboard illustration	
				sp			thousands	scussio iscover and a	g the p scimals	commu inking ion conce	rd illus	
				ls n wo			hundredths	oup dis iided d iestion	entifyin riting d	fective itical th precial	nalkboa	
		>		ecima			'──► tenths	ចិចិ <u>ថិ</u> 	⊉ > >	H O K O	Ö	
		Numeracy	Fractions	Writing decimals n words			Five hundred seventy four thousands	• • •	• • •	• • • •	•	•
	3	ž	표	×	The learner;	The learner;	Writing decimals in figures					
4	,				Identifies the place values of	Reads, spells and pronounces new words	Example I					
					decimals	like -Tenths	Write four tenths in figure					
						-Ones correctly	$\frac{\text{ones/tenths}}{0} = \frac{4}{4} = \frac{0.4}{10}$		mals			
							0 / 4 10		of deci			
							Evample II	.ec	e valve words figures	ation	tion	
							Example II Write two and five tenths in figures	ssion overy d answ	nals in	nmunic ing ncern	illustra	
				Writing decimals n words			ones/tenths two and five tenths	Group discussion Guided discovery Question and answer	Identifying the place valve of decimals Writing decimals in words Writing decimals in figures	Effective communication Ortical thinking Appreciation Care and concern	Chalkboard illustration	
				mals n			$\frac{2}{5}$ 5 2 + $\frac{5}{10}$	Group Guide Quest	Identi Writin Writin	Effect Critica Appre Care	Chalk	
		racy	ons	ig deci			10	• • •			•	•
		Numeracy	Fractions	Writin			= 2 + 0.5					

							= 2.5			
4	4	Numeracy	Fractions	Addition of decimals	The learner; Arranges decimals according to their place values Adds decimals	The learner; Reads, spells and pronounces key words correctly -decimals -vertically -number line	Add: 0.2 + 0.3 0. 2 +0.3 0. 5 Number line Add: 0.2 + 0.3 0. 0.1 0.2 -0.4 0.7 -0.8 -0.9 -0.8 -0.9 -0.8 -0.9 -0.8 -0.9 -0.8 -0.9 -0.8 -	Effective communication Creative thinking Appreciation Care	A chart showing charts on a number line Chalkboard illustration	MK book 4 page 126 -127 Understanding mathematics book 4 page 113
4	5	Numeracy	Fractions	Finding parts of a whole	The learner; Divides the whole by the given fraction Explains the meaning of the word "of"	The learner; Reads, spells and pronounces words correctly -of -divide -share	Finding parts of a whole Example What is $\frac{1}{3}$ of 9? $\frac{1}{3} \times 9$ $3 \times 3 = \frac{9}{00} 9 \div 3 = 3$	•	•	•

	1				The learner;	The learner;	Example II $\frac{3}{3} = 3$ Example II $\frac{1}{3} \text{ of } 9 = 3$ John was given sh. 1500. He spent $\frac{2}{3}$ of the money. How much did he spend? $\frac{2}{3} \text{ of sh. 1500}$ $\frac{2}{3} \text{ of sh. 1500}$ $\frac{3}{3} = \frac{2x \text{ sh. 1500}}{3} = \frac{3}{3} = $					
5		Geometry	2 dimensional	Identifying 2 dimensional shapes	Identifies the objects Draws the objects States the names of the objects given Matches the objects to their geometric names	Reads, spells and pronounces key words correctly -shapes -geometry -circle -rectangle -square	Note: Geometry deals with shapes, angles, lines, surface, planes, sides triangle square kite rectangle	Question and answer Group discussion Guided discovery	Identifying the shapes Drawing the objects Stating the names of the shapes Matching the objects to	Effective communication Responsibility Concern Appreciation	Chart showing shapesChalkboard illustration	MK book 4 page 126 – 127 Understanding mathematics book 4 page 113.

						parallelogram pentagon Rhombus Note All plan (flat) figures are 2 – dimensional					
5	2		D di	The learner; Defines the lifferent parts of the circle Calculates the flameter when adius is given.	The learner; Reads, spells and pronounces different words correctly -centre -circumference -chord -diameter -radius	Parts of a circle D Where by:- O - centre OE - Radius OC/OD - Radius AB - Chord DC - Diameter Note a) Centre - Origin of a circle	•	•	•	•	•

				I	T	I	h) Olympian distance with	I	I			
							b) Circumference - distance round a circle					
							c) A circle – circular / round object					
							d) Chord – a line drawn cross the circle					
							e) Diameter – longest line passing through the circle to the circumference					
							f) Radius – short line from the centre to the circumference					
							Note:					
							Diameter is trice the radius radius is a half the diameter					
							Diameter = 2r					
							1					
							Radius = $\frac{1}{2}$ D					
							2					
							Finding diameter when radius is given					
							D = 2r					
							Example I					
							Find the diameter of a circle whose radius is 4cm					
							D = 2r					
							D = 2 x r					
							D = 2 x 4cm					
							D = 8cm					
							Therefore- diameter = 8cm					
							Example II					
							Find the diameter of a circle whose radius is 8cm					
	3				The learner;	The learner;	Finding radius when diameter is given					
5					Identifies the radius and	Reads, spells and pronounces the words	Example					
					diameter	correctly -radius	Find the radius of a circle whose diameter is 10cm					
				a	States the formula for finding radius	-diameter formula	D = 10cm					
				ter is given			1					
				neter			$R = \frac{1}{2}D$		_ sn		circle	
		try	ional	e dian			2		amete ng rad		s of a c	
		Geometry	2 dimensional	en th			1		and dig	uo	g parts	. 138
		9	2 di	w sn			$R = \frac{1}{2} \times D$	n y iswer	adius a	ınicati	Jowing	135 -
				Finding radius when the diamet				Group discussion Guided discovery Question and answer	Identifying the radius and diameter Stating the formula for finding radius	Effective communication Critical thinking Appreciation Concern	A drawn chart showing parts of a circ	MK book 4 page 135 - 138
				indin			1 5cm	up disc ded dis stion a	itifying ing the	ctive c cal thii reciatii cern	awn c	book 2
				<u>"</u>			$R = \frac{1}{2} \frac{5cm}{x^{40cm}}$	Groi Guir Que	lder Stat	Effe Criti Appl Con.	A dr	Σ X
								• • •			•	
							Example II					
1	1											1

							Find the radius of a circle whose diameter is 12cm					
_	4				The learner;	The learner;	Finding area and perimeter of rectangles					
5					States the properties of a	Reads, spells and pronounces words like	Example					
					rectangle	-widths -lengths	Find the area and perimeter of the figure					
					States the formula of finding area and	-area -perimeter						
					perimeter	-rectangle	P					
							+					
							lh d					
							8cm					
							Area					
							A = L x W					
							A = 8cm x 5cm					
							A = 40cm ²					
							<u>Perimeter</u>					
							P=L+W+L+W					
							P = 8cm + 5cm + 8cm +5cm		Ф			
							P = 26cm Example II		ectangl			
							Find the perimeter of the figure below		ngle and re		a circle	
				gles			II		a recta		arts of a	ω
				rectan				ver	ies of a	cation	wing pa	35 - 13
				rea of			+ 6cm	ussion overy nd ansv	propert iulae fc	mmuni cing	art sho	page 1
				and a				Group discussion Guided discovery Question and answer	Stating the properties of a rectangle Stating formulae for finding area and rectangle	Effective communication Ortical thinking Appreciation Concern	A drawn chart showing parts of a circle	MK book 4 page 135 - 138
			ional	rimeter and area of rectangles			9cm	Grou Que	Statli	Effec Critic Appr Conc	A dra	¥
		Geometry	dimensio	ng per							•	•
		Geon	2 din	Finding pe								
5	5			o	The learner; States the	The learner; Reads, spells and	Finding area and perimeter of square	ار ار ک			fa	Φ.
				meter	properties and formula of finding	pronounces words correctly	Find the area and perimeter of the figure	Group discussion Guided discovery Question and answer	Stating the properties of a square	Effective communication Critical thinking Appreciation	A drawn chart showing parts of a	MK book 4 page 135 - 138
				nd peri	area and perimeter of a	-side -square	 	roup di uided c uestior ıswer	tating tl opertie tuare	ffective ommun ritical th	drawn lowing	K book 35 - 13i
		>	sional	area ar re	square	-equal	-	000 g	N F 28	<u>⊞ 80</u> ₹0	A S	≥ €
		Geometry	dimensional	Finding area and perimeter of the square				• • •	•		•	•
		త	2 (Fir								

							A = S x S A = 5cm x 5cm A = 25cm ² Perimeter P = S + S + S + S P = 5cm + 5cm + 5cm P = 20cm Example II Find: i) Area ii) Distance around the figure above					
6	1	Geometry	2 dimensional	Finding are a and perimeter of a triangle	The learner; States the properties of a triangle States the formula of finding area and perimeter	The learner; Reads, spells and pronounces words correctly -triangle -height -base	Finding area and perimeter of a triangle Example Find the area and perimeter 4cm 5cm 8cm	Group discussion guided discovery Question and answer	Stating the properties of triangle Finding the area and perimeter	Effective communication Critical thinking Appreciation Care	Chalk board illustration	MK book page 103.

							$A = \frac{1}{2} \times b \times h$ $A = \frac{1}{2} \times \frac{4cm}{3cm} \times 4cm$ $A = 4cm \times 4cm$ $A = 16cm^2$ $\frac{Perimeter}{P = S + S + S}$ $P = 8cm + 5cm + 5cm$ $P = 8cm + 10cm$ $P = 18cm$ $P = 18cm$ Example II Find the area and perimeter of the figure above.					
6	2	Geometry	2 dimensional	Drawing line segment and measuring angles	The learner; Draws line segments Measures angles	The learner; Reads, spells and pronounces words correctly -measure -lines -segments	Drawing line segments Examples Draw a line segment of side AB = 5cm 5cm A B Example II Using a ruler measure line PQ P Q	Guided discovery Group discussion Question and answer	Measuring angles using a protractor Drawing angles using a protractor	Effective communication Critical thinking Appreciation Concern and care	•	•

							PQ = 7.7cm					
6	2			səlí	The learner; Draws line segments Measures angles	The learner; Reads, spells and pronounces words correctly -measure -lines -segments	Measuring and drawing angle using a protractor Examples Measure the following angles using a protractor		tractor			
		Geometry	2 dimensional	Drawing line segment and measuring angles			Example II Using a protractor, draw the following angles a) 70° b) 55° c) 360	Guided discovery Group discussion Question and answer	Measuring angles using a protractor Drawing angles using a protractor	Effective communication Critical thinking Appreciation Concern and care	•	•
		Geometry	2 dimensional	Drawing shapes using a protractor	The learner; Measures angles using a protractor	The learner; Reads the words -protractor -accurately properly	Drawing angles using a protractor Examples Use a protractor to draw the following angles 1. 30° 2. 80° 3. 77° 4. 53° 5. 45° 6. 95°	Guided discovery Group discussion Question and answer	 Measuring angles using a protractor Drawing angles using a protractor 	Effective communication Critical thinking Appreciation Concern and care	•	•
		Geometry	2 dimensional	Drawing shapes using a protractor	The learner; Draws shapes using a protractor	The learner; Reads, spells and pronounces words like -square -protractor -rectangle -square	Drawing shapes using a protractor Examples Draw the following shapes Square	Guide d discov ery Group discus	Meas uring angles using a	Effecti ve comm unicati	•	•

							Rectangle Gem Triangle 7cm 7cm					
6	3	Geometry	2 dimensional	Constructing angles of 90 0 and 60 0 .	The learner; Constructs angles of 90° and 66°.	The learner; Spells and reads words -construct -angles correctly	Constructing angles Examples Construct the following angles 90° Example II	Group discussion Guided discovery Question and answer	Constructing the given angles	Effective communication Critical thinking Appreciation Care	Mathematical instruments	MK. Mathematics book 4 page 93.95

							600					
6	4	Geometry	2 dimensional	Constructing equilateral triangle using a pair of passes	The learner; States the steps taken to construct an equilateral triangle Follows all the steps of constructing an equilateral triangle	The learner; Reads, spells and pronounces words like -equilateral -triangle -pair of compasses	Constructing a triangle Examples Using a ruler, a pencil and a pair of compasses, construct an equilateral triangle ABC of sides 4cm Example III Sketch	Group discussion Guided discovery Question and answer	Constructing the given angles	Effective communication Critical thinking Appreciation Care	Mathematical instruments	MK. Mathematics book 4 page 93.95
6	5	Geometry	2 dimensional	Constructing a square using a pair of compasses	The learner; States the properties of the square Follows all the steps of constructing a square	The learner; Spells, reads and pronounces words properly -square -construct -steps	Construction a square Examples Sketch C A 6cm B	Group discussion Guided discovery Question and answer	Stating the properties of the square Following all the steps of constructing a square	Effective communication Critical thinking Appreciation Care and concern	Mathematical instrument Graph book	MK book page 93 – 95 Teacher's collection

					S P Gcm Q					
7	1		The learner; States the properties of a rectangle Follows all the steps of constructing a rectangle	The learner; Spells, reads and pronounces words properly -rectangle -construct	Example Construct a rectangle PQRS of sides PQ = 4cm (length) and RQ = 2cm Sketch S 2cm P 4cm Q					
	Geometry	2 dimensional Constructing a rectangle using a pair of compasses			Sketch S 2cm Acm Q	Group discussion Guided discovery Question and answer	 Stating the properties of the square Following all the steps of constructing a square 	Effective communication Critical thinking Appreciation Care and concern	Mathematical instrument Graph book	MK book page 93 – 95 Teacher's collection

7	2			gles	The learner; Describes the right angle Identifies right angles	The learner; Reads, spells and describes new words -angles -right angles	Right angles Right angles are formed by two or more lines meeting at 990°. Right angles 90° Solving equations involving right angles Examples Find the value of x x + 37° = 90° x + 37° - 37° = 90° - 37° x + 0 = 53° x = 53° Example II y 55°	Question and answer Guided discovery Group discussion	Describing right angles Identifying right angles Solving equations involving right angles. Describing straight line angles	Problem solving Effective communication Appreciation Care	Chalkboard illustration	Teacher's collection
			onal	ng right an			$Y + 55^{\circ} = 90^{\circ}$ $Y + 55^{\circ} - 55^{\circ} = 90^{\circ} - 55^{\circ}$	Questior Guided c Group di	Describir Identifyir Solving e Describir	Problem Effective Apprecia Care	Chalkbo	Teacher'
		Geometry	2 dimensional	Recognizing right an			$Y + 0 = 35^{\circ}$ $Y = 35^{\circ}$	•••	• • • •	• • • •	•	•
7	3	Geometry	3 dimensional	Straight line angles	The learner; Describes the straight line angles	The learner; Spells, reads and pronounces words -straight -line -angle	Finding equation involving straight angles Examples Find the angle marked n.	Questi on and answe r	Descri bing right angles Identif	• Proble m solvin g 9	Chalk board	• Teach er's collect ion

	4				The learner;	The learner;	n+630 = 180° n+63° - 63° = 180° - 63° n+0 = 117° n = 117° n = 117° ldentifying and drawing solid shapes					
7	4	Geometry	3 dimensional	Identifying solid shapes	Ine learner; Identifies solid shapes Draws solid shapes Names part of some solid shapes	Reads, spells and pronounces key words like -solid shapes -vertical -edges -faces	Note These are solid / space shapes because they occupy space e.g. cuboid. faces =6 edges = 12 vertices = 8 Cube All sides are equal edges = 12 faces = 6 vertices = 8	Guided discovery Group discussion Question and answer	Drawing solid shapes Naming parts of some solid shapes	Effective communication Responsibility Appreciation Care and concern	Chart showing solid shapes Chal board illustration	 MK book 4 page 128 – 130 St. Bernard book 4 page 110 - 112

							circular faces = 2 curved surface = 1 vertices = 0 circular faces = 1 curved surface = 1 vertices = 1 Triangular prism triangular faces = 2 rectangular faces = 3 vertices = 6 edges = 9					
7	5	Geometry	3 dimensional	Finding the volume of solid shapes (Cuboids and cubes)	The learner; Describes volume States steps of getting volume Works out problems involving volume	The learner; Reads, spells, pronounces and describes new words -volume -cubic unites -length -width -height	Finding volume of cuboid and cubes Note: Volume is the amount of space occupied by an object Volume is got be Multiplying three sides of a shape Volume is measured in cubic metres Examples Find the volume of a cuboid below 3cm V = (L x W x H)	Guided discovery Question and answer Group discussion	Stating steps of getting volume Working out problems involving volume	Critical thinking Effective thinking Responsibility Appreciation	Chart showing volume on cuboid and cubes	• Teacher's collection

							V = (4 x 2 x 3)cm ³					
							V = (8 x 3)cm ³					
							V = 24cm ³					
							Example II					
							Calculate the volume of the cube below					
							Volume = Side x Side x Side Volume = (4 x 4 x 4) mm³ (16 x4) mm³					
							Volume = 64mm ³					
8	1				The learner; Describes a tally	The learner; Reads, spells,	Tally marks (collecting data)					
0					Collects, records,	pronounces and describes new words	Not					
					displays and	-tallies	e: Tallies can be a bundle of sticks used to represent information in a group of fives. In					
					interprets data	-data	tallies for each fifth item that is counted, a line is drawn a cross the first four.					
					Works out problems on tally		Example 1					
					marks		Given the following information, draw tallies to represent the data.					
							5, 10, 8, 12, 15, 19, 7					
							Solution					
							5 = //// 12 = //// ///		'a			
							8 = 		ets dai			
							7 = //// // 19 = //// //// //// 10 = ///// / ///		ıterpre			თ
							Example 2		and ir Illy ma	£	· ·	118 - 119
							Fill in the number represented bythe tallies below.		Describing tallies Collecting records displays and interprets data Working out problems on tally marks	Effective communication Critical thinking Creative thinking Appreciation and responsibility	tallies	
		data					a)	Guided discover Question and answer Group discussion	s ds dis blems	unicat g d resp	Draw a chart showing ta Chalkboard illustration	MK. Book 4 page 118 St. Bernard book 4 page
		s and					b) ///// / = 6	scover and ar cussio	y tallie recor ut pro	ommi nking ninking on an	art sh d illus	4 pag d boo
		graph					c) ### / = 11	led dit stion a	cribing seting king o	ctive c cal thi ative th	v a ch kboar	Book
		n of ç	Бu				d) /// = 3	Guic Que Grot	Desc Colle Worl	Effer Critii Crea Appr	Drav Chal	MK. St. E
		etatio	andli	ıarks			e)	• • •				• •
		Interpretation of graphs and data	Data handling	Tally marks			·	-	-			

8	2	Interpretation of graphs and data	Data handling	Interpreting a tally graph	The learner; Draws tally graph Identifies the tallies Interprets the tally graph correctly	The learner; Reads, spells and describes key words correctly -interpret -graph -tallies	Interpreting tally graph Example Primary four child counted cars which came to his father's garage last week. This is what he recorded. Day Corona Land rover Starlet Carina				- Guided discovery - Question and answer - Group discussion	- Drawing tallies graph - Interpreting tally graph	- Effective communication - Critical thinking - Appreciation - Responsibility	- A chart showing tally graph	- Mk book 4 page 119 - St. Bernard book 4 page 120
8	3	Interpretation of graphs and data	Data handling	Interpreting picto graph	The learner; Describes pictograph Identifies the scale for each given picto grapg Solves problems on interpreting a picto graph	The learner; Reads, spells, pronounces and describes new words -picto graph -scale -interpreting -graph	Note: Pic Picto gra Scale is v Example 1. 2. Mon Tue Wed Thur Fri Scale	Tue Wed Thur Fri Scale = 5 children 1. How many children were absent on Monday? (5x7) = 35 children.			- Guided discovery - Group discussion - Question and answer	- Descry pictograph - Identifying the scale for each given picto graph - Solving problem on interpreting a picto graph	- Effect communication - Creative thinking - Appreciation - Care and concern	- Chart showing pictograph	- MK book 4 pg. 115 - St Bernard book 4 pg. 115 - Fountain book 4 pg 101 and understanding MTC pg. 104

8 4	Interpretation of graphs and data	Data handling Drawing picto graph	The learner; Sets his / her suitable scale Selects his / her pictures Draws the pictures	The learner; Reads, spells and pronounced the following words correctly -pictograph -scale -symbols	Drawing pictograph Note: To draw a pictograph, use symbols which may represent on or more items. Set your own scale Example The table below shows the number of trees planted by six farmers Farmer Akello Matovu Nagawa Nansiko No. of trees 60 50 80 90 Use the above information to draw a pictograph Scale = 10 trees Akello Matovu Nagawa Nansiko Rusa Songa	- Guided discovery - Group discussion - Question and answers	- Drawing pictograph - Identifying suitable scale	- Effect communication - Critical thinking - Concern, care and - Responsibility	- A chart showing drawn pictograph	- Fountain book 4 pg 102 - MK book 4 page 117
8 5	Interpretation of graphs and data	Data handling Interpreting line graph	The learner; Draws the pictographs Works out questions involving line graph	The learner; Reads the questions about line properly	Interpreting line graphs Note: A line graph uses lines represent information Example Line graph below shows daily attendance of pupils for a week.	Group discussion Guided discovery Question and answer	Drawing the line graph Working out questions about line graph	Effect communication Critical thinking Care	A chart showing line graph	Teacher's collection

							Questions 1. How many pupils were provided and the second	ame attendance?						
9	1	Interpretation of graphs and data	Data handling	Drawing line graphs	The learner; Describes a line graph Solves problems on interpreting line graphs	The learner; Reads , spells, pronounces and describes words properly	Drawing line graphs Note: set your own scale Example The table below shows the plates the fa Colour of plate No. of plates Use the above information to draw a line 70 60 50 40 30	Green 20	ration. Red 30	- Guided discovery - Question and answer	- Describing a line graph - Solving questions involving line graph	Critical thinking Question solving Appreciation Care and love	- Chart showing line graphs	- Teacher's collection

							Green Red	Blue Yellow Colour of plates					
9	2	Interpretation of graphs and data	Data handling	Graph	The learner; Describes a bar graph Identifies vertical and horizontal scale Works out questions involving bar graph	The learner; Reads, spells and pronounces words correctly -bar graph -horizontal -vertical -scale	Note: A bar graph uses bars to represent infor State the scales both vertical and horizontal Example The graph below shows the amount of water by 30 25 20 15 10 Rena Jona Musa Dinah Children 1. Who brought the greatest amount Jona 2. Who brought 20 litres of water? Musa 3. How much water did Rena and Musa 25 litres 4. How much water did the four child 65 litres	rought from the well by four children. t of water lusa bring?	- Group discussion - Guided discovery - Brain storming - Question and answer	- Descry a bar graph - Identifying vertical and horizontal scale - Working out questions involving bar graph	- Ortical thinking - Responsibility - Awareness - Appreciation	- Chart showing graph	- MK book 4 page 122 - Fountain book 4 pg. 105 - Understanding mtc book 4 pg 107
9	3	Interpretation of graphs and data	Data handling	Drawing bar graph	The learner; Draws the bar graphs Identifies the scale vertically and horizontally	The learner; Reads and writes sentences properly	Drawing bar graphs Note: Set a suitable scale Example The table below shows the litres of milk a school Day Monday Tuesday	Group discussion Question and answers Brain storming	Drawing the bar graph Identifying the scale vertically and horizontally	Critical thinking Logical reasoning Care Love	Chart showing b ar graph	Undertsnaidngs mtc book 4 pag 107	

					T				1	1	1		
							Wednesday	60					
							Thursday	90					
							Friday	85					
							Saturday	70					
							100 90 80 70 60 40 30 20 10 Mon Tue Wed Thur Fr	i Sat					
	4				The learner;	The learner;	<u>Statistics</u>						
9					Describes all terms used	Reads, spells and pronounces the	Note: This branch deals with collection recording	g , analyzing and interpretation of information		ven			
	&				Collects records,	following words properly	Terms used include:-	,,g		ata gi			
	_				interprets the data	-mean				the d			
	5				given	-range -mod	Mode (modal) Item that appears many times tha	-		reting			
						-modal frequency -median	Modal frequency The number of times as mode			d interp			
		ta ta					Range The difference between the highest and t	the lowest.	Je.	g and	cation	tion ds	_
		nd da					R = H – L		very l answ sion	II term cordin	ımunik *	lustrat ng wor	llection
		Interpretation of graphs and data					Median. The middlest item arranged in order from	m the smallest to the biggest.	Guided discovery Question and answer Group discussion	Describing all terms used Collecting recording and interpreting the data given	Effective communication Responsibility Appreciation	Chalkboard illustration Cards showing words	Teacher's collection
		ion of	ling				Mean / average The total number of items divide	ed by the number of items	ලි ලී ලී	S D	Re: Apr	Sa G	Ĕ Ĕ
		retati	hand	stics			-	ou of the manifest of floring		• •			•
		Interp	Data handling	Statistics			Mean = <u>total number</u> number						
				l									