

RATIONALISED SCHEMES OF WORK

MATHEMATICS

GRADE 7

TERM 3

TEACHER'S NAME.....

TSC NUMBER.....

SCHOOL.....

We ek	Less on	Strand	Sub-strand	Specific-Learning outcomes	Learning Experience	Key Inquiry Question(S)	Learning Resources	Assessment Methods	Reflection
1	1	International postal charges	Surface airlifted mail	By the end of the lesson, the learner should be able to: a) Define the term surface airlifted mail. b) State the use of surface airlifted mail. c) Draw the table of the surface airlifted mail in learner's book. d) Appreciate the use of surface airlifted mail.	Learners are guided to define the term surface airlifted mail. Learners to state the use of surface airlifted mail. In groups, learners are guided to draw the table of the surface airlifted mail in learner's book.	What is surface airlifted mail?	Place value chart Ruler Digital devices <u>Spark; Story moja Mathematics Learner's Book Grade 7 pg. 155</u>	Oral questions Oral Report Observation Written exercise	
	2	International postal charges	Surface airlifted mail	By the end of the lesson, the learner should be able to: a) State the procedure of calculating surface airlifted mail. b) Calculate the surface airlifted mail. c) Have fun and enjoy calculating surface airlifted mail.	Learners are guided to state the procedure of calculating surface airlifted mail. Learners are guided to calculate the surface airlifted mail.	How do you calculate surface airlifted?	Place value chart Ruler Digital devices <u>Spark; Story moja Mathematics Learner's Book Grade 7 pg. 156-157</u>	Oral questions Oral Report Observation Written exercise	
	3	International postal charges	Postal orders	By the end of the lesson, the learner should be able to: a) Define the term postal orders. b) State the use of postal orders. c) Draw the table of the postal orders in learner's book. d) Appreciate the uses of postal orders	Learners to define the term postal orders. Individually, learners to state the use of postal orders. Learners are guided to draw the table of the postal orders in learner's book	What are postal orders?	Place value chart Ruler Digital devices <u>Spark; Story moja Mathematics Learner's Book Grade 7 pg. 158</u>	Oral questions Oral Report Observation Written exercise	
	4	International postal charges	Postal orders	By the end of the lesson, the learner should be able to: a) State the procedure of	Learners are guided to state the procedure of calculating surface airlifted mail.	How do you calculate postal orders?	Place value chart Ruler Digital devices	Oral questions Oral Report Observation	

				calculating surface airlifted mail. b) Calculate the surface airlifted mail. c) Have fun and enjoy calculating surface airlifted mail.	Learners are guided to calculate the surface airlifted mail		<u>Spark; Story moja Mathematics Learner's Book Grade 7 pg. 158-159</u>	Written exercise	
	5	International postal charges	Mobile money transaction	By the end of the lesson, the learner should be able to: a) Explain mobile money transactions. b) Discuss and list the various ways in which money can be transferred from one person to another. c) State the uses of mobile money transactions. d) Appreciate the uses of mobile money transaction.	Learners are guided to explain mobile money transactions. In groups, learners are guided to discuss and list the various ways in which money can be transferred from one person to another. Learners to state the uses of mobile money transactions	What is mobile money?	Place value chart Ruler Digital devices <u>Spark; Story moja Mathematics Learner's Book Grade 7 pg. 160</u>	Oral questions Oral Report Observation Written exercise	
2	1	International postal charges	Mobile money transaction	By the end of the lesson, the learner should be able to: a) State the procedure of calculating mobile money transactions b) Calculate mobile money transaction. c) Have fun and enjoy calculating mobile money transaction.	Learners are guided to State the procedure of calculating mobile money transactions Learners are guided to Calculate mobile money transaction		Spark; Story moja Mathematics Learner's Book Grade 7 pg. 160-162 Place value chart Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	2	Geometry	Angles; Measuring angles	By the end of the lesson, the learner should be able to: a) Look around their classroom and identify geometrical shapes. b) Find places where right angles are formed.	In groups, learners are guided to look around their classroom and identify geometrical shapes then find places where right angles are formed. In groups, learners are	What are geometrical shapes?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 163 Place value	Oral questions Oral Report Observation Written exercise	

				c) Adjust the classroom door to form different angles. d) Appreciate different kinds of geometrical shapes.	guided to adjust the classroom door to form different angles		chart Ruler Digital devices		
	3	Geometry	Angles; Measuring angles	By the end of the lesson, the learner should be able to: a) Draw the hands of a clock to represent; acute angle, right angle, obtuse angle and straight angle. b) Identify the type of angle represented by different figures in learner's book. c) Appreciate different kinds of geometrical shapes.	Learners are guided to draw the hands of a clock to represent; acute angle, right angle, obtuse angle and straight angle. Learners are guided to identify the type of angle represented by different figures in learner's book	How many geometrical shapes do you know?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 163-164 Place value chart Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	4	Geometry	Angles on a straight line	By the end of the lesson, the learner should be able to: a) Draw the figure on learner's book. b) Explain the term adjacent angles. c) Measure the angles. d) Enjoy forming angles on a straight line. e) Appreciate angles on a straight line.	Learners are guided to draw the figure on learner's book. Learners are guided to explain the term adjacent angles. Learners to measure the angles on a straight line.	What are adjacent angles?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 164-165 Place value chart Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	5	Geometry	Angles at a Point	By the end of the lesson, the learner should be able to: a) Draw the figure in learner's book pg. 165 or on the chalkboard. b) Work out the sum of all angles they have measured. c) Enjoy forming angles at a point.	Learners are guided to draw the figure in learner's book pg. 165 or on the chalkboard. Learners are guided to work out the sum of all angles they have measured	How do you form angles at a point?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 165-167 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	

3	1	Geometry	Angles at a Point	By the end of the lesson, the learner should be able to: a) Use an IT device to watch a video clip on how to draw angles at a point. b) Draw angles at a point. c) Appreciate angles at a point	In groups, learners to use an IT device to watch a video clip on how to draw angles at a point. Learners to draw angles at a point.	How do you draw angles at a point?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 166-167 Assessment books Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	2	Geometry	Angles on a transversal	By the end of the lesson, the learner should be able to: a) Draw two parallel lines and a transversal as shown in learner's book. b) Discuss which pair constitutes; alternate, corresponding and vertically opposite angles. c) Appreciate each other's ideas.	In groups, learners to draw two parallel lines and a transversal as shown in learner's book 7 pg. 167 In groups, learners to discuss which pair constitutes; alternate, corresponding and vertically opposite angles	What is critical thinking in mathematics?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 167 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	3	Geometry	Angles on a transversal	By the end of the lesson, the learner should be able to: a) Explain the meaning of alternate, corresponding and vertically opposite angles. b) Draw alternate angles, corresponding angles and vertically opposite angles. c) Enjoy forming angles on a transversal.	Learners to explain the meaning of alternate, corresponding and vertically opposite angles. Learners are guided to draw alternate angles, corresponding angles and vertically opposite angles	How do you form angles on a transversal?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 167 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	

	4	Geometry	Angles in a parallelogram	By the end of the lesson, the learner should be able to: a) Watch a video on how to draw a parallelogram. b) Draw a parallelogram using the measurements given in the video. c) Have fun using digital devices.	Using a digital device, learners to watch a video on how to draw a parallelogram. Learners to draw a parallelogram using the measurements given in the video	What is a parallelogram ?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 169 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	5	Geometry	Angles in a parallelogram	By the end of the lesson, the learner should be able to: a) Define a parallelogram. b) Draw a parallelogram as shown in learner's book 7 c) Measure the angles on a parallelogram. d) Appreciate a parallelogram.	Learners to define a parallelogram. Learners are guided to draw a parallelogram as shown in learner's book 7 pg. 169 Learners to measure the angles on a parallelogram	Do the angles on a parallelogram bisect each other?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 169-171 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
4	1	Geometry	Polygons	By the end of the lesson, the learner should be able to: a) Define a polygon. b) Explain regular and irregular polygons. c) Draw the table in learner's book 7 pg. 171 d) Appreciate different types of polygons.	Learners to define a polygon. Learners to explain regular and irregular polygons. Learners to draw the table in learner's book 7 pg. 171	What is a polygon?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 171 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	2	Geometry	Interior and exterior angles of polygons	By the end of the lesson, the learner should be able to: a) Draw the shapes in learner's book.	In groups, learners are guided to draw the shapes in learner's book 7 page 172 In groups, learners are	What are interior polygons?	Spark; Story moja Mathematics Learner's Book Grade 7 pg.	Oral questions Oral Report Observation Written	

				b) Measure the angles represented by the letters in each of the figures. c) Work out the sum of angles measured for the triangle, the rectangle, pentagon and hexagon. d) Enjoy drawing different types of polygon.	guided to measure the angles represented by the letters in each of the figures. Learners to work out the sum of angles measured for the triangle, the rectangle, pentagon and hexagon.		172 Ruler Digital devices	exercise	
	3	Geometry	Interior and exterior angles of polygons	By the end of the lesson, the learner should be able to: a) Extend the diagrams on pg. 172 to have exterior angles. b) Measure the extended angles for each of the angles. c) Calculate the sum of the exterior angles for each shape. d) Enjoy working out the sum of interior and exterior angles of polygons.	In groups, learners to extend the diagrams on the previous lesson to have exterior angles. Learners to measure the extended angles for each of the angles. Learners are guided to calculate the sum of the exterior angles for each shape.	What are exterior polygons?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 173-177 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	4	Geometry	Relationship between interior angles, exterior angles and number of sides of polygons	By the end of the lesson, the learner should be able to: a) Trace and draw the shapes in learner's book. b) Join the vertex of the shapes to form triangles as shown in learner's book. c) Copy and complete the table in learner's book. d) Have fun and enjoy tracing and drawing	In groups, learners to trace and draw the shapes in learner's book 7 pg. 177 In groups, learners to join the vertex of the shapes to form triangles as shown in learner's book 7 pg. 178 Learners to copy and complete the table in learner's book 7 page 178	What do you notice from the difference between number of sides and number of triangles obtained?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 177-178 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	

				different kinds of shapes.					
	5	Geometry	Relationship between interior angles, exterior angles and number of sides of polygons	By the end of the lesson, the learner should be able to: a) Trace then extend each polygon on one side to have an exterior angle. b) Measure the size of the exterior angle in each polygon. c) Copy and complete the table in learner's book. d) Appreciate the relationship between interior angles, exterior angles and number of sides of polygons.	In groups, learners to trace then extend each polygon on one side to have an exterior angle. In groups, learners to measure the size of the exterior angle in each polygon. Learners to copy and complete the table in learner's book 7 pg. 179	What is the relationship between interior angles, exterior angles and number of sides of polygons?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 179-181 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
5	1	Geometrical Construction	Measuring angles	By the end of the lesson, the learner should be able to: a) Use a protractor to measure the angle on pg. 182 and confirm it is a right angle. b) Draw an obtuse angle, an acute angle and measure their sizes. c) Appreciate the use of a protractor.	Learners are guided to use a protractor to measure the angle on pg. 182 and confirm it is a right angle. Learners to draw an obtuse angle, an acute angle and measure their sizes	What is a protractor used for?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 182-183 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	2	Geometrical Construction	Bisecting Angles	By the end of the lesson, the learner should be able to: a) Define an acute angle. b) Draw an acute $\angle$PQR. Measure the angle. c) Work out activity 2 in learner's book. d) Enjoy doing the activity	Learners to define an acute angle. Individually, learners to draw an acute $\angle$PQR. Measure the angle. Individually, learners are guided to work out activity 2	What is an acute angle?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 183 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	

				in learner's book.	in learner's book 7 pg. 183				
	3	Geometric al Constructi on	Bisecting Angles	By the end of the lesson, the learner should be able to: a) Write the procedure of bisecting a line. b) Draw a straight line AB of any length. c) Bisect the line. d) Follow instructions to the latter.	Learners are guided to write the procedure of bisecting a line. Learners to draw a straight line AB of any length. Learners are guided to bisect the line.	A straight line adds up to ----- ?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 184-185 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	4	Geometric al Constructi on	Construction of angles	By the end of the lesson, the learner should be able to: a) Watch a video on construction of angles. b) Use the links in learner's book. c) Enjoy using digital devices.	In groups, learners to watch a video on construction of angles Learners to use the links in learner's book 7 pg. 186	What have you learnt about construction of angles in the video?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 186 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	5	Geometric al Constructi on	Construction of angles	By the end of the lesson, the learner should be able to: a) Write the procedure of constructing an angle. b) Construct different angles. c) Enjoy constructing angles.	Learners to write the procedure of constructing an angle. Learners are guided to construct different angles	How do you construct angles?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 186-187 Pieces of paper Digital devices	Oral questions Oral Report Observation Written exercise	

6	1	Geometric al Constructi on	Constructing triangles	By the end of the lesson, the learner should be able to: a) Draw line AB = 4.5 cm b) Do activity 4 in learner's book 7 pg. 189. c) Be observant and follow instructions to the latter.	Individually, learners to draw line AB = 4.5 cm Individually, learner to do activity 4 in learner's book 7 pg. 189	How do you construct triangles?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 189-190 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	2	Geometric al Constructi on	Constructing triangles	By the end of the lesson, the learner should be able to: a) Outline the procedure of constructing triangles. b) Construct triangles. c) Have fun and enjoy constructing triangles.	Learners are guided to outline the procedure of constructing triangles. Learners are guided to construct triangles; <QRP=90, <PQR=30 and QR=4.8cm. Measure <PQR	What have you learnt about constructing triangles?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 190-191 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	3	Geometric al Constructi on	Constructing circles	By the end of the lesson, the learner should be able to: a) Watch a video on construction of circles. b) Construct the circles on the video. c) Enjoy using digital devices.	In groups, learners to watch a video on construction of circles. Learners are guided to construct the circles on the video.	How do you construct circles?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 191 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	4	Geometric al Constructi on	Constructing circles	By the end of the lesson, the learner should be able to: a) Outline the procedure of constructing circles. b) Construct circles using different centimetres. c) Enjoy constructing circles.	Learners are guided to outline the procedure of constructing circles. Learners are guided to construct circles using different centimetres.	What do you notice about the perpendicular bisectors?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 191-193 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	5	Data handling	Data collection	By the end of the lesson, the learner should be able to:	Learners to define probability.	What is probability?	Spark; Story moja	Oral questions	

		and probability		a) Define probability. b) Do Activity 1 in learner's book 7. c) Have fun and enjoy doing the activity.	In groups, learners to do Activity 1 in learner's book 7 pg. 194		Mathematics Learner's Book Grade 7 pg. 194 Ruler Digital devices	Oral Report Observation Written exercise	
7	1	Data handling and probability	Frequency distribution table	By the end of the lesson, the learner should be able to: a) Draw a frequency distribution table. b) Use the data previously collected and fill in the frequency distribution table. c) Appreciate frequency distribution table.	Learners to draw a frequency distribution table. In groups, learners to use the data previously collected on the number of learners present in their groups to fill in a frequency distribution table.	What are the uses of frequency distribution table?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 195-197 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	2	Data handling and probability	Choosing a scale	By the end of the lesson, the learner should be able to: a) Study the data provided in the table in learner's book. b) Do activity 3 in learner's book 7 c) Enjoy doing the activity.	Learners to study the data provided in the table in learner's book. In groups, learners to do activity 3 in learner's book 7 pg. 197	How do you choose a scale?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 197-199 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	3	Data handling and probability	Pictographs	By the end of the lesson, the learner should be able to: a) Explain the meaning of pictographs. b) Fill in the table in learner's book. c) Draw and fill a pictograph. d) Appreciate the uses of a pictographs.	Learners to explain the meaning of pictographs. Individually or in pairs, learners to fill in the table in learner's book 7 pg. 200 Individually, learners to draw and fill a pictograph.	What is a pictograph?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 199-202 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	

	4	Data handling and probability	Bar graphs	By the end of the lesson, the learner should be able to: a) Outline the procedure of drawing a bar graph. b) Draw and fill a bar graph. c) Have fun and enjoy drawing and colouring a bar graph.	Learners are guided to outline the procedure of drawing a bar graph. Learners to draw, fill and colour a bar graph.	What does a bar graph represents?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 203-205 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	5	Data handling and probability	Pie charts	By the end of the lesson, the learner should be able to: a) Define a pie chart. b) Do activity 6 in learner's book. c) Have fun and enjoy doing the activity.	Learners are guided to define a pie chart. In groups, learners to do activity 6 in learner's book 7 page 206	What is a pie chart?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 206 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
8	1	Data handling and probability	Pie charts	By the end of the lesson, the learner should be able to: a) Outline the procedure of drawing a pie chart. b) Draw a pie chart to represent different informations. c) Appreciate the use of pie charts.	In groups, learners to outline the procedure of drawing a pie chart. Learners are guided to draw a pie chart to represent different informations	What do you use to draw a pie chart?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 206-209 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	

	2	Data handling and probability	Line graph	By the end of the lesson, the learner should be able to: a) Explain the meaning of a line graph. b) Do Activity in learner's book 7 c) Have fun and enjoy doing the Activity.	Learners are guided to explain the meaning of a line graph. Individually, learners to do Activity in learner's book 7 pg. 209	What is a line graph?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 209 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	3	Data handling and probability	Line graph	By the end of the lesson, the learner should be able to: a) Outline the procedure of drawing a line graph. b) Draw a line graph to represent different data. c) Appreciate the use of line graphs.	Learners are guided to outline the procedure of drawing a line graph. Learners are guided to draw a line graph to represent different data.	What have you learnt about a line graph?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 210-213 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	4	Data handling and probability	Travel graphs	By the end of the lesson, the learner should be able to: a) Define a travel graph. b) Do Activity 8 in learner's book 7. c) Have fun and enjoy doing the activity in groups.	Learners to define a travel graph. In groups, learners to do Activity 8 in learner's book 7 pg. 214.	What is a travel graph?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 214 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	
	5	Data handling and probability	Travel graphs	By the end of the lesson, the learner should be able to: a) Outline the procedure of drawing a travel graph. b) State the formula of calculating speed. c) Draw a travel graph to represent different data. d) Appreciate the use of travel graphs.	Learners are guided to outline the procedure of drawing a travel graph. Learners are guided to state the formula of calculating speed. Learners are guided to draw a travel graph to represent different data.	What is the formula of calculating speed?	Spark; Story moja Mathematics Learner's Book Grade 7 pg. 214-217 Ruler Digital devices	Oral questions Oral Report Observation Written exercise	

9	ASSESSMENT									