# Grade Four
## Mathematics Activities Schemes Of Work
**Term ____Two____ Year _____ School _____**

| Wk | Lsn | Strand/ Theme | Sub strand | Specific learning outcomes | Key inquiry Questions | Learning experiences | Learning Resources | Assessment methods | Refl |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | | | By the end of the sub strand, the learner should be able to:<br>e) use IT devices for learning and leisure,<br>f) appreciate use of decimals in real life situations. | How can you use decimals in real life situations? | • Learners in pairs/groups /individually to order given decimals in ascending and descending order.<br>• Learners in pairs/groups/ individually to play digital games involving decimals. | Number cards | | |
| | 2 | | | | | | | | |
| | 3 | | | | | | | | |
| | 4 | MEASUREMENT | Length | By the end of the sub strand, the learner should be able to:<br>a) identify the centimetre as a unit of measuring length in real life situations,<br>b) measure length in centimetres in real life situations,<br>c) estimate and measure length in centimetres in real life situations,<br>d) establish the relationship between metres and centimetres practically,<br>e) convert metres to centimetres and centimetres to metres in real life situation,<br>f) work out perimeter of plane figures in different contexts,<br>g) work out addition involving length in metres and centimetres in real life situations,<br>h) work out subtraction involving length in metres and centimetres in real life situations, | 1. How can you measure distance?<br>2. Why do we measure distance in real life? | • Learners in pairs/groups to identify the centimetre and mark out lengths of 1centimetre using a ruler.<br>• Learners in pairs/groups to measure the length of a given object in centimetres using a metre ruler or a tape measure.<br>• Learners in pairs/groups / individually to estimate the length of a given object in centimetres.<br>• Learners to measure actual length of the estimated length in centimetres.<br>• Learners in pairs/groups to measure length in metres and centimetres and establish the relationship between the units.<br>• Learners in pairs/groups use the relationship between centimetres and metres in real life situations.<br>• Learners in pairs/groups/individually to convert metres into centimetres and centimetres into metres in real life situations.<br>• Learners in pairs/groups to work out perimeter of plane figures in different contexts. | Metre rule, 1 metre sticks, tape measure | Oral Written Observation | |
| | 5 | | | | | | | | |
| 2 | 1 | | | | 1. How can you measure distance?<br>2. Why do we measure distance in real life? | | | Oral Written Observation | |
| | 2 | | | | | | | | |
| | 3 | | | | | | | | |
| | 4 | | | | | | | | |
| | 5 | | | | | | | | |
| 3 | 1 | | | | | | | | |
| | 2 | | | | | | | | |
| | 3 | | | | | | | | |
| | 4 | | Area | By the end of the sub strand, the learner should be able to:<br>a) compare area of given surfaces by direct comparison,<br>b) calculate area of squares and rectangles by counting unit squares, | How can you work out area of different surfaces? | | | Oral Written | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 5 | | | c) calculate area of squares and rectangles as a product of number of rows and columns, | | | | Observation | |
| 4 | 1 | MEASUREMENT | | c) calculate area of squares and rectangles as a product of number of rows and columns, | | • Learners in pairs/groups to compare area of two surfaces directly by placing one surface on the other.<br>• Learners in pairs/groups to use different unit square cut outs to cover a given surface.<br>• Learners in pairs/groups to count the number of unit square cut outs used to cover the surface.<br>• Learners in pairs /groups to establish that area of a rectangle or a square is same as number of rows multiplied by number of columns.<br>• Learners in pairs/groups to work out area of squares and rectangles by multiplying number of rows by number of columns.<br>• Learners in pairs/groups play digital games involving area of rectangles and squares. | Square cut outs, paper cut outs | | |
| | 2 | | | | | | | | |
| | 3 | | | | | | | | |
| | 4 | | | | | | | | |
| | 5 | | | | | | | | |
| 5 | 1 | | | d) use IT devices for learning and enjoyment,<br>e) appreciate use of rows and columns in calculating area of squares and rectangles in real life situations. | | | | | |
| | 2 | | Mass | By the end of the sub strand, the learner should be able to:<br>Use a kilogram mass to measure masses of different objects practically | How can you measure mass in kg? | • Learners in pairs/groups make a ½ kg mass and use it to measure mass of given objects using a beam balance.<br>• Learners in pairs/groups make a ¼ kg mass and use it to measure mass of given objects using a beam balance and an electronic balance.<br>• Learners in pairs/groups add mass involving kilograms (kg) in real life situations.<br>• Learners in pairs/groups subtract mass involving kilograms (kg) in real life situations.<br>• Learners in pairs/groups play digital games involving mass. | 1 kg mass soil, soil or sand, weighing machine, beam balance | Oral<br>Written<br>Observation | |
| | 3 | | | | | | | | |
| | 4 | | | By the end of the sub strand, the learner should be able to:<br>b) use ½ kg and ¼ kg masses to measure masses of different objects practically.<br>c) add mass involving kilograms in real life situations, | | | | | |
| | 5 | | | | | | | | |
| 6 | 1 | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2 | | | By the end of the sub strand, the learner should be able to:<br>d) subtract mass involving kilograms in real life situations,<br>e) use IT devices for learning and enjoyment,<br>f) appreciate measuring mass of different objects. | | | | | |
| | 3 | MEASUREMENT | Volume | By the end of the sub strand, the learner should be able to:<br>a) work out volume of cubes and cuboids in real life situations, | How can you work out volume of cubes and cuboids? | • Learners in pairs/groups/individually to pile cubes.<br>• Learners in pairs/groups/individually to count the piles of cubes to determine the volume. | Cubes cuboids | Oral Written Observation | |
| | 4 | | | By the end of the sub strand, the learner should be able to:<br>a) work out volume of cubes and cuboids in real life situations, | | | | | |
| | 5 | | | By the end of the sub strand, the learner should be able to:<br>a) work out volume of cubes and cuboids in real life situations, | | | | | |
| 7 | 1 | | | By the end of the sub strand, the learner should be able to:<br>Use IT devices for learning and enjoyment | | • Learners in pairs/groups/individually to pile cubes.<br>• Learners in pairs/groups/individually to count the piles of cubes to determine the volume. | | | |
| | 2 | | | By the end of the sub strand, the learner should be able to:<br>Appreciate the use of pilling method in working out volume in real life | | | | | |
| | 3 | | | By the end of the sub strand, the learner should be able to:<br>Appreciate the use of pilling method in working out volume in real life | | • Learners in pairs/groups to pile cuboids.<br>• Learners in pairs/groups/individually to count the piles of cuboids to determine the volume.<br>• Learners in pairs/groups /individuals to use IT devices to play games. | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 4 | | | By the end of the sub strand, the learner should be able to:<br>a) measure capacity in litres in real life situations,<br>b) measure capacity in ½ litres and ¼ litres in real life situations, | | • Learners in pairs/groups to measure capacity of containers using a 1 litre container in real life situations.<br>• Learners in pairs/groups/individually to make ½ litre and ¼ litre containers through filling and emptying using a 1 litre container.<br>• Learners in pairs/groups to use ½ litre and ¼ litre containers to measure capacity of other containers. | 1 Litres containers, water, sand, and soil | Oral<br>Written<br>Observation | |
| | 5 | | | | | | | | |
| 8 | 1 | MEASUREMENT | Capacity | c) Add and subtract capacity involving litres in real life situations,<br>d) use IT devices for learning and enjoyment, | How can you measure capacity in real life situations? | | | | |
| | 2 | | | | | • Learners in pairs/groups to add capacity involving litres in real life situations.<br>• Learners in pairs/groups to subtract capacity involving litres in real life situations.<br>• Learner in pairs/groups to play digital games involving capacity. | | | |
| | 3 | | | e) appreciate use of the litre as a unit of measuring capacity in real life situations. | | | | | |
| | 4 | | | | | | | | |
| | 5 | | Time | By the end of the sub strand, the learner should be able to:<br>a) read and tell time in a.m. and p.m. in real life situations, | 1. How can you tell time?<br>2. How can you find out time taken to do an activity? | • Learners in pairs/groups to read and tell time in a.m. and p.m. using digital and analogue clocks in real life situations.<br>• Learners in pairs/groups to estimate time of the day using the shadow. | Analogue and digital clocks, digital watches, am/pm chart | Oral<br>Written<br>Observation<br><br>Oral<br>Written<br>Observation | |
| 9 | 1 | | | b) estimate time using a.m and p.m. in real life situations, | | | | | |
| | 2 | | | c) convert units of time in real life situations,<br>d) record time durations in hours and minutes in real life | | | | | |
| | 3 | | | | | • Learners in pairs/groups to convert hours to minutes and minutes to hours in real life situations.<br>• Learners in pairs/groups to convert hours to days and days to hours in real life situations. | | | |
| | 4 | | | | | | | | |
| | 5 | | | e) work out time duration in real life situations, | 1. How can you tell time?<br>2. How can you find out time taken to do an activity? | • Learners in pairs/groups to convert days to weeks and weeks to days in real life situations.<br>• Learners in pairs/groups to measure and record duration of events in hours and minutes using digital and analogue clocks. | | | |
| 10 | 1 | | | | | | | | |
| | 2 | | | f) use IT devices for learning and enjoyment,<br>g) appreciate time in real life situations. | | | | | |
| | 3 | | | | | • Learners in pairs/groups to work out subtraction involving units of time in real life situations.<br>• Learners in pairs/groups/individually to play digital games involving time. | | | |
| | 4 | | | | | | | | |
| | 5 | | Money | By the end of the sub strand, the learner should be able to:<br>a) convert shillings into cents and cents into shillings in different contexts, | How can you save money? | | Real/imitation money, price list | Oral<br>Written<br>Observation | |
| 11 | 1 | | | b) participate in shopping activities involving money practically, | | | | | |
| | 2 | | | c) determine needs and wants in real life situations,<br>d) practice savings in real life, | | | | | |
| | 3 | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 4 | | | e) work out questions involving money in real life situations,<br>f) identify money people pay to the county government for provision of services, | | • Learners in pairs/group to role play shopping activities involving giving change and balance using real/ imitation money.<br>• Learners in pairs/groups to discuss and prioritize needs and wants.<br>• Learners in pairs/groups to discuss meaning of saving.<br>• Learners in pairs/groups to discuss savings at home.<br>• Learners in pairs/groups to discuss how to work out questions involving money in real life situations.<br>• Learners in pairs/groups to discuss market fee, cess, parking fee and business permit as money people pay to county government for provision of services.<br>• Learners in pairs/groups/ individually to play digital games involving money. | | | |
| | 5 | | | | | | | | |
| 12 | 1 | | | | | | | | |
| | 2 | | | g) use IT devices for learning and enjoyment,<br>h) appreciate the use of money in real life. | | | | | |
| | 3 | GEOMETRY | Position and Direction | By the end of the sub strand, the learner should be able to:<br>a) demonstrate a clockwise and an anti-clockwise turn in the environment, | How can you change your position? | • Learners in groups/pairs/individually to demonstrate a half turn.<br>• Learners in groups/pairs/individually to demonstrate a full turn.<br>• Learners in groups/pairs/individually to play digital games involving position and direction. | Clock face | Oral<br>Written<br>Observation | |
| | 4 | | | b) Demonstrate a quarter turn, half turn and full turn in the environment. | | | | | |
| | 5 | | | c) identify quarter, half and full turns in the environment, | | | | | |
| 13 | 1 | | | d) use IT devices for learning and enjoyment,<br>e) appreciate use of position and direction in real life situations. | | | | | |
| | 2 | | Angles | By the end of the sub strand, the learner should be able to:<br>• identify angles in the environment,<br>• identify different types of angles in the environment, | Where can you find angles in the environment? | • Learners in pairs/groups /individually to identify angles in the environment.<br>• Learners in pairs/groups to identify right angles in the environment.<br>• Learners in pairs/groups to identify acute angles in the environment.<br>• Learners in pairs/groups to identify obtuse angles in the environment.<br>• Learners in pairs/groups to identify reflex angles in the environment.<br>• Learners in pairs/groups to compare angles using a right angle.<br>• Learners in pairs/groups/individually to play digital games and learn more about angles. | Representation of different angles | Oral<br>Written<br>Observation | |
| | 3 | | | | | | | | |
| | 4 | | | • compare angles practically, | | | | | |
| | 5 | | | • use IT devices for learning and enjoyment,<br>• appreciate use of angles in real life situations. | | | | | |
| 14 | | END TERM ASSESMENT/CLOSING | | | | | | | |