**GRADE 4 KLB VISIONARY MATHEMATICS ACTIVITIES**

**SCHEMES OF WORK TERM 2**

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| **School** | **Grade** | **Learning Area** | **Term** | **Year** |
|  | **4** | **Mathematics** | **2** |  |

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| **Week** | **Lesson** | **Strand** | **Sub Strand** | **Specific Learning Outcomes** | **Key Inquiry Questions** | **Learning Experiences** | **Learning Resources** | **Assessment** | **Remarks** |
| **1** | **1** | **Measure ment** | **Length** | By the end of the sub strand, the learner should be able to:work out division involving metres and centimetres in real life situations | Why do we measure distance in real life | Learners in pairs/groups to work out multiplication involving metres and centimetres in real life situations.Learners in pairs/groups to work out division involving metres and centimetres in real life situations.Learners in pairs/groups to play digital gamesinvolving length | KLBVisionary Mathematics pg 78Metre rule, 1metre sticks, tape measure | Asking question Drawing questionnaires |  |
|  | **2** | **Measure ment** | **Length** | By the end of the sub strand, the learner should be able to:work out division involving metres andcentimetres in real life | Why do we measure distance in real life | Learners in pairs/groups to work out multiplication involving metres and centimetres in real life situations. | KLBVisionary Mathematics pg 78Metre rule, | Asking question Drawing questionnaires |  |

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|  |  |  |  | situations |  | Learners in pairs/groups to work out division involving metres and centimetres in real life situations.Learners in pairs/groups to play digital gamesinvolving length | 1metre sticks, tape measure |  |  |
|  | **3** | **Measure ment** | **Length** | By the end of the sub strand, the learner should be able to:use IT devices for learning and enjoyment, appreciate use ofmetres and centimetresin measuring distance in real life. | Why do we measure distance in real life | Learners in pairs/groups to work out division involving metres and centimetres in real life situations.Learners in pairs/groups to play digital games involving length | KLBVisionary Mathematics pg 78Metre rule, 1metre sticks, tape measure | Asking question Drawing questionnaires |  |
|  | **4** | **Measure ment** | **Length** | By the end of the sub strand, the learner should be able to:use IT devices for learning and enjoyment, | Why do we measure distance in real life | Learners in pairs/groups to work out division involving metres and centimetres in real life situations.Learners in pairs/groups to play digital gamesinvolving length | KLBVisionary Mathematics pg 78Metre rule, 1metre sticks, tape measure | Asking question Drawing questionnaires |  |
|  | **5** | **Measure ment** | **Length** | By the end of the sub strand, the learner should be able to appreciate use of | Why do we measure distance in real life | Learners in pairs/groups to work out division involving metres and centimetres in real life | KLBVisionary Mathematics pg 80-82 | Asking question Drawing questionnaires |  |

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|  |  |  |  | metres and centimetres in measuring distance in real life. |  | Situations.Learners in pairs/groups to playdigital games involving length | Metre rule, 1metre sticks, tape measure |  |  |
| **2** | **1** | **Measure ment** | **Area** | By the end of the sub strand, the learner should be able to:compare area of given surfaces by direct comparison | How can you work out area of different surfaces? | Learners in pairs/groups to compare area of two surfaces directly by placing one surface on the other | KLBVisionary Mathematics pg 91Square cut outs, papercut outs | Asking question Drawing questionnaires |  |
|  | **2** | **Measure ment** | **Area** | By the end of the sub strand, the learner should be able to:compare area of given surfaces by direct comparison | How can you work out area of different surfaces? | Learners in pairs/groups to compare area of two surfaces directly by placing one surface on the other | KLBVisionary Mathematics pg 91Square cutouts, paper cut outs | Asking question Drawing questionnaires |  |
|  | **3** | **Measure ment** | **Area** | By the end of the sub strand, the learner should be able to:calculate area of squares and rectangles by counting unit squares | How can you work out area of different surfaces? | Learners in pairs/groups to use different unit square cut outs to cover a given surface | KLBVisionary Mathematics pg 93-96Square cut outs, paper cut outs | Asking question Drawing questionnaires |  |
|  | **4** | **Measure ment** | **Area** | By the end of the sub strand, the learner should be able to: calculate area of | How can you work out area of different | Learners in pairs/groups to count the number of unit square cut outsused to cover the | KLBVisionary Mathematics | Asking question Drawing questionnaires |  |

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|  |  |  |  | squares and rectangles as a product of number of rows and columns | surfaces? | Surface.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. | Pg 97-99Square cut outs, paper cut outs |  |  |
|  | **5** | **Measure ment** | **Area** | By the end of the sub strand, the learner should be able to:calculate area of squares and rectangles as a product of number of rows and columns | How can you work out area of different surfaces? | Learners in pairs/groups to count the number of unit square cut outs used to cover the surface.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. | KLBVisionary Mathematics pg 99-101Square cut outs, paper cut outs | Asking question Drawing questionnaires |  |
| **3** | **1** | **Measure ment** | **Area** | By the end of the sub strand, the learner should be able to:calculate area of squares and rectangles as a product of number of rows and columns | How can you work out area of different surfaces? | Learners in pairs/groups to work out area of squares and rectangles by multiplying number of rows by number of columns. | KLBVisionary Mathematics pg 99-101Square cutouts, paper cut outs | Asking question Drawing questionnaires |  |

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|  | **2** | **Measure ment** | **Area** | By the end of the sub strand, the learner should be able to: use IT devicesfor learning andenjoyment,appreciate use of rows and columns in calculating area ofsquares and rectangles in real life situations. | How can you work out area of different surfaces? | Learners in pairs/groups play digital games involving area of rectangles and squares | KLBVisionary Mathematics pg 99-101Square cut outs, paper cut outs | Asking question Drawing questionnaires |  |
|  | **3** | **Measure ment** | **Mass** | By the end of the sub strand, the learner should be able to:use a kilogram mass to measure masses of different objects practically, | How can you measure mass in kg? | Learners in pairs/groups to use one kilogram masses to measure masses of given objects using a beam balance | KLBVisionary Mathematics pg 102-1031kg mass, soil or sand, manual/electr onic weighing machine, beam balance | Asking question Drawing questionnaires |  |
|  | **4** | **Measure ment** | **Mass** | By the end of the sub strand, the learner should be able to:use a kilogram mass to measure masses of different objects practically, | How can you measure mass in kg? | Learners in pairs/groups to use one kilogram masses to measure masses of given objects using a beam balance | KLBVisionary Mathematics pg 102-1031kg mass, soil or sand, manual/electronic | Asking question Drawing questionnaires |  |

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|  |  |  |  |  |  |  | weighing machine, beam balance |  |  |
|  | **5** | **Measure ment** | **Mass** | By the end of the sub strand, the learner should be able to:use ½ kg and ¼ kg masses 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 | KLBVisionary Mathematics pg 103-1041kg mass, soil or sand, manual/electr onic weighing machine, beam balance | Asking question Drawing questionnaires |  |
| **4** | **1** | **Measure ment** | **Mass** | By the end of the sub strand, the learner should be able to:use ½ kg and ¼ kg masses 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 | KLBVisionary Mathematics pg 103-1041kg mass, soil or sand, manual/electr onic weighing machine, beam balance | Asking question Drawing questionnaires |  |
|  | **2** | **Measure ment** | **Mass** | By the end of the sub strand, the learnershould be able to add mass involving | How can you measure | Learners in pairs/groups make a ¼kg mass and use it to measure mass of given | KLBVisionary Mathematics | Asking question Drawing questionnaires |  |

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|  |  |  |  | kilograms in real life situations | mass in kg? | objects using a beam balance and an electronic balance | pg 105-1061kg mass, soil or sand, manual/electr onic weighing machine,beam balance |  |  |
|  | **3** | **Measure ment** | **Mass** | By the end of the sub strand, the learner should be able to:subtract mass involving kilograms in real life situations, | How can you measure mass in kg? | Learners in pairs/groups add mass involving kilograms (kg) in real life situationsLearners in pairs/groups subtract mass involving kilograms (kg) in real life situations | KLBVisionary Mathematics pg 105-1061kg mass, soil or sand, manual/electr onic weighing machine, beam balance | Asking question Drawing questionnaires |  |
|  | **4** | **Measure ment** | **Mass** | By the end of the sub strand, the learner should be able to:subtract mass involving kilograms in real life situations, | How can you measure mass in kg? | Learners in pairs/groups add mass involving kilograms (kg) in real life situationsLearners in pairs/groups subtract mass involving kilograms (kg) in real life situations | KLBVisionary Mathematics pg 105-1061kg mass, soil or sand, manual/electr onic weighingmachine, |  |  |

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|  |  |  |  |  |  |  | beam balance |  |  |
|  | **5** | **Measure ment** | **Mass** | By the end of the sub strand, the learner should be able to: use IT devicesfor learning andenjoyment, appreciate measuring mass of different objects | How can you measure mass in kg? | Learners in pairs/groups play digital games involving mass | KLBVisionary Mathematics pg 105-1061kg mass, soil or sand, manual/electr onic weighing machine, beam balance |  |  |

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| **5** | **1** |  | **Volume** | By the end of the sub strand, the learner should be able to: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/indivi dually to pile cubes.Learners in pairs/groups/ndividual lly to count the pilesof cubes to determine the volume. | KLBVisionary Mathematics pg 107-110Cubes, cuboids |  |  |
|  | **2** |  | **Volume** | By the end of the sub strand, the learner should be able to:work out volume of cubes and cuboids in real | How can you work out volume of cubes andcuboids? | Learners in pairs/groups to pile cuboids.Learners in pairs/groups/individua | KLBVisionary Mathematics pg 107-110 |  |  |

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|  |  |  |  | life situations |  | lly to count the piles of cuboids to determine the volume | Cubes, cuboids |  |  |
|  | **3** |  | **Volume** | By the end of the sub strand, the learner should be able to use IT devices for learning and enjoyment,appreciate use of pilling method in working out volume in real life | How can you work out volume of cubes and cuboids? | Learners in pairs/groups/individuals to use IT devices to play games. | KLBVisionary Mathematics pg 107-111Cubes, cuboids |  |  |
|  | **4** |  | **Capacity** | By the end of the sub strand, the learner should be able to:measure capacity in litres in real life situations | How can you measure capacity in real life situations? | Learners inpairs/groups to measure capacity of containers using a 1 litre container in real life situations. | KLBVisionary Mathematics pg 113-1141 liter containers, containers of different sizes, water,sand ,soil |  |  |
|  | **5** |  | **Capacity** | By the end of the sub strand, the learner should be able to:measure capacity in litres in real life situations | How can you measure capacity in real life situations? | Learners inpairs/groups to measure capacity of containers using a 1 litre container in real life situations. | KLBVisionary Mathematics pg 113-1141 liter containers, containers of differentsizes, water, sand ,soil |  |  |

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| **6** | **1** |  | **Capacity** | By the end of the sub strand, the learner should be able to measure capacity in½ litres and ¼ litres in real life situations, | How can you measure capacity in real life situations? | Learners in pairs/groups/ndividual lly to make ½ litre and¼ litre containers through filling and emptying using a 1 litre container | KLBVisionary Mathematics pg 115-1161 liter containers, containers of different sizes, water, sand ,soil |  |  |
|  | **2** |  | **Capacity** | By the end of the sub strand, the learner should be able to measure capacity in½ litres and ¼ litres in real life situations, | How can you measure capacity in real life situations? | Learners in pairs/groups/ndividual lly to make ½ litre and¼ litre containers through filling and emptying using a 1 litre container | KLBVisionary Mathematics pg 115-1161 liter containers, containers of different sizes, water, sand ,soil |  |  |
|  | **3** |  | **Capacity** | By the end of the sub strand, the learner should be able to Add and subtract capacity involving litres in real life situations, | How can you measure capacity in real life situations? | Learners in pairs/groups to use ½ litre and ¼ litre containers to measure capacity of other containers.Learners in pairs/groups to add capacity involvinglitres in real life | KLBVisionary Mathematics pg 115-1161 liter containers, containers of different |  |  |

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|  |  |  |  |  |  | situations | sizes, water, sand ,soil |  |  |
|  | **4** |  | **Capacity** | By the end of the sub strand, the learner should be able to Add and subtract capacity involving litres in real life situations, | How can you measure capacity in real life situations? | .Learners in pairs/groups to add capacity involving litres in real life situations | KLBVisionary Mathematics pg 117-1181 liter containers, containers of different sizes, water, sand ,soil |  |  |
|  | **5** |  | **Capacity** | By the end of the sub strand, the learner should be able to use IT device for learning and enjoyment,appreciate use of the litre as a unit of measuring capacity in real life situations | How can you measure capacity in real life situations? | Learners inpairs/groups to subtract capacity involving litres in real life situations. Learner in pairs/groups to play digital games involving capacity. | KLBVisionary Mathematics pg 117-1181 liter containers, containers of differentsizes, water, sand ,soil |  |  |
| **7** | **1** |  | **Time** | By the end of the sub strand, the learner should be able to:read and tell time in a.m. and p.m. in real life situations | How can you tell time? | Learners in pairs/groups to read and tell time in a.m. and p.m. using digital and analogue clocks in real life situations. | KLBVisionary Mathematics pg 119-121Analogue and digitalclocks, |  |  |

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|  |  |  |  |  |  |  | digital watches, am/pm chart |  |  |
|  | **2** |  | **Time** | By the end of the sub strand, the learner should be able to estimate time using a.m and p.m. in real life situations, | How can you tell time? | Learners in pairs/groups to estimate time of the day using the shadow. | KLBVisionary Mathematics pg 119-121Analogue and digital clocks, digital watches, am/pm chart |  |  |
|  | **3** |  | **Time** | By the end of the sub strand, the learner should be able to estimate time using a.m and p.m. in real life situations, | How can you tell time? | Learners in pairs/groups to estimate time of the day using the shadow. | KLBVisionary Mathematics pg 119-121Analogue and digital clocks, digital watches, am/pm chart |  |  |
|  | **4** |  | **Time** | By the end of the sub strand, the learner should be able to convert units of time in real life situations | How can you find out time taken to do an activity? | Learners in pairs/groups to convert hours to minutes and minutes to hours inreal life situations. | KLBVisionary Mathematics pg 122-123Analogue and |  |  |

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|  |  |  |  |  |  | Learners in pairs/groups to convert hours to days and days to hours in real lifesituations | digital clocks, digital watches, am/pm chart |  |  |
|  | **5** |  | **Time** | By the end of the sub strand, the learner should be able to convert units of time in real life situations | How can you find out time taken to do an activity? | Learners in pairs/groups to convert hours to minutes and minutes to hours in real life situations.Learners in pairs/groups to convert hours to days and days to hours in real lifesituations | KLBVisionary Mathematics pg 122-123Analogue and digital clocks, digital watches, am/pm chart |  |  |
| 8 |  |  |  | Half term  |  |  |  |  |  |
| **9** | **1** |  | **Time** | By the end of the sub strand, the learner should be able to record time durations in hours and minutes in real life situations, | How can you find out time taken to do an activity? | Learners in pairs/groups to convert hours to minutes and minutes to hours in real life situations.Learners in pairs/groups to convert hours to days and days to hours in real lifesituations | KLBVisionary Mathematics pg 122-123Analogue and digital clocks, digital watches, am/pm chart |  |  |
|  | **2** |  | **Time** | By the end of the sub strand, the learner should be able to record time durations in hours and minutes in real life situations, | How can you find out time taken to do an activity? | Learners in pairs/groups to convert hours to minutes and minutes to hours in real life situations.Learners in pairs/groups to convert | KLBVisionary Mathematics pg 122-123Analogue and digitalclocks, |  |  |

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|  |  |  |  |  |  | hours to days and days to hours in real life situations | digital watches, am/pm chart |  |  |
|  | **3** |  | **Time** | By the end of the sub strand, the learner should be able to work out time duration in real life situations | How can you find out time taken to do an activity? | Learners in pairs/groups to measure and record duration of events in hours and minutes using digital and analogue clocks.Learners in pairs/groups to work out addition involving units of time in reallife situations | KLBVisionary Mathematics pg 122-123Analogue and digital clocks, digital watches, am/pm chart |  |  |
|  | **4** |  | **Time** | By the end of the sub strand, the learner should be able to work out time duration in real life situations | How can you find out time taken to do an activity? | Learners in pairs/groups to measure and record duration of events in hours and minutes using digital and analogue clocks.Learners in pairs/groups to work out addition involving units of time in reallife situations | KLBVisionary Mathematics pg 122-125Analogue and digital clocks, digital watches, am/pm chart |  |  |
|  | **5** |  | **Time** | By the end of the sub strand, the learner should be able to use IT devices for learning and enjoyment, appreciate time in real | How can you find out time taken to do an activity? | Learners in pairs/groups to work out subtraction involving units of time in real life situations. | KLBVisionary Mathematics pg 122-125Analogue and |  |  |

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|  |  |  |  | life situations. |  | Learners in pairs/groups/individua lly to play digital games involving time. | digital clocks, digital watches, am/pm chart |  |  |
| **10** | **1** |  | **Money** | By the end of the sub strand, the learner should be able to:convert shillings into cents and centsinto shillings in different contexts, | How can you save money? | Learners in pairs/groups/individua lly to convert shillings into cents and cents into shillings using real/ imitation money in different contexts | KLBVisionary Mathematics pg 130-131Real / imitation money, price list |  |  |
|  | **2** |  | **Money** | By the end of the sub strand, the learner should be able to:convert shillings into cents and centsinto shillings in different contexts, | How can you save money? | Learners in pairs/group to role play shopping activities involving giving change and balance using real/ imitation money | KLBVisionary Mathematics pg 130-131Real / imitation money, pricelist |  |  |
|  | **3** |  | **Money** | By the end of the sub strand, the learner should be able to participate in shopping activities involving money practically | How can you save money? | Learners in pairs/groups to discuss and prioritize needs and wants | KLBVisionary Mathematics pg 130-131Real / imitationmoney, price list |  |  |

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|  | **4** |  | **Money** | By the end of the sub strand, the learner should be able to practice savings in real life, work out questions involving money in real life situations | How can you save money? | Learners in pairs/groups to discuss meaning of saving.Learners in pairs/groups to discuss savings at home | KLBVisionary Mathematics pg 132-134Real / imitationmoney, price list |  |  |
|  | **5** |  | **Money** | By the end of the sub strand, the learner should be able to practice savings in real life, work out questions involving money in real life situations | How can you save money? | Learners in pairs/groups to discuss meaning of saving.Learners in pairs/groups to discuss savings at home | KLBVisionary Mathematics pg 132-134Real / imitation money, pricelist |  |  |
| **12-13** | **REVISION AND END OF TERM ASSESSMENT AND CLOSING** |