**KLB Visionary MATHEMATICS ACT. GRADE FOUR**

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| **School** | **Teacher’s Name** | **Term** | **Year** |
|  |  | *Three* |  |

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| **Wk** | **Lsn** | **Strand/Theme** | **Sub strand** | **Specific learning outcomes** | **Key inquiry Questions** | **Learning experiences** | **Learning Resources** | **Assessment methods** | **Refl** |
| **1** | **OPENING/PREPARATIONS** | | | | | | | | |
| **2** | **1** |  | **Comparing angles using a right angle** | By the end of the lesson the learner should be able to   1. Compare angles practically 2. use IT devices to compare angles 3. appreciate use of angles and direction in real life situations. | How do you compare angles? | • Learners in pairs/groups to identify obtuse angles in the environment.  • Learners in pairs/groups to identify reflex angles in the environment.  • Learners in pairs/groups to compare angles using a right angle.  • Learners in pairs/groups/individually to play  digital games and learn more about angles | Objects in the environment, paper cut-outs  Klb visionary mathematics Grd. 4 learners bk pg. 146-147 | Oral questions  Written exercise  Observation |  |
| **3** | **2** |  | **Shapes in our environment** | By the end of the lesson the learner should be able to   1. Identify different shapes in the environment 2. use IT devices to identify shapes in our environment 3. appreciate use of shapes and direction in real life situations. | How can you identify 2-D shape? | • Learners in pairs/groups/individually to identify shapes in the environment.  • Learners in pairs/groups to identify line of symmetry by folding the shape into two equal  parts and identify the fold line as line of symmetry. | Cut-outs of rectangles, squares, triangles and circles of different sizes  Klb visionary mathematics Grd. 4 learners bk pg. 148 | Oral questions  Written exercise  Observation |  |
| **3** |  | **Lines of symmetry for rectangles, squares, triangles and circles** | By the end of the lesson the learner should be able to identify lines of symmetry for   1. Rectangles and squares 2. use IT devices to identify lines of symmetry 3. appreciate use of shapes and direction in real life situations. | How can you identify line of symmetry? | • Learners in pairs/groups/individually to identify shapes in the environment.  • Learners in pairs/groups to identify line of symmetry by folding the shape into two equal  parts and identify the fold line as line of symmetry. | Cut-outs of rectangles, squares, triangles and circles of different sizes  Klb visionary mathematics Grd. 4 learners bk pg. 149-150 | Oral questions  Written exercise  Observation |  |
| **4** |  | **Lines of symmetry for rectangles, squares, triangles and circles** | By the end of the lesson the learner should be able to identify lines of symmetry for   1. Triangles 2. use IT devices to identify lines of symmetry 3. appreciate use of shapes and direction in real life situations. | How can you identify line of symmetry? | • Learners in pairs/groups/individually to identify shapes in the environment.  • Learners in pairs/groups to identify line of symmetry by folding the shape into two equal  parts and identify the fold line as line of symmetry. | Cut-outs of rectangles, squares, triangles and circles of different sizes  Klb visionary mathematics Grd. 4 learners bk pg. 149-150 | Oral questions  Written exercise  Observation |  |
| **5** |  | **Properties of shapes** | By the end of the lesson the learner should be able to   1. identify the properties 2. use IT devices to identify properties of shapes 3. appreciate use of shapes and direction in real life situations. | What are the properties of squares, rectangles and triangles? | • Learners in pairs/groups/individually to make patterns using squares, rectangles and triangles.  • Learners in pairs/groups to identify properties of a square practically.  • Learners in pairs/groups to identify properties of a  rectangle practically.  • Learners in pairs/groups to identify properties of a  triangle practically.  • Learners in pairs/groups to use IT devices to learn  more about 2-D shapes and make patterns. | Cut-outs of rectangles, squares, triangles and circles of different sizes  Klb visionary mathematics Grd. 4 learners bk pg. 149-150 | Oral questions  Written exercise  Observation |  |
| **1** |  | **Properties of shapes** | By the end of the lesson the learner should be able to   1. identify properties of triangles 2. use IT devices to identify properties of shapes 3. appreciate use of shapes and direction in real life situations. | What are the properties of squares, rectangles and triangles? | • Learners in pairs/groups/individually to make patterns using squares, rectangles and triangles.  • Learners in pairs/groups to identify properties of a square practically.  • Learners in pairs/groups to identify properties of a  rectangle practically.  • Learners in pairs/groups to identify properties of a  triangle practically.  • Learners in pairs/groups to use IT devices to learn  more about 2-D shapes and make patterns. | Cut-outs of rectangles, squares, triangles and circles of different sizes  Klb visionary mathematics Grd. 4 learners bk pg. 149-150 | Oral questions  Written exercise  Observation |  |
|  | **2** |  | **Making pattern using shapes** | By the end of the lesson the learner should be able to   1. make patterns using different shapes 2. use IT devices to make patterns using shapes 3. appreciate use of shapes and direction in real life situations. | How can you make patterns using shapes? | • Learners in pairs/groups/individually to make patterns using squares, rectangles and triangles.  • Learners in pairs/groups to identify properties of a square practically.  • Learners in pairs/groups to identify properties of a  rectangle practically.  • Learners in pairs/groups to identify properties of a  triangle practically.  • Learners in pairs/groups to use IT devices to learn  more about 2-D shapes and make patterns. | Cut-outs of rectangles, squares, triangles and circles of different sizes  Klb visionary mathematics Grd. 4 learners bk pg. 154 | Oral questions  Written exercise  Observation |  |
|  | **3** | **DATA HANDLING** | **Collecting and organizing data** | By the end of the lesson the learner should be able to   1. collect data 2. use IT devices to collect and organize data 3. appreciate use of frequency tables in representing data in real life situations. | How do you collect and organize data? | • Learners in groups to collect and record data involving real life situations using tally marks.  • Learners in pairs/groups/  individually to represent data  collected from real life situations  using frequency tables. | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 155 | Oral questions  Written exercise  Observation |  |
|  | **4** |  | **Collecting and organizing data** | By the end of the lesson the learner should be able to   1. organize data 2. use IT devices to collect and organize data 3. appreciate use of frequency tables in representing data in real life situations. | How do you collect and organize data? | • Learners in groups to collect and record data involving real life situations using tally marks.  • Learners in pairs/groups/  individually to represent data  collected from real life situations  using frequency tables. | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 155 | Oral questions  Written exercise  Observation |  |
|  | **5** |  | **Representing Data using Tally Marks** | By the end of the lesson the learner should be able to   1. represent data using tally marks 2. use IT devices to represent data 3. appreciate use of frequency tables in representing data in real life situations. | How do you represent data? | • Learners in  pairs/groups/individually to  work out questions involving  frequency tables representing  real life situations.  • Learners in pairs/ groups to  discuss where frequency tables  are used.  • Learners in  pairs/groups/individually to use  IT devices and learn more on  data collection | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 156-157 | Oral questions  Written exercise  Observation |  |
| **4** | **1** |  | **Representing Data using Tally Marks** | By the end of the lesson the learner should be able to   1. represent data using tally marks 2. use IT devices to represent data 3. appreciate use of frequency tables in representing data in real life situations | How do you represent data? | • Learners in  pairs/groups/individually to  work out questions involving  frequency tables representing  real life situations.  • Learners in pairs/ groups to  discuss where frequency tables  are used.  • Learners in  pairs/groups/individually to use  IT devices and learn more on  data collection | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 156-157 | Oral questions  Written exercise  Observation |  |
|  | **2** |  | **Representing data using frequency tables** | By the end of the lesson the learner should be able to   1. data involving real life situations using frequency tables 2. use IT devices to represent data 3. appreciate use of frequency tables in representing data in real life situations | How do you represent data? | • Learners in  pairs/groups/individually to  work out questions involving  frequency tables representing  real life situations.  • Learners in pairs/ groups to  discuss where frequency tables  are used.  • Learners in  pairs/groups/individually to use  IT devices and learn more on  data collection | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 159-160 | Oral questions  Written exercise  Observation |  |
|  | **3** |  | **Representing data using frequency tables** | By the end of the lesson the learner should be able to   1. data involving real life situations using frequency tables 2. use IT devices to represent data 3. appreciate use of frequency tables in representing data in real life situations | How do you represent data? | • Learners in  pairs/groups/individually to  work out questions involving  frequency tables representing  real life situations.  • Learners in pairs/ groups to  discuss where frequency tables  are used.  • Learners in  pairs/groups/individually to use  IT devices and learn more on  data collection | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 159-160 | Oral questions  Written exercise  Observation |  |
|  | **4** |  | **Interpreting frequency tables** | By the end of the lesson the learner should be able to   1. identify where frequency tables are used 2. work out questions involving frequency table in real life situations 3. appreciate use of frequency tables in representing data in real life situations | How do you interpret frequency tables?  Where can you use frequency tables? | • Learners in pairs/ groups/individually to interpret  frequency tables representing  real life situations. | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 161-164 | Oral questions  Written exercise  Observation |  |
|  | **5** |  | **Interpreting frequency tables** | By the end of the lesson the learner should be able to   1. identify where frequency tables are used 2. work out questions involving frequency table in real life situations 3. appreciate use of frequency tables in representing data in real life situations | How do you interpret frequency tables?  Where can you use frequency tables? | • Learners in pairs/ groups/individually to interpret  frequency tables representing  real life situations. | Chart showing collected data  Klb visionary mathematics Grd. 4 learners bk pg. 161-164 | Oral questions  Written exercise  Observation |  |
| **5** | **1** | **ALGEBRA** | **Using letters to represent numbers** | By the end of the lesson the learner should be able to   1. represent unknown using letters 2. use IT devices for learning and enjoyment, 3. appreciate the use of algebraic expressions | How can you represent unknown quantity? | • Learners in  pairs/groups/individually to  represent the unknown in real  life situations using letters.  • Learners in  pairs/groups/individually to form  algebraic expressions to  represent real life situations.  • Learners in  pairs/groups/individuals to  simplify algebraic expressions  representing real life situations.  • Learners in  pairs/groups/individually to play  digital games involving algebraic expressions. | Baskets, real items, charts  Klb visionary mathematics Grd. 4 learners bk pg. 165 | Oral questions  Written exercise  Observation |  |
|  | **2** |  | **Forming algebraic expressions involving addition** | By the end of the lesson the learner should be able to   1. form algebraic expressions involving addition in real life situation 2. use IT devices to form algebraic equations 3. appreciate the use of algebraic expressions | How can you form algebraic expressions involving addition? | • Learners in  pairs/groups/individually to  represent the unknown in real  life situations using letters.  • Learners in  pairs/groups/individually to form  algebraic expressions to  represent real life situations.  • Learners in  pairs/groups/individuals to  simplify algebraic expressions  representing real life situations.  • Learners in  pairs/groups/individually to play  digital games involving algebraic expressions. | Baskets, real items, charts  Klb visionary mathematics Grd. 4 learners bk pg. 165-166 | Oral questions  Written exercise  Observation |  |
|  | **3** |  | **Forming algebraic expressions involving subtraction** | By the end of the lesson the learner should be able to   1. form algebraic expression involving subtraction in real life situation 2. use IT devices to form algebraic equations 3. appreciate the use of algebraic expressions | How can you form algebraic expressions involving subtraction? | • Learners in  pairs/groups/individually to  represent the unknown in real  life situations using letters.  • Learners in  pairs/groups/individually to form  algebraic expressions to  represent real life situations.  • Learners in  pairs/groups/individuals to  simplify algebraic expressions  representing real life situations.  • Learners in  pairs/groups/individually to play  digital games involving algebraic expressions. | Baskets, real items, charts  Klb visionary mathematics Grd. 4 learners bk pg. 167 | Oral questions  Written exercise  Observation |  |
|  | **4** |  | **Forming algebraic expressions involving multiplication** | By the end of the lesson the learner should be able to   1. form algebraic expression involving subtraction in real life situation 2. use IT devices to form algebraic equations 3. appreciate the use of algebraic expressions | How can you form algebraic expressions involving multiplication? | • Learners in  pairs/groups/individually to  represent the unknown in real  life situations using letters.  • Learners in  pairs/groups/individually to form  algebraic expressions to  represent real life situations.  • Learners in  pairs/groups/individuals to  simplify algebraic expressions  representing real life situations.  • Learners in  pairs/groups/individually to play  digital games involving algebraic expressions. | Baskets, real items, charts  Klb visionary mathematics Grd. 4 learners bk pg. 167-168 | Oral questions  Written exercise  Observation |  |
|  | **5** |  | **Forming algebraic expressions involving division** | By the end of the lesson the learner should be able to   1. form algebraic expression involving subtraction in real life situation 2. use IT devices to form algebraic equations 3. appreciate the use of algebraic expressions | How can you form algebraic expressions involving division? | • Learners in  pairs/groups/individually to  represent the unknown in real  life situations using letters.  • Learners in  pairs/groups/individually to form  algebraic expressions to  represent real life situations.  • Learners in  pairs/groups/individuals to  simplify algebraic expressions  representing real life situations.  • Learners in  pairs/groups/individually to play  digital games involving algebraic expressions. | Baskets, real items, charts  Klb visionary mathematics Grd. 4 learners bk pg. 168 | Oral questions  Written exercise  Observation |  |
| **6** | **1** |  | **Simplifying algebraic expressions** | By the end of the lesson the learner should be able to   1. simplify algebraic expressions 2. use IT devices to simplify algebraic expressions 3. appreciate the use of algebraic expressions | How can you simplify algebraic expressions? | • Learners in  pairs/groups/individually to  represent the unknown in real  life situations using letters.  • Learners in  pairs/groups/individually to form  algebraic expressions to  represent real life situations.  • Learners in  pairs/groups/individuals to  simplify algebraic expressions  representing real life situations.  • Learners in  pairs/groups/individually to play  digital games involving algebraic expressions. | Charts with worked examples, practice cards  Klb visionary mathematics Grd. 4 learners bk pg. 169 | Oral questions  Written exercise  Observation |  |
| **7-8** |  | **END TERM ASSESMENT/CLOSING** | | | | | | | |