SCHEME OF WORK MATHEMATICS FORM 3 2022

TERM II ENDARASHA BOYS

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| **WK** | **LSN** | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **T/L ACTIVITIES** | **T/L AIDS** | **REFERENCE** | **REMARKS** |
| **2** | 1 | Further Logarithms | Further computation using logarithms Further computation using logarithms | By the end of the lesson, the learner should be able to:Solve problems involving logarithms | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 95-96 |  |
| 2 | Further Logarithms | Further computation using logarithms | By the end of the lesson, the learner should be able to:Solve problems involving logarithms | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 95-96 |  |
| 3 | Further Logarithms | Problem solving | By the end of the lesson, the learner should be able to:Solve problems involving logarithms | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 97 |  |
| 4 | Further Logarithms Commercial arithmetic | Problem solving Simple interest | By the end of the lesson, the learner should be able to:Solve problems involving logarithms Calculate simple interest | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 97 |  |
| 5 | Commercial arithmetic | Compound interest | By the end of the lesson, the learner should be able to:Calculate the compound interest | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 102-106 |  |
| 6 | Commercial arithmetic | Appreciation | By the end of the lesson, the learner should be able to:Calculate the appreciation value of items | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 108 |  |
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|  | 7 | Commercial arithmetic | Depreciation Hire purchase | By the end of the lesson, the learner should be able to:Calculate the depreciation value of itemsFind the hire purchase | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 109 |  |
| 8 | Commercial arithmetic | Income tax | By the end of the lesson, the learner should be able to:Calculate the income tax | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 112-114 |  |
| **3** | 1 | Commercial arithmetic | P.A.Y.E | By the end of the lesson, the learner should be able to:Calculate the p.a.y.e | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 114-117 |  |
| 2 | Circles: Chords and tangents | Length of an arcChords | By the end of the lesson, the learner should be able to:Calculate the length of an arcCalculate the length of a chord | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 124-125 |  |
| 3 | Circles: Chords and tangents | Parallel chords | By the end of the lesson, the learner should be able to:Calculate the perpendicular bisector Find the value of parallel chords | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 129-131 |  |
| 4 | Circles: Chords and tangents | Equal chords | By the end of the lesson, the learner should be able to:Find the length of equal chords | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 131-132 |  |
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|  | 5 | Circles: Chords and tangents | Intersecting chords Intersecting chords | By the end of the lesson, the learner should be able to:Calculate the length of intersecting chords | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 132-135 |  |
| 6 | Circles: Chords and tangents | Tangent to a circle | By the end of the lesson, the learner should be able to:Construct a tangent to a circle | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 139-140 |  |
| 7 | Circles: Chords and tangents | Tangent to a circle Properties of tangents to a circle from an external point | By the end of the lesson, the learner should be able to:Calculate the length of tangentCalculate the angle between tangents State the properties oftangents to a circle from an external point | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 141-142 |  |
| 8 | Circles: Chords and tangents | Tangents to two circles | By the end of the lesson, the learner should be able to:Calculate the tangents of direct common tangents | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 148-149 |  |
| **4** | 1 | Circles: Chords and tangents | Tangents to two circles | By the end of the lesson, the learner should be able to:Calculate the tangents of transverse common tangents | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 150-151 |  |
| 2 | Circles: Chords and tangents | Contact of circles Contact of circles | By the end of the lesson, the learner should be able to:Calculate the radii of contact circles | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 151-153 |  |
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|  | 3 | Circles: Chords and tangents | Problem solving | By the end of the lesson, the learner should be able to:Solve problems involving chords, tangents and contact circles | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 154-157 |  |
| 4 | Circles: Chords and tangents | Angle in alternate segment | By the end of the lesson, the learner should be able to:Calculate the angles in alternate segments | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 157-160 |  |
| 5 | Circles: Chords and tangents | Angle in alternate segment Circumscribed circle | By the end of the lesson, the learner should be able to:Calculate the angles in alternate segments Construct circumscribed circles | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 160-161 |  |
| 6 | Circles: Chords and tangents | Escribed circles | By the end of the lesson, the learner should be able to:Construct escribed circles | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 165-166 |  |
| 7 | Circles: Chords and tangents | Centroid | By the end of the lesson, the learner should be able to:Construct centroid | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 166 |  |
| 8 | Circles: Chords and tangents Matrices | Orthocenter Matrix representation and order of matrix | By the end of the lesson, the learner should be able to:Construct orthocenter Represent matrix State the order of a matrix | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 167 |  |
| **5** | MID TERM EXAMS AND BREAK |

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| **6** | 1 | Matrices | Addition of matrix | By the end of the lesson, the learner should be able to:Add matrices | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 170 |  |
| 2 | Matrices | Subtraction of matrices | By the end of the lesson, the learner should be able to:Subtract matrices | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 171 |  |
| 3 | Matrices | Combined addition and subtraction of matrices Matrix multiplication | By the end of the lesson, the learner should be able to:Perform the combined operation on matrices Multiply matrices | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 171-174 |  |
| 4 | Matrices | Matrix multiplication | By the end of the lesson, the learner should be able to:Multiply matrices | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 176-179 |  |
| 5 | Matrices | Identity matrix Determinant of a 2 | By the end of the lesson, the learner should be able to:Find the identity matrix Find the determinant of a 2 | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 182-183 |  |
| 6 | Matrices | Inverse of a 2 | By the end of the lesson, the learner should be able to:Calculate the inverse of a 2 | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 183-185 |  |
| 7 | Matrices | Inverse of a 2 | By the end of the lesson, the learner should be able to:Calculate the inverse of a 2 | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 186-187 |  |
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|  | 8 | Matrices | Solutions of simultaneous equations by matrix method Solutions of simultaneous equations by matrix method | By the end of the lesson, the learner should be able to:Solve simultaneous equations by matrix method | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 188-190 |  |
| **7** | 1 | Matrices | Problem solving | By the end of the lesson, the learner should be able to:Calculate the inverse of a matrixSolve simultaneous equations by matrix method | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 190 |  |
| 2 | Formulae and variations | Formulae | By the end of the lesson, the learner should be able to:Make subject of the given formula | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 191-193 |  |
| 3 | Formulae and variations | Direct variation Inverse variation | By the end of the lesson, the learner should be able to:Solve problems involving direct variations Solve problemsinvolving inverse variations | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 194-196 |  |
| 4 | Formulae and variations | Partial variation | By the end of the lesson, the learner should be able to:Solve problems involving partial variations | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 201-203 |  |
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|  | 5 | Formulae and variations | Joint variation | By the end of the lesson, the learner should be able to:Solve problems involving join variations | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 204-205 |  |
| 6 | Formulae and variations Sequences and series | Joint variation Sequences | By the end of the lesson, the learner should be able to:Solve problems involving join variations Find the next terms | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 206 |  |
| 7 | Sequences and series | Arithmetic sequences | By the end of the lesson, the learner should be able to:Find the nth term of a given arithmetic sequence | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 209-210 |  |
| 8 | Sequences and series | Geometric sequence | By the end of the lesson, the learner should be able to:Find the nth term of a given geometric sequence | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 211-213 |  |
| **8** | 1 | Sequences and series | Arithmetic series Geometric series | By the end of the lesson, the learner should be able to:Find the nth term of a given arithmetic series Find the nth term of a given geometric series | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 214-215 |  |
| 2 | Sequences and series | Geometric series | By the end of the lesson, the learner should be able to:Find the nth term of a given geometric series | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 216-219 |  |
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|  | 3 | Vectors II | Coordinates in two dimensions Coordinates in three dimensions | By the end of the lesson, the learner should be able to:Identify the coordinates of appoint in two dimensionsIdentify the coordinates of appoint in three dimensions | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 221 |  |
| 4 | Vectors II | Column vectors | By the end of the lesson, the learner should be able to:Find a displacement and represent it in column vector | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 223-224 |  |
| 5 | Vectors II | Position vector | By the end of the lesson, the learner should be able to:Calculate the position vector | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 224 |  |
| 6 | Vectors II | Unit vectors Unit vectors | By the end of the lesson, the learner should be able to:Express vectors in terms of unit vectors | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 226-228 |  |
| 7 | Vectors II | Magnitude of a vector in three dimensions | By the end of the lesson, the learner should be able to:Calculate the magnitude of a vector in three dimensions | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 229-230 |  |
| 8 | Vectors II | Parallel vectors | By the end of the lesson, the learner should be able to:Identify parallel vectors | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 231-232 |  |
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| **9** | 1 | Vectors II | Collinear points Collinear points | By the end of the lesson, the learner should be able to:Show that points are collinear | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 232 |  |
| 2 | Vectors II | Proportion division of a line | By the end of the lesson, the learner should be able to:Divide a line internally in the given ratio | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 237-238 |  |
| 3 | Vectors II | Proportion division of a line | By the end of the lesson, the learner should be able to:Divide a line externally in the given ratio | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 238 |  |
| 4 | Vectors II | Proportion division of a lineRatio theorem | By the end of the lesson, the learner should be able to:Divide a line internally and externally in the given ratioExpress position vectors | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 239 |  |
| 5 | Vectors II | Ratio theorem | By the end of the lesson, the learner should be able to:Find the position vector | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 242 |  |
| 6 | Vectors II | Mid-point | By the end of the lesson, the learner should be able to:Find the mid-points of the given vectors | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 243 |  |
| 7 | Vectors II | Ratio theorem Ratio theorem | By the end of the lesson, the learner should be able to:Use ratio theorem to find the given vectors | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 244-245 |  |
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|  | 8 | Vectors II | Applications of vectors | By the end of the lesson, the learner should be able to:Use vectors to show the diagonals of a parallelogram | Discussions Solving Demonstrating Explaining | Calculators Protractor RulerPair of compasses | KLB Mathematics Book ThreePg 248-249 |  |
| **10** | END OF TERM BREAK AND SCHOOL CLOSING |