**MATHEMATICS SCHEMES OF WORK**

**STANDARD 8, 2019**

**MATHEMATICS SCHEMES OF WORK STANDARD 8, 2019**

**TERM 1**

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| **WEEK** | **LESSON** | **TOPIC/SUB TOPIC** | **OBJECTIVES** | **T/L ACTIVITIES** | **REFERENCES** | **T/L AIDS** | **REMARK** |
| 1 | **Opening and Revision** |
| 2 | **1 – 7** | NUMBERSPlace values and total values.Square and square roots.LCM, GCD and divisibility test.Fractions | The learner should be able to:Read and write numbers in symbols and in words.Work out squares of numbers and square roots of perfect squares.Convert fractions and percentages into percentages and fractions.Convert decimals to percentages and percentages into decimals.Write the place values and total values of numbers. | Writing total values and place values.Finding square and square roots.Reading and writing numbers in symbols and in words.Converting fractions into percentages and percentages into fractions.Converting decimals into fractions and fractions into decimals.Working out LCM , GCD and divisibility test | Understanding math pg 1 – 14Progressive math pg 1 – 6Learning mathematics pg 5 – 13 | A chart |  |
| 3 | 1 – 7 | OPERATION ON NUMBERS.Operations involving whole numbers.Combining operations.Operation  | Work out problems involving operations of whole numbers.Work out problems involving operations on fractions.Work out problems involving operation in decimals.Work out problems involving combined operation.Work out problems involving percentage increase and | Working out problems on whole numbers.Work out operations on fractionsWork out operations on decimals Working out sums on combined operations.Working out problems on percentage increase. | Understanding mathematics pg 16 – 43Progressive math pg 10 – 13Learning math pg 41 - 46 | A chart |  |
|  |  | Involving: fractions and decimals.Percentage increase and decrease.Number sequence. | Decrease.Work out problems in number sequence | and decrease.Working out problems on number sequence. |  |  |  |
| **4** | **1 – 7** |  **END OF MONTH EXAMS** |
| **5** | 1 – 7 | LENGTH/MEASUREMENTUnits of length AreaSurface areaVolumeCapacityMass | Workout problems involving units of length.Work out problems involving area and surface area.Work out problems involving volume.Working out problems involving units of capacity.Convert units of capacity to units.Work out problems involving mass | Work out problems involving units of lengthWork out problems involving area and surface area.Work out problems involving volume.Work out problems involving units of capacity.Converting units of capacity to units of volume.Working out problems involving mass | Understanding math pg 48 – 78Progressive math pg 36 – 84Learning math pg 54 – 89 | A chart |  |
| **6** | **1 – 7** | MEASUREMENTProfit and lossPercentages profit and lossBillsCommission and percentage commissionsDiscount and percentage discount.Hire purchaseSimple interest | Work out problems involving profit and lossPercentage profit and loss.Work out problems involving bills.Work out problems involving discounts percentage discount, commission and percentage commission.Work out problems involving hire purchase.Work out problems involving simple interest.Work out problems involving compound interest using simple interest per unit time.Work out problems involving postal charges. | Work out profit, loss, percentage profit and loss.Working out problems on bills.Working out problems on discount percentage discount, commission and percentage commission.Working out problems involving hire purchase. Working out simple and compound interest.Working out examples. | Understanding math pg 89 – 121Progressive math pg 94 – 111Learning math pg 91 – 110 | A chart |  |
| **7, 8 & 9** | **1 – 7** | **Revision, mid term exams** |
| 10  | 1 – 7 | TIME SPEED AND TEMPERATURE | The learner should be able to:Work out problems involving time and speed.Work out problems involving distance and average speed.Work out problems involving temperature in degrees siliceous. | Working out problems involving time and speed.Working out examples involving distance and average speed.Temperature and degrees siliceous | Understanding math pg 48 – 54Learning math pg 111 -117 | A chartclock |  |

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| **WEEK** | **LESSON** | **TOPIC/SUB TOPIC** | **OBJECTIVES** | **T/L ACTIVITIES** | **REFERENCES** | **T/L AIDS** | **REMARK** |
| 11And12 | 1 – 71 – 7 | GEOMETRYConstruction of a Pythagorean relationship | construct triangle Construct circles touching the three sides of the triangle.Work out problems using Pythagorean relationship.Construct parallelograms and rhombusesWork out problems involving properties of squares, rectangles, parallelograms, rhombuses and trapeziums.Recognize and identify triangles and square based pyramidsIdentify and make nets of pyramids and prisms.Make geometrical patterns | Constructing triangles.Draw a perpendicular from a point to a line.Constructing a circle.Working out problems involving Pythagorean relationship.Constructing parallelograms and rhombuses.Working out problems involving properties of square, rectangles, parallelograms, rhombuses and trapezium.Identifying triangular and square based pyramidsMaking nets Making geometrical patterns. | Understanding math pg 147 – 183Progressive math pg 56 – 6 8Learning math pg 118 - 138 | A chartCut outs of patternsGeometrical sets |  |
| **13** | **1 – 7** | **Revisions and Preparations for End Term Exams** |
| **14** |  **End Term 1 Exams and Closing** |

**TERM 2**

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| **WEEK** | **LESSON** | **TOPIC** | **SUB TOPIC** | **OBJECTIVES** | **T/L ACTIVITIES** | **T/L AIDS** | **REFERENCE** | **REMARK** |
| **1** | **1 - 7** | **Opening and Revisions** |
| 2 | 1 – 7  | MEASUREMENTLength perimeter and area | Length and circumference | Be able to:Work out problems involving conversions showing units of length.Convert mm to cm and vice versa.Convert dm, Dm, Hm, to Km and vice versa.Work out perimeter of squares, rectangles and triangles.Work out problems involving circumference correctly. | Conversions of units of length.Discussing relationship of units.Working out operations. | WaterContainersRuler. | Primary math pg 88 – 95Understanding math pg 89 - 101 |  |
| 3 | 1 – 7 | MEASUREMENT | Area and surface area. | Be able to:Work out problems involving areas of triangles and quadrilaterals.Work out problems involving area of circles correctly.Work out problems involving area of combined shapes and borders.Work out problems involving area of | Reading and interpreting problems.Finding areas of triangles and quadrilaterals.Calculating the area. | Worked out examples on a chart. | Primary math pg 96 – 107Understanding math pg 102 - 112 |  |
| 4 | 1 - 7 | Revision and end month exams |
| 5 | 1 – 7 | MEASUREMENT | Surface area | Be able to:Work out surface area of cubes.Work out surface area of cuboids.Work out surface area of cylinders.Work out curved surface areas of cylinders | Observing open and closed boxes.Cutting and opening boxes and cylinders. | Boxes Cylinders | Primary math pg 108 – 113Understanding math pg 113 – 120 |  |
| 6 | 1 – 7 | MEASUREMENT | Volume of cubes, cuboids, cylinders and triangular prisms. | Be able to:Work out volume of cuboids.Work out problems involving volumes of cubes.Work out problems involving cylinders and triangular prisms.Work out problems involving capacity.Convert units of capacity to units of volume and vice versa. | Observing cubes and cuboids.Working out volumes.Working out capacity. | CoinsCylindersBoxes. | Primary math pg 114 – 125Understanding math pg 121 – 127 |  |
| 7 | 1 – 7 | Revision and mid term exams |
| 8 | 1 – 7 | MEASUREMENT | Mass Money | Be able to:Work out problems involving mass.Converting different quantities of mass.Work out problems involving percentage profit and loss.Read and design bills.Work out problems involving bills | Comparing mass Working out problems.Involving percentageDesigning bills | Bills Weights. | Primary math pg 128 – 139Understanding math pg 128 - 144 |  |
| 9-13 | Revisions and Preparations for End Term Exam |  |
| 14 | End Term 11 Exams and Closing |  |

**TERM 3**

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| **WEEK** | **LESSON** | **TOPIC** | **SUB TOPIC** | **OBJECTIVES** | **T/L****1 ACTIVITIES** | **T/L RESOURCE** | **T/L AIDS** | **REMARK** |
| **1** | **1 – 7** |  **REVISION OF HOLIDAY HOMEWORK** |
| 2 | 1 – 7 | POSTAL CHARGES | Postal charges.Money orderPostal orders.telegram | Be able to:Work out problems involving postal charges.Recognize and identify money orders and postal charges.Work out problems involving telegrams. | ReadingInterpreting postal charges and international postal charges.Working out problems involving postal charges. | Primary math pg 92 – 99Understanding math pg 101 – 113 | Money orders Letters |  |
| 3 | 1 – 7 | TIME, SPEED AND TEMPERATURE | TimeSpeedDistanceTemperature | Be able to work out distance given speed and time.Time given distance and speed.Average speed given distance and time.Work out problems involving temperature in degrees Celsius | Converting speed from km/h into m/s and vice versa.Reading and interpreting travel tables.Calculations of speed, time and distance. | Primary math pg 171 – 184Understanding math pg 119 - 134 | Clock Thermometers. |  |
| 4 | 1 – 7 | SPEED AND TEMPERATURE | Temperature in degrees Celsius | Be able to :Work out average speed given speed and time.Work out problems involving temperatures in degrees Celsius. | Reading thermometerTell increase or decrease in scale | Primary math pg 184 – 185Understanding math pg 134 - 136 |  |  |
| 5-8 | Revisions, Class work and preparations for End Term Exams |  |
| 9 | End Term 111 Exam and closing |  |