Mathematics schemes of work

Standard Seven Term One

**References**

1. New progressive primary mathematics teacher’s guide book 7
2. New progressive primary mathematics pupil’s book 7
3. Primary mathematics pupil’s book 7
4. Primary mathematics teacher’s guide book 7

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| WEEK | LESSON | TOPIC | SUB-TOPIC | OBJECTIVES |  TEACHER’S ACTIVITIES | LEANER’S ACTIVITIES | LEARNING/ TEACHING RESOURCES | REFERENCES | ASSESSMENT | REMARKS |
| 1 | REPORTNG AND PREPARATION |  |
| 2 | 1 | **NUMBERS**  | Place value  | By the end of the lesson the learner should be able to **identify the place value of a given numbers** | -Grouping - Explanation-Working outdemonstration -Discussion | -Grouping - Explanation-Working out-demonstration -Discussion | -Objects like tins, books, pencils, cups, pictures, etc-place value chart  | PM PB7 Pg2TG 7Pg1NPM PB7 Pg3TG b7Pg2 | WRTTEN EXERCISE |  |
| 2 | **NUMBERS**  | Total value | By the end of the lesson the learner should be able to **identify total value of a given number** | -Grouping objects- arranging -Labelling and matching objects  | -Grouping objects- arranging -Labelling and matching objects according to common features. | place value chart | PM PB7 Pg4TG 7Pg3NPM PB7 Pg6TG b7Pg4 | Filling in blanks spaces |  |
| 3 | **NUMBERS**  | Reading numbers | By the end of the lesson the learner should be able to **read and write numbers in words and in symbols**  | -- Explanation-Working out-demonstration -reading | -- Explanation-Working out-demonstration -reading | place value chart | PM PB7 Pg7TG 7Pg4NPM PB7 Pg8TG b7Pg5 | Written excises  |  |
| 4 | **NUMBERS**  | Writing numbers  | By the end of the lesson the learner should be able to **read and write numbers in words and in symbols**  | -- Explanation-Working out-demonstration -writing  | -- Explanation-Working out-demonstration -writing  | place value chart+ | PM PB7 Pg7TG 7Pg4NPM PB7 Pg8TG b7Pg4 | Filling in blanks spaces |  |
| 5 | **NUMBERS**  | Squares of numbers | By the end of the lesson the learner should be able **to work out squares of numbers**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Rectangles, circles, triangles of different sizes and colours | PM PB7 Pg8TG 7Pg5NPM PB7 Pg8TG b7Pg5 | Written excises  |  |
| 6 | **NUMBERS**  | Square roots of numbers | By the end of the lesson the learner should be able to **workout the square root of numbers**  | - Explanation-Working out-demonstration -Discussion  | - Explanation-Working out-demonstration -Discussion  | Rectangles, circles, triangles of different sizes and colours | PM PB7 Pg8TG 7Pg5NPM PB7 Pg9TG b7Pg6 | Filling in blanks spaces |  |
| 7 | **NUMBERS**  | Square and square root of numbers | By the end of the lesson the learner should be able to **work out square numbers and square root of perfect squares**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Objects like tins, books, bottles, pictures, of different size | PM PB7 Pg8TG 7Pg5NPM PB7 Pg8TG b7Pg5 | Written excises  |  |
| 3 | 1 | **NUMBERS**  | Divisibility test for 11 | By the end of the lesson the learner should be able to **determine numbers divisible by eleven**  | - Explanation-Working out-demonstration -Divide | - Explanation-Working out-demonstration -Divide | Objects like tins, books, bottles, pictures, of different size | PM PB7 Pg7TG 7Pg7NPM PB7 Pg8TG b7Pg5 | Written exercise |  |
| 2 | **NUMBERS**  | Divisibility test  | By the end of the lesson the learner should be able to **work out a problem involving divisibility test of eleven**  | - Explanation-Working out-demonstration -Divide | - Explanation-Working out-demonstration -Divide | Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, leaves, etc. | PM PB7 Pg7TG 7Pg6NPM PB7 Pg8TG b7Pg6 | Matching exercise |  |
| 3 | **Fractions**  | Square of fractions  | By the end of the lesson the learner should be able **to work out square of fraction**  | • Identifying • Matching • Comparing- Explanation | • Identifying • Matching • Comparing- Explanation | Objects that have smooth or rough texture  | PM PB7 Pg10TG 7Pg8NPM PB7 Pg12TG b7Pg 7 |  |  |
| 4 | **Fractions** | Square root of fractions  | By the end of the lesson the learner should be able to **workout square root of a fraction**  | - Explanation-Working out-demonstration -Discussion  | - Explanation-Working out-demonstration -Discussion  | Chart  | PM PB7 Pg11TG 7PgNPM PB7 Pg12TG b7Pg7 | Filling in blanks spaces |  |
| 5 | **Fractions** | Perfect squares  | By the end of the lesson the learner should be able to **work out squawroot of fraction involving perfect squares**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Chart  | PM PB7 Pg11TG 7PgNPM PB7 Pg12TG b7Pg8 | Written excises  |  |
| 6 | **Decimal**s  | Place value | By the end of the lesson the learner should be able to **identify place value of digits in decimals**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | place value chart | PM PB7 Pg12TG 7Pg9NPM PB7 Pg14TG b7Pg11 | Written exercise |  |
| 7 | **Decimal**s | Total value  | By the end of the lesson the learner should be able to **identify total value of digits in decimals** | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | place value chart | PM PB7 Pg12TG 7PgNPM PB7 16Pg14TG b7Pg | Matching exercise |  |
| 4 | 1 | **Decimal**s | Conversion of decimal to fraction | By the end of the lesson the learner should be able to **convert non-recurring decimal to fraction**  | - Explanation-Working out-demonstration -Conversion | - Explanation-Working out-demonstration -Conversion | place value chart | PM PB7 Pg15TG 7PgNPM PB7 Pg18TG b7Pg | Filling in blanks spaces |  |
| 2 | **Decimal**s |  | By the end of the lesson the learner should be able **to convert fraction to decimal** | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | place value chart | PM PB7 Pg17TG 7Pg13NPM PB7 PgTG b7Pg20 | Written excises  |  |
| 3 | **Decimal**s |  | By the end of the lesson the learner should be able **to convert fraction to decimal involving non-recurring and recurring decimals** | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | place value chart | PM PB7 Pg22TG 7PgNPM PB7 Pg32TG b7Pg22 | Written exercise |  |
| 4 | **Decimal**s |  | By the end of the lesson the learner should be able to work out **square of decimals**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | place value chart | PM PB7 Pg25TG 7PgNPM PB7 PgTG b7Pg | Matching exercise |  |
| 5 | **Decimal**s |  | By the end of the lesson the learner should be able to **work out square root of decimals involving perfect squares** | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | place value chart | PM PB7 Pg30TG 7PgNPM PB7 Pg34TG b7Pg | Filling in blanks spaces |  |
| 6 | Percentages  | Conversion  | By the end of the lesson the learner should be able to **convert percentage into fraction** | - Explanation-Conversion-demonstration -Discussion | - Explanation-Conversion-demonstration -Discussion | Conversion chartChalk board layout  | PM PB7 Pg34TG 7Pg27NPM PB7 Pg35TG b7Pg | Written excises  |  |
| 7 | Percentages |  | By the end of the lesson the learner should be able **to convert fraction into percentage.** | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Multiplication table  | PM PB7 Pg37TG 7Pg27NPM PB7 Pg38TG b7Pg | Written exercise |  |
| 5 | 1 | Percentages |  | By the end of this topic, the pupils should be **convert decimal into percentage**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Multiplication table | PM PB7 Pg40TG 7PgNPM PB7 Pg45TG b7Pg | Matching exercise |  |
| 2 | Percentages |  | By the end of this topic, the pupils should be able **to convert percentage into decimals**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Multiplication table | PM PB7 Pg42TG 7Pg32NPM PB7 PgTG b7Pg | Filling in blanks spaces |  |
| 3 | OPERATION  | **Whole numbers****Addition**  | By the end of this topic, the pupils should be able to **add whole numbers by whole numbers correctly**  | - Explanation-Addition-demonstration -Discussion | - Explanation-Addition-demonstration -Discussion | Multiplication table | PM PB7 Pg42TG 7Pg32NPM PB7 Pg46TG b7Pg36 | Written excises  |  |
| 4 | OPERATION | **subtraction** | By the end of this topic, the pupils should be able to **subtract whole numbers by whole numbers correctly** | - Explanation-Subtraction-demonstration -Discussion | - Explanation-Subtraction-demonstration -Discussion | Multiplication table | PM PB7 Pg41TG 7Pg33NPM PB7 Pg47TG b7Pg | Written exercise |  |
| 5 | OPERATION | Multiplication  | By the end of this topic, the pupils should be able to **multiply whole number by whole numbers correctly**  | - Explanation-Multiplication-demonstration -Discussion | - Explanation-Multiplication-demonstration -Discussion | Multiplication table | PM PB7 Pg41TG 7PgNPM PB7 Pg47TG b7Pg36 | Matching exercise |  |
| 6 | OPERATION | Division  | By the end of this topic, the pupils should be able to **divide whole numbers by up to 3-digit numbers** | - Explanation-Division-demonstration -Discussion | - Explanation-Division-demonstration -Discussion | Multiplication table | PM PB7 Pg42TG 7Pg33NPM PB7 Pg48TG b7Pg36 | Filling in blanks spaces |  |
| 7 | OPERATION | Mixed exercise  | By the end of the lesson the learner should be able to do **a revision exercise on the work covered.** | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Multiplication table | PM PB7 Pg42TG 7Pg33NPM PB7 PgTG b7Pg | Written excises  |  |
| 6 | 1 | OPERATION | Combined operation  | By the end of this topic, the pupils should be able to **work out problems involving combined operation in whole numbers**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Multiplication table | PM PB7 Pg43TG 7Pg34NPM PB7 PgTG b7Pg38 | Written exercise |  |
| 2 | OPERATION | Number sequence  | By the end of this topic, the pupils should be able to **recognize and identify number sequence involving whole numbers** | - Explanation-addition-demonstration -Discussion | - Explanation-addition-demonstration -Discussion | Multiplication table | PM PB7 Pg43TG 7Pg33NPM PB7 48Pg48TG b7Pg | Matching exercise |  |
| 3 | Fraction  | Addition  | By the end of this topic, the pupils should be able to **work out addition of fraction by fraction**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Place value table  | PM PB7 Pg32-43TG 7Pg23NPM PB7 PgTG b7Pg22 | Filling in blanks spaces |  |
| 4 | Fraction | Subtraction  | By the end of this topic, the pupils should be able to **work out subtraction of fraction by fraction**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Chalkboard layout | PM PB7 Pg38TG 7PgNPM PB7 Pg36TG b7Pg | Written excises  |  |
| 5 | Fraction | Multiplication  | By the end of this topic, the pupils should be able to **work out multiplication of fraction by fraction**  | - Explanation-Working out-Multiplication-Discussion | - Explanation-Working out-Multiplication-Discussion | Place value table  | PM PB7 Pg37TG 7PgNPM PB7 Pg38TG b7Pg29 | Written exercise |  |
| 6 | Fraction | Division  | By the end of this topic, the pupils should be able to **work out division of fraction by fraction**  | - Explanation-Working out-demonstration -Division | - Explanation-Working out-demonstration -Division | Chalkboard layout | PM PB7 Pg42TG 7PgNPM PB7 Pg42TG b7Pg29 | Matching exercise |  |
| 7 | Fraction | Combined operation  | By the end of this topic, the pupils should be able **to work out combined operation involving fraction** | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Place value table  | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Filling in blanks spaces |  |
| 7 | MID TERM EXAMS |  |
| 8 | MID TERM BREAK |  |
| 9 | 1 | Fraction | Number sequence | By the end of this topic, the pupils should be able to **work out number sequence involving fraction**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Chalkboard layout | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Written exercise |  |
| 2 | Fraction | Revision  | By the end of the lesson the learner should be able to do **a revision exercise on the work covered**. | - Explanation-Working out-demonstration -revision | - Explanation-Working out-demonstration -revision | Place value table  | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Matching exercise |  |
| 3 | Decimals  | Addition  | By the end of the lesson the learner should be able to **work out addition involving decimal and decimals**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Place value table  | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Filling in blanks spaces |  |
| 4 | Decimals | Subtraction  | By the end of the lesson the learner should be able to **work out subtraction involving decimal and decimals** | - Explanation-subtraction-demonstration -Discussion | - Explanation-subtraction-demonstration -Discussion | Chalkboard layout | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Written excises  |  |
| 5 | Decimals | Multiplication  | By the end of the lesson the learner should be able to **work out multiplication involving decimal and decimals**  | - Explanation-multiplication-demonstration -Discussion | - Explanation-multiplication-demonstration -Discussion | Place value table  | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Written exercise |  |
| 6 | Decimals | Division  | By the end of the lesson the learner should be able to **work out division involving decimal and decimals**  | - Explanation-dividing-demonstration -Discussion | - Explanation-dividing-demonstration -Discussion | Chalkboard layout | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Matching exercise |  |
| 7 | Decimals |  | By the end of the lesson the learner should be able to **work out combined operation involving decimal**  | - Explanation-Working out-demonstration -Discussion | - Explanation-Working out-demonstration -Discussion | Place value table  | PM PB7 Pg33TG 7Pg24NPM PB7 Pg34TG b7Pg | Filling in blanks spaces |  |

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| WEEK | LESSON | TOPIC | SUB-TOPIC | OBJECTIVES | LEANING/ TEACHING ACTIVITIES | LEANING/ TEACHING ACTIVITIES | LEARNING/ TEACHING RESOURCES | REFERENCES |  |  |
| 10 | 1 | **Percentage**  | Percentage increase  | By the end of the lesson the learner should be able to **work out problems involving percentage increase** | -Grouping - Explanation-Working out-demonstration -Discussion | -- Explanation-Working out-demonstration -Discussion | -Objects like tins, books, pencils, cups, pictures, etc | PM PB7 Pg37TG 7Pg26NPM PB7 Pg36TG b7Pg37 | Filling in blanks spaces |  |
| 2 | **Percentage** | Percentage decrease | By the end of the lesson the learner should be able to **work out problems involving percentage decrease** | -Grouping objects- arranging -Labelling and  | - Explanation-Working out-demonstration -Discussion | -Objects like tins, -books, pencils, -cups, pictures, etc | PM PB7 Pg38TG 7PgNPM PB7 Pg43TG b7Pg26 | Written excises  |  |
| 3 | Measurements  | Decimetre  | By the end of the lesson the learner should be able to **recognize and identify decimetre (dm) as a unit of measuring length**  | -- Explanation-Working out-demonstration -reading | - Explanation-Working out-Drawing -Discussion -measuring | Coloured Manila cards (squares, triangles, circles), books, beads,  | PM PB7 Pg37TG 7Pg26NPM PB7 PgTG b7Pg | Written exercise |  |
| 4 | Measurements | Decametre  | By the end of the lesson the learner should be able to **recognize and identify decametre (Dm) as a unit of measuring length** | -- Explanation-Working out-demonstration -writing  | -Identifying Explanation-Working out-Drawing -Discussion measuring | Coloured Manila cards (squares, triangles, circles), books, beads,  | PM PB7 Pg43TG 7Pg30NPM PB7 Pg43TG b7Pg45 | Matching exercise |  |
| 5 | Measurements | Hectometre  | By the end of the lesson the learner should be able to **recognize and identify hectometre (hm) as a unit of measuring length** | - Explanation-Working out-demonstration -Discussion | Identifying Explanation-Working out-Drawing -Discussion | Rectangles, circles, triangles of different sizes and colours | PM PB7 PgTG 7PgNPM PB7 PgTG b7Pg | Filling in blanks spaces |  |
| 6 | Measurements | Converting units of measurement  | By the end of the lesson the learner should be able to **convert units of measurement from one to another**  | - Explanation-Working out-demonstration -Discussion  | Explanation-Working out-Drawing -Discussion measurement | Rectangles, circles, triangles of different sizes and colours | PM PB7 Pg37TG 7Pg32NPM PB7 Pg43TG b7Pg | Written excises  |  |
| 7 | Measurements | Perimeter  | By the end of the lesson the learner should be able to **work out perimeter involving circles**  | - Explanation-Working out-demonstration -Discussion | Explanation-Working out-Drawing -Discussion | Objects like tins, books, bottles, pictures, of different size | PM PB7 Pg45TG 7PgNPM PB7 PgTG b7Pg | Written exercise |  |
| 11 | 1 | Measurements | Perimeter of triangle  | By the end of the lesson the learner should be able to **work out perimeter involving triangles**   | - Explanation-Working out-demonstration -Divide | Explanation-Working out-Drawing -Discussion | Objects like tins, books, bottles, pictures, of different size | PM PB7 Pg45TG 7PgNPM PB7 Pg44TG b7Pg | Matching exercise |  |
| 2 | Measurements |  | By the end of the lesson the learner should be able to **work out perimeter involving quadrilateral**  | - Explanation-Working out-demonstration -Divide | • Identifying the texture of an Explanation-Working out-Drawing -Discussion • Matching objects according  | Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, leaves, etc. | PM PB7 Pg47TG 7PgNPM PB7 Pg43TG b7Pg34 | Filling in blanks spaces |  |
| 3 | Measurements |  | By the end of the lesson the learner should be able **to work out problems involving units of length in real life** | • Identifying • Matching • Comparing- Explanation-Working out-demonstration -Discussion | Explanation-Working out-Drawing -Discussion | Objects that have smooth or rough texture like wood, paper, glass, soil, mirror, Leaves, etc. | PM PB7 Pg34TG 7PgNPM PB7 PgTG b7Pg48 |  |  |
| 4 | Measurements | Area  | By the end of the lesson the learner should be able to **workout the area of a circle**   | - Explanation-Working out-demonstration -Discussion  | Explanation-Working out-Drawing -Discussion | Rectangles, circles, triangles of different sizes and colours | PM PB7 Pg48TG 7PgNPM PB7 49Pg47TG b7Pg | Filling in blanks spaces |  |
| 5 |  |  | By the end of the lesson the learner should be able to **work out problems involving area of a circle using the formulae** | - Explanation-Working out-demonstration -Discussion | Explanation-Working out-Drawing -Discussion | Rectangles, circles, triangles  | PM PB7 Pg49TG 7Pg345NPM PB7 Pg54TG b7Pg | Written excises  |  |
| 6 |  | Trapezium  | By the end of the lesson the learner should be able to **calculate the area of the of a trapezium**  | - Explanation-Working out-demonstration -Discussion | Explanation-Working out-Answering -Discussion | Rectangles, circles, triangles  | PM PB7 Pg52TG 7PgNPM PB7 PgTG b7Pg | Written exercise |  |
| 7 |  | Parallelogram  | By the end of the lesson the learner should be able to **calculate the area of parallelograms**  | - Explanation-Working out-demonstration -Discussion | Explanation-Working out-Answering -Discussion | Rectangles, circles, triangles  | PM PB7 Pg56TG 7Pg45NPM PB7 PgTG b7Pg | Matching exercise |  |
| 12 | 1 | Measurements | Area of a border | By the end of the lesson the learner should be able to **work out problems involving area of a border** | - Explanation-Working out-demonstration -Conversion | Explanation-Working out-Answering -Discussion | Rectangles, circles, triangles  | PM PB7 Pg99-110TG 7Pg67-77NPM PB7 Pg107-114TG b7Pg70-75 | Filling in blanks spaces |  |
| 2 | Measurements | Combined shape  | By the end of the lesson the learner should be able to **work out problems involving area combined shape**  | - Explanation-Working out-demonstration -Discussion | Explanation-Working out-Answering -Discussion | Rectangles, circles, triangles  | PM PB7 Pg99-110TG 7Pg67-77NPM PB7 Pg107-114TG b7Pg70-75 |  |  |
| 3 | Measurements | Surface area of cuboids  | By the end of the lesson the learner should be able to **work out problems involving surface area of cuboids**  | - Explanation-Working out-demonstration -Discussion | Explanation-Working out-Answering -Discussion | Rectangles, circles, triangles  | PM PB7 Pg99-110TG 7Pg67-77NPM PB7 Pg107-114TG b7Pg70-75 |  |  |
| 4 | Measurements | Surface area of cylinder | By the end of the lesson the learner should be able to **work out problems involving surface area of cylinders**   | - Explanation-Working out-demonstration -Discussion | Explanation-Working out-Answering -Discussion | Rectangles, circles, triangles  | PM PB7 Pg99-110TG 7Pg67-77NPM PB7 Pg107-114TG b7Pg70-75 |  |  |
| 12 | TERM ONE REVISION EXERCISES |  |
| 13 | END OF TERM ONE EXAMINATIONS |  |