Mathematics schemes of work

Standard Seven Term I

**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 out  demonstration  -Discussion | -Grouping  - Explanation  -Working out  -demonstration  -Discussion | -Objects like tins, books, pencils, cups, pictures, etc  -place value chart | PM PB7 Pg2  TG 7Pg1  NPM PB7 Pg3  TG b7Pg2 | WRTTEN EXERCISE |  |
| 2 |  | 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 Pg4  TG 7Pg3  NPM PB7 Pg6  TG b7Pg4 | Filling in blanks spaces |  |
| 3 |  | 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 Pg7  TG 7Pg4  NPM PB7 Pg8  TG b7Pg5 | Written excises |  |
| 4 |  | 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 Pg7  TG 7Pg4  NPM PB7 Pg8  TG b7Pg4 | Filling in blanks spaces |  |
| 5 |  | 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 Pg8  TG 7Pg5  NPM PB7 Pg8  TG b7Pg5 | Written excises |  |
| 6 |  | 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 Pg8  TG 7Pg5  NPM PB7 Pg9  TG b7Pg6 | Filling in blanks spaces |  |
| 7 |  | 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 Pg8  TG 7Pg5  NPM PB7 Pg8  TG b7Pg5 | Written excises |  |
| 3 | 1 |  | 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 Pg7  TG 7Pg7  NPM PB7 Pg8  TG b7Pg5 | Written exercise |  |
| 2 |  | 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 Pg7  TG 7Pg6  NPM PB7 Pg8  TG 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 Pg10  TG 7Pg8  NPM PB7 Pg12  TG b7Pg 7 |  |  |
| 4 |  | 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 Pg11  TG 7Pg  NPM PB7 Pg12  TG b7Pg7 | Filling in blanks spaces |  |
| 5 |  | 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 Pg11  TG 7Pg  NPM PB7 Pg12  TG 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 Pg12  TG 7Pg9  NPM PB7 Pg14  TG b7Pg11 | Written exercise |  |
| 7 |  | 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 Pg12  TG 7Pg  NPM PB7 16Pg14  TG b7Pg | Matching exercise |  |
| 4 | 1 |  | 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 Pg15  TG 7Pg  NPM PB7 Pg18  TG b7Pg | Filling in blanks spaces |  |
| 2 |  |  | 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 Pg17  TG 7Pg13  NPM PB7 Pg  TG b7Pg20 | Written excises |  |
| 3 |  |  | 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 Pg22  TG 7Pg  NPM PB7 Pg32  TG b7Pg22 | Written exercise |  |
| 4 |  |  | 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 Pg25  TG 7Pg  NPM PB7 Pg  TG b7Pg | Matching exercise |  |
| 5 |  |  | 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 Pg30  TG 7Pg  NPM PB7 Pg34  TG 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 chart  Chalk board layout | PM PB7 Pg34  TG 7Pg27  NPM PB7 Pg35  TG b7Pg | Written excises |  |
| 7 |  |  | 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 Pg37  TG 7Pg27  NPM PB7 Pg38  TG b7Pg | Written exercise |  |
| 5 | 1 |  |  | 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 Pg40  TG 7Pg  NPM PB7 Pg45  TG b7Pg | Matching exercise |  |
| 2 |  |  | 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 Pg42  TG 7Pg32  NPM PB7 Pg  TG 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 Pg42  TG 7Pg32  NPM PB7 Pg46  TG b7Pg36 | Written excises |  |
| 4 |  | **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 Pg41  TG 7Pg33  NPM PB7 Pg47  TG b7Pg | Written exercise |  |
| 5 |  | 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 Pg41  TG 7Pg  NPM PB7 Pg47  TG b7Pg36 | Matching exercise |  |
| 6 |  | 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 Pg42  TG 7Pg33  NPM PB7 Pg48  TG b7Pg36 | Filling in blanks spaces |  |
| 7 |  | 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 Pg42  TG 7Pg33  NPM PB7 Pg  TG b7Pg | Written excises |  |
| 6 | 1 |  | 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 Pg43  TG 7Pg34  NPM PB7 Pg  TG b7Pg38 | Written exercise |  |
| 2 |  | 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 Pg43  TG 7Pg33  NPM PB7 48Pg48  TG 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 Pg32-43  TG 7Pg23  NPM PB7 Pg  TG b7Pg22 | Filling in blanks spaces |  |
| 4 |  | 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 Pg38  TG 7Pg  NPM PB7 Pg36  TG b7Pg | Written excises |  |
| 5 |  | 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 Pg37  TG 7Pg  NPM PB7 Pg38  TG b7Pg29 | Written exercise |  |
| 6 |  | 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 Pg42  TG 7Pg  NPM PB7 Pg42  TG b7Pg29 | Matching exercise |  |
| 7 |  | 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 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Filling in blanks spaces |  |
| 7 | MID TERM EXAMINATIONS | | | | | | | | |  |
| 8 | 1 |  | 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 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Written exercise |  |
| 2 |  | 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 Pg  TG 7Pg  NPM PB7 Pg  TG 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 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Filling in blanks spaces |  |
| 4 |  | 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 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Written excises |  |
| 5 |  | 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 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Written exercise |  |
| 6 |  | 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 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Matching exercise |  |
| 7 |  |  | 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 Pg33  TG 7Pg24  NPM PB7 Pg34  TG 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 |  |  |
| 9  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 Pg37  TG 7Pg26  NPM PB7 Pg36  TG b7Pg37 | Filling in blanks spaces |  |
| 2 |  | 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 Pg38  TG 7Pg  NPM PB7 Pg43  TG 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 Pg37  TG 7Pg26  NPM PB7 Pg  TG b7Pg | Written exercise |  |
| 4 |  | 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 Pg43  TG 7Pg30  NPM PB7 Pg43  TG b7Pg45 | Matching exercise |  |
| 5 |  | 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 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Filling in blanks spaces |  |
| 6 |  | 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 Pg37  TG 7Pg32  NPM PB7 Pg43  TG b7Pg | Written excises |  |
| 7 |  | 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 Pg45  TG 7Pg  NPM PB7 Pg  TG b7Pg | Written exercise |  |
| 11 | 1 |  | 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 Pg45  TG 7Pg  NPM PB7 Pg44  TG b7Pg | Matching exercise |  |
| 2 |  |  | 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 Pg47  TG 7Pg  NPM PB7 Pg43  TG b7Pg34 | Filling in blanks spaces |  |
| 3 |  |  | 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 Pg34  TG 7Pg  NPM PB7 Pg  TG b7Pg48 |  |  |
| 4 |  | 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 Pg48  TG 7Pg  NPM PB7 49Pg47  TG 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 Pg49  TG 7Pg345  NPM PB7 Pg54  TG 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 Pg52  TG 7Pg  NPM PB7 Pg  TG 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 Pg56  TG 7Pg45  NPM PB7 Pg  TG b7Pg | Matching exercise |  |
| 12 | 1 |  | 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 Pg99-110  TG 7Pg67-77  NPM PB7 Pg107-114  TG b7Pg70-75 | Filling in blanks spaces |  |
| 2 |  | 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 Pg99-110  TG 7Pg67-77  NPM PB7 Pg107-114  TG b7Pg70-75 |  |  |
| 3 |  | 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 Pg99-110  TG 7Pg67-77  NPM PB7 Pg107-114  TG b7Pg70-75 |  |  |
| 4 |  | 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 Pg99-110  TG 7Pg67-77  NPM PB7 Pg107-114  TG b7Pg70-75 |  |  |
| 13 | REVISION | | | | | | | | |  |
| 14 | EXAMINATIONS | | | | | | | | |  |

Mathematics schemes of work

Standard Seven Term II

**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 | LESN | TOPIC | SUB-TOPIC | OBJECTIVES | LEANING/ TEACHING ACTIVITIES | LEANING/ TEACHING ACTIVITIES | LEARNING/ TEACHING RESOURCES | REFERENCES | ASSESSMENT | REMARKS |
| 1 | REPORTING AND PREPRATIONS | | | | | | | | |  |
| 2 | 1 | **Volume** | Cross section | By the end of the lesson the learner should be able to **identify the cross-section are of a regular solid** | Explanation  Explanation  -Working out  -Answering  -calculating  - | Explanation  Explanation  -Working out  -Answering  -calculating  - | -Objects like tins, books, pencils, cups, pictures, etc | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 2 |  | Volume of cubes | By the end of the lesson the learner should be able to **work out volume of cubes** | -Working out  Explanation  -  -Answering  -calculating  -measuring ring | -Working out  Explanation  -  -Answering  -calculating  -measuring ring | -Objects like tins, -books, pencils, -cups, pictures, etc | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 3 |  | Volume of cuboids | By the end of the lesson the learner should be able to **work out volume of cuboids** | Explanation  Measuring  Working out | Explanation  Measuring  Working out | Coloured Manila cards  (squares, triangles, circles),  books, beads, | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 4 |  |  | By the end of the lesson the learner should be able to **work out volume of cylinder through pilling** | -Working out | -Working out | Coloured Manila cards  (squares, triangles, circles),  books, beads, | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 5 |  |  | By the end of the lesson the learner should be able to **work out volume of cylinder using the formulae** | Explanation  -Working out  -Answering  -calculating  -measuring | Explanation  -Working out  -Answering  -calculating  -measuring | Rectangles, circles, triangles  of different sizes and  colours | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 6 |  | Capacity | By the end of the lesson the learner should be able to **workout problems involving capacity** **of cubes** | Explanation  -Working out  -Answering  -calculating  -measuring | Explanation  -Working out  -Answering  -calculating  -measuring | Rectangles, circles, triangles  of different sizes and  colours | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 7 |  | Capacity of cuboids | By the end of the lesson the learner should be able to **workout problems involving capacity** **of cuboids** | Identifying sizes of objects.  group objects according to size | Identifying sizes of objects.  group objects according to size | Objects like tins, books, bottles, pictures, of different size | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
|  |
| 3 | 1 |  | Capacity cylinder | By the end of the lesson the learner should be able to **workout problems involving capacity** **of cylinders** | Explanation  -Working out  -Answering  -calculating  -measuring | Explanation  -Working out  -Answering  -calculating  -measuring | Objects like tins, books, bottles, pictures, of different size | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 2 |  | Capacity and volume | By the end of the lesson the learner should be able to **recognize and identify the relationship between capacity and volume** | Explanation  -Working out  -Answering  -calculating  -measuring | Explanation  -Working out  -Answering  -calculating  -measuring | Objects that have smooth or rough texture like wood,  paper, glass, soil, mirror,  leaves, etc. | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 3 | **Mass** | Mass in  Grams | By the end of the lesson the learner should be able to **workout problems involving mass in grams** | • Explanation  -Working out  -Answering  -calculating  -measuring | • Explanation  -Working out  -Answering  -calculating  -measuring | Objects that have smooth or rough texture like wood,  paper, glass, soil, mirror,  Leaves, etc. | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 4 |  | Kilograms | By the end of the lesson the learner should be able to **workout problems involving mass in kilograms** | Explanation  -Working out  -Answering  -calculating  -measuring | Explanation  -Working out  -Answering  -calculating  -measuring | Travel tables | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 5 |  | Tonnes | By the end of the lesson the learner should be able to **workout problems involving mass in tonnes** | Explanation  -Working out  -Answering  -calculating  -measuring | Explanation  -Working out  -Answering  -calculating  -measuring | Travel tables | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 6 | Money | Discount | By the end of the lesson the learner should be able to **workout problems involving discounts** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Travel tables | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 7 |  | Percentage discount | By the end of the lesson the learner should be able to **workout problems involving percentage discount** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Scale | PM PB7 Pg1102-122  TG 7Pg70-80  NPM PB7 100Pg120  TG b7Pg76-79 |  |  |
| 4 | 1 |  | Commission | By the end of the lesson the learner should be able to **workout problems involving commission** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating |  | PM PB7 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg |  |  |
| 2 |  | Percentage commission | By the end of the lesson the learner should be able to **workout problems involving percentage commission** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 3 |  | Simple interest | By the end of the lesson the learner should be able to **workout problems involving simple interest** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 4 |  | Simple interest | By the end of the lesson the learner should be able to **workout problems involving simple interest** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 5 |  | Hire purchase | By the end of the lesson the learner should be able to **workout problems involving hire purchase** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 6 |  | Hire purchase | By the end of the lesson the learner should be able to **workout problems involving hire purchase** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 7 |  | bills | By the end of the lesson the learner should be able to **workout problems involving bills in buying and selling** | Explanation  -Working out  -Answering  -calculating | Explanation  -Working out  -Answering  -calculating | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 5 | 1 |  | Bills | By the end of the lesson the learner should be able to **workout problems involving bills in buying and selling** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table  Bill | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 2 | Postal charges | Inland postal charges | By the end of the lesson the learner should be able to **workout problems involving inland postal charges** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table  Postal order | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 3 |  | International postal charges | By the end of the lesson the learner should be able to **workout problems involving international postal charges** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 4 |  | International postal charges | By the end of the lesson the learner should be able to **workout problems involving international postal charges** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 5 |  | Money order | By the end of the lesson the learner should be able to **workout problems involving money order** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table  Money order | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 6 |  | Postal orders | By the end of the lesson the learner should be able to **workout problems involving postal orders** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 |  |  |
| 7 |  | Telegram | By the end of the lesson the learner should be able to **write a telegram** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Filling in blanks spaces |  |
| 6 | 1 |  | Telegram | By the end of the lesson the learner should be able to **workout problems involving telegrams** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table  telegram | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Written excises |  |
| 2 | Time and speed | Time | By the end of the lesson the learner should be able to **workout problems involving time** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Written exercise |  |
| 3 |  | Air flight | By the end of the lesson the learner should be able to **workout problems involving air flight** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table  Travel tables | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Matching exercise |  |
| 4 |  | Fare tables | By the end of the lesson the learner should be able to **workout problems involving bus fare tables** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table  Travel tables | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Filling in blanks spaces |  |
| 5 |  | Fare tables | By the end of the lesson the learner should be able to **workout problems involving train fare ,time and distance tables** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table  Travel tables | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Filling in blanks spaces |  |
| 6 |  |  | By the end of the lesson the learner should be able to **workout problems involving converting units of speed** | Explanation  -Working out  -Answering  -Discussion  conversion | Explanation  -Working out  -Answering  -Discussion  conversion | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Written excises |  |
| 7 | T | Conversion | By the end of the lesson the learner should be able to **workout problems involving converting units of speed** | Explanation  -Working out  -Answering  -Discussion  conversion | Explanation  -Working out  -Answering  -Discussion  conversion | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Written exercise |  |
| 7 | MID TERM EXAMINATIONS | | | | | | | | |  |
| 8 | 1 | Temperature | Direct comparison | By the end of this topic, the  pupils should be able to **compare temperature using hotter, warmer, colder and same as** | Comparing  -Answering  -Discussion  Demonstration | Comparing  -Answering  -Discussion  Demonstration | Multiplication table  thermometer | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Filling in blanks spaces |  |
| 2 |  |  | By the end of the lesson the learner should be able to do **a revision exercise on the work covered**. | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Filling in blanks spaces |  |
| 3 |  | Degree Celsius (oC) | By the end of the lesson the learner should be able to **recognise and identify degree Celsius as a unit of measuring temperature** | Explanation  -Working out  -Answering  -Discussion  Demonstration | Explanation  -Working out  -Answering  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Written excises |  |
| 4 | **Geometry** | Parallel line | By the end of the lesson the learner should be able to **recognize and identify angles properties of parallel line** | Explanation  -Working out  -Construction  -Discussion  Demonstration | Explanation  -Working out  -Construction  -Discussion  Demonstration | Multiplication table  Wood cutting | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg36-45 | Written exercise |  |
| 5 |  |  | By the end of the lesson the learner should be able to **recognize and identify angles properties of quadrilateral** | Explanation  -Working out  -Construction  -Discussion  Demonstration | Explanation  -Working out  -Construction  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Matching exercise |  |
| 6 |  | Transversal | By the end of the lesson the learner should be able to **work out division involving angle properties of a parallel lines** | Explanation  -Working out  -Construction  -Discussion  Demonstration | Explanation  -Working out  -Construction  -Discussion  Demonstration | Multiplication table  Drawing on a chart | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Filling in blanks spaces |  |
| 7 |  |  | By the end of the lesson the learner should be able to **construct a right angled triangle using a ruler and a pair of compasses** | Explanation  -Working out  -Construction  -Discussion  Demonstration | Explanation  -Working out  -Construction  -Discussion  Demonstration | Multiplication table | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Filling in blanks spaces |  |

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| WEEK | LESSON | TOPIC | SUB-TOPIC | OBJECTIVES | LEANING/ TEACHING ACTIVITIES | LEANING/ TEACHING ACTIVITIES | LEARNING/ TEACHING RESOURCES | REFERENCES | ASSESSMENT | REMARKS |
| 9 | 1 | **Percentage** | Construction of triangle | By the end of the lesson the learner should be able to **construct an isosceles triangle using a ruler and a pair of compasses** | - Explanation  -Working out  -Construction  -Discussion  Demonstration | - Explanation  -Working out  -Construction  -Discussion  Demonstration | -Objects like tins, books, pencils, cups, pictures, etc | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Filling in blanks spaces |  |
| 2 |  | Construction of triangle | By the end of the lesson the learner should be able to **construct a equilateral triangle using a ruler and a pair of compasses** | Explanation  -Working out  -Construction  -Discussion  Demonstration | Explanation  -Working out  -Construction  -Discussion  Demonstration | -Objects like tins, -books, pencils, -cups, pictures, etc | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Written excises |  |
| 3 |  | Circumscribe | By the end of the lesson the learner should be able to **construct a circles passing through vertices using a ruler and a pair of compasses** | -- Explanation  -Working out  -Construction  -Discussion  Demonstration | -- Explanation  -Working out  -Construction  -Discussion  Demonstration | Coloured Manila cards  (squares, triangles, circles),  books, beads, | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Written exercise |  |
| 4 |  | Pythagorean relationship | By the end of the lesson the learner should be able to **recognise and identify Pythagorean relation ship** | - Explanation  -Working out  -solving equation  -Discussion  Demonstration | - Explanation  -Working out  -solving equation  -Discussion  Demonstration | Coloured Manila cards  (squares, triangles, circles),  books, beads, | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Matching exercise |  |
| 5 |  |  | By the end of the lesson the learner should be able to **recognise and identify Pythagorean relation ship** | - Explanation  -Working out  -solving equation  -Discussion  Demonstration | - Explanation  -Working out  -solving equation  -Discussion  Demonstration | Rectangles, circles, triangles  of different sizes and  colours | P PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Filling in blanks spaces |  |
| 6 |  | Model | By the end of the lesson the learner should be able to **make a model of a cube** | Identifying shapes of objects  Matching objects according to  shapes | Identifying shapes of objects  Matching objects according to  shapes | Rectangles, circles, triangles  of different sizes and  colours | PM PB7 Pg46 | Filling in blanks spaces |  |
| 7 |  |  | By the end of the lesson the learner should be able to **make a model of a cuboids** | Identifying sizes of objects.  group objects according to size | Identifying sizes of objects.  group objects according to size | Objects like tins, books, bottles, pictures, of different size | TG 7Pg38 | Filling in blanks spaces  Written excises |  |
|  |
| 10 | 1 |  |  | By the end of the lesson the learner should be able to **make a model of a cylinder** | Identifying sizes of objects.  group objects according to size  Matching objects according to size | Identifying sizes of objects.  group objects according to size  Matching objects according to size | Objects like tins, books, bottles, pictures, of different size | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Written exercise |  |
| 2 |  | Pattern s | By the end of the lesson the learner should be able to **make pattern using rectangles** | • Identifying the texture of an object as rough and smooth  Grouping things  According to texture.  object as rough or smooth  • Matching objects according | • Identifying the texture of an object as rough and smooth  Grouping things  According to texture.  object as rough or smooth  • Matching objects according | Objects that have smooth or rough texture like wood,  paper, glass, soil, mirror,  leaves, etc. | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45Pg  TG b7Pg | Matching exercise |  |
| 3 |  |  | By the end of the lesson the learner should be able to **make pattern using triangles** | • Identifying the texture of an object as rough and smooth  object as rough or smooth | • Identifying  • Matching objects according  texture  • Comparing the texture of objects. | Objects that have smooth or rough texture like wood,  paper, glass, soil, mirror,  Leaves, etc. | PM PB7 Pg46-65  TG 7Pg38-44  NPM PB7 Pg42-67  TG b7Pg 36-45 | Filling in blanks spaces |  |
| 4 | Algebra | Forming | By the end of the lesson the learner should be able to **form a simple algebraic equation** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying |  | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Filling in blanks spaces |  |
| 5 |  |  | By the end of the lesson the learner should be able to **form a simple algebraic equation** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying |  | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Written excises |  |
| 6 |  | Simplifying | By the end of the lesson the learner should be able to **simplify an algebraic equation** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying |  | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Written exercise |  |
| 7 |  |  | By the end of the lesson the learner should be able to **simplify an algebraic equation** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying |  | Pg50-64  TG 7Pg49-50  NPM PB7 Pg42-60  TG b7Pg40-51 | Matching exercise |  |
| 12 | REVISION | | | | | | | | | |
| 13 | EXAMIATIONS | | | | | | | | | |
| 14 | MARKING AND CLOSING THE SCHOOL | | | | | | | | | |

Mathematics schemes of work

Standard Seven Term III

**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 | REPORTING AND PREPARATIONS | | | | | | | | |  |
| 2 | 1 | **Algebra** | Form and Simplifying | By the end of the lesson the learner should be able to form and **simplify an algebraic equation** | -Grouping objects  -Naming objects  - Explanation  -Working out  -solving equation  -simplifying | -Grouping objects  -Naming objects  - Explanation  -Working out  -solving equation  -simplifying | -Objects like tins, books, pencils, cups, pictures, etc | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Filling in blanks spaces |  |
| 2 |  | Substitution | By the end of the lesson the learner should be able to **work out the value of algebraic equation through substitution** | -Grouping objects  - arranging  - Explanation  -Working out  -solving equation  -simplifying | -Grouping objects  - arranging  - Explanation  -Working out  -solving equation  -simplifying | -Objects like tins, -books, pencils, -cups, pictures, etc | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Written excises |  |
| 3 |  | Substitution | By the end of the lesson the learner should be able to **work out the value of algebraic equation through substitution** | - Explanation  -Working out  -solving equation  -simplifying | - Explanation  -Working out  -solving equation  -simplifying | Coloured Manila cards  (squares, triangles, circles),  books, beads, | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Written exercise |  |
| 4 |  | Solving | By the end of the lesson the learner should be able to **form and solve algebraic expression with one unknown** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying | Coloured Manila cards  (squares, triangles, circles),  books, beads, | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Matching exercise |  |
| 5 |  |  | By the end of the lesson the learner should be able to **form and solve algebraic expression with one unknown** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying | Rectangles, circles, triangles  of different sizes and  colours | Pg50-64  TG 7Pg  NPM PB7 Pg42-60  TG b7Pg40-51 | Filling in blanks spaces |  |
| 6 |  | Simplifying in equalities | By the end of the lesson the learner should be able to **simplify inequality with one unknown** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying | Rectangles, circles, triangles  of different sizes and  colours | Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Filling in blanks spaces |  |
| 7 |  |  | By the end of the lesson the learner should be able to **simplify inequality with one unknown** | Explanation  -Working out  -solving equation  -simplifying | Explanation  -Working out  -solving equation  -simplifying | Objects like tins, books, bottles, pictures, of different size | Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Written excises  Written exercise |  |
|  |
| 3 | 1 | **Tables and graphs** | Linear Scale | By the end of the lesson the learner should be able to **determine the appropriate scale for the graphs** | Identifying linear scale  Explanation  -Working out  -representing data  Drawing graph | Identifying linear scale  Explanation  -Working out  -representing data  Drawing graph | Objects like tins, books, bottles, pictures, of different size | Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Matching exercise |  |
| 2 |  |  | By the end of the lesson the learner should be able to **determine the appropriate scale for the graphs** | • Identifying the texture of an object as rough and smooth  Explanation  -Working out  -representing data  Drawing graph | • Identifying the texture of an object as rough and smooth  Explanation  -Working out  -representing data  Drawing graph | Objects that have smooth or rough texture like wood,  paper, glass, soil, mirror,  leaves, etc. | PM PB7 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Filling in blanks spaces |  |
| 3 |  | Interpreting tables | By the end of the lesson the learner should be able **to read and interpret tables in real life situation** | • Explanation  -Working out  -representing data  Drawing graph | • Explanation  -Working out  -representing data  Drawing graph | Objects that have smooth or rough texture like wood,  paper, glass, soil, mirror,  Leaves, etc. | Pg150-164 | Filling in blanks spaces |  |
| 4 |  |  | By the end of the lesson the learner should be able **to read and interpret tables in real life situation** | Explanation  -Working out  -representing data  Drawing graph | Explanation  -Working out  -representing data  Drawing graph |  | TG 7Pg | Written excises |  |
| 5 |  | Bar graph | By the end of the lesson the learner should be able to **represent data on a bar graph** | Explanation  -drawing  Representing data | Explanation  -drawing  Representing data |  | NPM PB7 Pg142-160 | Written exercise |  |
| 6 |  |  | By the end of the lesson the learner should be able to interpreting **data on a graph** | -Discussion  -interpreting data  -drawing | -Discussion  -interpreting data  -drawing |  | TG b7Pg94-96 | Matching exercise |  |
| 7 |  | Pie chart | By the end of the lesson the learner should be able to **represent data on a pie chart** | -Working out  -representing data  Drawing pie chart | -Working out  -representing data  Drawing pie chart |  | Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Filling in blanks spaces |  |
| 4 | 1 |  |  | By the end of the lesson the learner should be able to **interpret data on a pie chart** | -Conversion  -Working out  -representing data  Drawing pie chart | -Conversion  -Working out  -representing data  Drawing pie chart |  | Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Filling in blanks spaces |  |
| 2 |  | Travel graph | By the end of the lesson the learner should be able to **read and interpret data on a travel graph** | Explanation  -Working out  -representing data  Drawing graph | Explanation  -Working out  -representing data  Drawing graph |  | Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Written excises |  |
| 3 |  |  | By the end of the lesson the learner should be able to  **Present data on a travel graph** | - Explanation  -Working out  -representing data  Drawing graph | - Explanation  -Working out  -representing data  Drawing graph |  | PM PB7 Pg  TG 7Pg  NPM PB7 Pg  TG b7Pg | Written exercise |  |
| 4 |  | Line graph | By the end of the lesson the learner should be able to **read and interpret data on a line graph** | - Explanation  -Working out  -representing data  Drawing graph | - Explanation  -Working out  -representing data  Drawing graph |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Matching exercise |  |
| 5 |  |  | By the end of the lesson the learner should be able to  **Present data on a line graph** | -Explanation  -demonstration  -Discussion  -Working out | -Explanation  -demonstration  -Discussion  -Working out |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Filling in blanks spaces |  |
| 6 |  | Arithmetic mean | By the end of the lesson the learner should be able to **work out problems involving arithmetic mean** | Explanation  -demonstration  -Discussion  -Working out | Explanation  -demonstration  -Discussion  -Working out |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Filling in blanks spaces |  |
| 7 |  | The mode | By the end of the lesson the learner should be able to **work out problems involving arithmetic mode** | -Explanation  -demonstration  -Discussion  -Working out  -Conversion | -Explanation  -demonstration  -Discussion  -Working out  -Conversion |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Written excises |  |
| 5 | 1 |  |  | By the end of the lesson the learner should be able to **work out problems involving arithmetic mean and mode in real life situation** | Explanation  -Discussion  -Working out  -Conversion  -Observation | Explanation  -Discussion  -Working out  -Conversion  -Observation |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Written exercise |  |
| 2 | **Scale drawing** | Linear scale in ratio form | By the end of this topic, the  pupils should be able **to read and write linear scale in ratio form** | -Explanation  -Discussion  -drawing  -Working out  -Conversion | -Explanation  -Discussion  -drawing  -Working out  -Conversion |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Matching exercise |  |
| 3 |  | Conversion | By the end of this topic, the  pupils should be able to **convert linier scale from statement to ratio form** | Explanation  -Discussion  -Demonstration  -Working out  -Conversion | Explanation  -Discussion  -Demonstration  -Working out  -Conversion |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Filling in blanks spaces |  |
| 4 |  |  | By the end of this topic, the  pupils should be able to **convert linier scale from ratio form to statement** | -Explanation  -Discussion  -Demonstration  -Working out  -Conversion | -Explanation  -Discussion  -Demonstration  -Working out  -Conversion |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Filling in blanks spaces |  |
| 5 |  |  | By the end of this topic, the  pupils should be able to **convert linier scale from statement to ratio form and vice versa** | Explanation  -Discussion  -Working out  -Conversion | Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg150-164  TG 7Pg  NPM PB7 Pg142-160  TG b7Pg94-96 | Written excises |  |
| 6 |  | Making scale drawing | By the end of this topic, the  pupils should be able to **make a scale drawing** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg162  TG 7Pg  NPM PB7 Pg142  TG b7Pg | Written exercise |  |
| 7 |  |  | **.** By the end of this topic, the  pupils should be able to **work out problems involving scale drawing** | Explanation  -Discussion  -Working out  -Conversion  -Observation | Explanation  -Discussion  -Working out  -Conversion  -Observation |  | PM PB7 Pg143  TG 7Pg97  NPM PB7 Pg143  TG b7Pg95 | Matching exercise |  |
| 7 | MID TERM EXAMINATION | | | | | | | | |  |
| 8 | 1 |  | Mixed exercise | By the end of the lesson the learner should be able to do **a revision exercise on the work covered** | Explanation  -Discussion  -Working out  -answering | Explanation  -Discussion  -Working out  -answering |  | PM PB7 Pg162  TG 7Pg  NPM PB7 Pg162  TG b7Pg97 |  |  |
| 2 | **Ratio and proportion** | Ratio as a fraction | By the end of this topic, the  pupils should be able to **recognize and identify ratio as a fraction** | Explanation  -Discussion  -Working out  -Conversion | Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg163  TG 7Pg98  NPM PB7 Pg161  TG b7Pg99 |  |  |
| 3 | Fraction | Ratio sharing | By the end of this topic, the  pupils should be able to **interpret and use ratio on sharing** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg163  TG 7Pg103  NPM PB7 Pg161  TG b7Pg99 |  |  |
| 4 |  |  | By the end of this topic, the  pupils should be able to **interpret and use ratio on sharing** |  |  |  | PM PB7 Pg164  TG 7Pg  NPM PB7 Pg162  TG b7Pg100 | Filling in blanks spaces |  |
| 5 |  |  | By the end of this topic, the  pupils should be able to **work out problems involving ratio using unitary method** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg  TG 7Pg  NPM PB7 Pg163  TG b7Pg102 | Written excises |  |
| 6 |  | Ratio increase | By the end of this topic, the  pupils should be able to **interpret and use ratio in increase** |  |  |  | PM PB7 Pg163  TG 7Pg  NPM PB7 Pg162  TG b7Pg | Written exercise |  |
| 7 |  |  | By the end of this topic, the  pupils should be able to **interpret and use ratio in increase** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg164  TG 7Pg  NPM PB7 161Pg102  TG b7Pg | Matching exercise |  |
| 9 | 1 |  | Ratio decrease | By the end of this topic, the  pupils should be able to **interpret and use ratio in decrease** |  |  |  | PM PB7 Pg163  TG 7Pg  NPM PB7 Pg163  TG b7Pg103 | Filling in blanks spaces |  |
| 2 |  |  | By the end of this topic, the  pupils should be able to **interpret and use ratio in decrease** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg164  TG 7Pg  NPM PB7 Pg162  TG b7Pg | Filling in blanks spaces |  |
| 3 |  |  | By the end of the lesson the learner should be able to do **a revision exercise on the work covered**. |  |  |  | PM PB7 Pg  TG 7Pg  NPM PB7 Pg163  TG b7Pg104 | Written excises |  |
| 4 |  | Direct proportion | By the end of the lesson the learner should be able to **recognize and identify simple direct proportion** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg  TG 7Pg  NPM PB7 Pg164  TG b7Pg103 |  |  |
| 5 |  |  | By the end of the lesson the learner should be able to **work out problems involving simple direct proportion** |  |  |  | PM PB7 Pg  TG 7Pg  NPM PB7 Pg165  TG b7Pg |  |  |
| 6 |  | Indirect proportion | By the end of the lesson the learner should be able to **recognize and identify indirect proportion** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 168Pg162  TG 7Pg  NPM PB7 Pg106  TG b7Pg105 |  |  |
| 7 |  |  | By the end of the lesson the learner should be able to **work out problems involving simple indirect proportion** | -Explanation  -Discussion  -Working out  -Conversion | -Explanation  -Discussion  -Working out  -Conversion |  | PM PB7 Pg160  TG 7Pg  NPM PB7 160Pg169  TG b7Pg106 |  |  |
| 10 | REVISION | | | | | | | | |  |
| 11 | EXAMINATIONS | | | | | | | | |  |
| 12 | MARKING | | | | | | | | |  |