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 | Pg50-64TG 7PgNPM PB7 Pg42-60TG 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 | Pg50-64TG 7PgNPM PB7 Pg42-60TG 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,  | Pg50-64TG 7PgNPM PB7 Pg42-60TG 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,  | Pg50-64TG 7PgNPM PB7 Pg42-60TG 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 | Pg50-64TG 7PgNPM PB7 Pg42-60TG 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 | Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 | Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 | Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 PgTG 7PgNPM PB7 PgTG 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-drawingRepresenting data | Explanation-drawingRepresenting 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 |  | Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 |  | Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 |  | Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 PgTG 7PgNPM PB7 PgTG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg150-164TG 7PgNPM PB7 Pg142-160TG 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 Pg162TG 7PgNPM PB7 Pg142TG 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 Pg143TG 7Pg97NPM PB7 Pg143TG 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 Pg162TG 7PgNPM PB7 Pg162TG 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 Pg163TG 7Pg98NPM PB7 Pg161TG 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 Pg163TG 7Pg103NPM PB7 Pg161TG b7Pg99 |  |  |
| 4 |  |  | By the end of this topic, the pupils should be able to **interpret and use ratio on sharing**  |  |  |  | PM PB7 Pg164TG 7PgNPM PB7 Pg162TG 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 PgTG 7PgNPM PB7 Pg163TG 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 Pg163TG 7PgNPM PB7 Pg162TG 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 Pg164TG 7PgNPM PB7 161Pg102TG 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 Pg163TG 7PgNPM PB7 Pg163TG 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 Pg164TG 7PgNPM PB7 Pg162TG 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 PgTG 7PgNPM PB7 Pg163TG 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 PgTG 7PgNPM PB7 Pg164TG b7Pg103 |  |  |
| 5 |  |  | By the end of the lesson the learner should be able to **work out problems involving simple direct proportion** |  |  |  | PM PB7 PgTG 7PgNPM PB7 Pg165TG 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 168Pg162TG 7PgNPM PB7 Pg106TG 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 Pg160TG 7PgNPM PB7 160Pg169TG b7Pg106 |  |  |
| 10 | REVISION |  |
| 11 | EXAMINATIONS |  |
| 12 | MARKING |  |