



MINISTRY OF GENERAL EDUCATION

CHINGOLA DISTRICT EDUCATION BOARD

COMMON SCHEMES OF WORK FOR ZONE B

GRADE SEVEN (7) MATHEMATICS SCHEMES OF WORK FOR TERM (2) 2021.

GENERAL - OUTCOMES:

1. Solve Mathematical challenges in everyday life through problem solving.
2. Develop arithmetic skills in mathematics.
3. Enrich learners understanding of mathematical concepts on shapes and diagrams.

WEEK	TOPIC / CONTENT	SPECIFIC - OUTCOMES	METHOD	REFERENCE
1	<u>RATIO AND PROPORTION</u> • Direct proportion • Inverse/indirect proportion.	• Solve problems involving direct proportion • Describe indirect proportion • Solve problems involving indirect proportion.	• Group work • Discussion • Demonstration • Question and answer	• Syllabus page 36 • Excel in Mathematics pps bk. 7 pages 25-31 • Past papers
2	<u>RATIO AND PROPORTION</u> • Graphs in direct and indirect proportion	P.S. • Draw graphs to illustrate quantities in direct and indirect proportion.	• Group work • Demonstration • Discussion • Question and answer • Individualised.	• Syllabus page 36 • Excel in Mathematics pps bk. 7 pages 31-36 • Past papers.
3	<u>SOCIAL AND COMMERCIAL ARITHMETIC</u> • Foreign exchange • Conversion of currencies cost of goods priced in	P.S. • Convert currencies • Calculate the cost of goods priced in foreign currencies.	• Group work • Discussion • Demonstration • Question and answer	• Syllabus page 37 • Excel in Mathematics pps bk. 7 pages 37-43 • Past papers.

	foreign currency.			
4	<u>INTEGERS</u> - Integers - Integers on a number line. - Ordering integers Monthly test 1	P.S. - Understand integers - Illustrate positive and negative numbers using a number line. - Order integers.	- Group work - Discussion - Demonstration	- Syllabus page 37 - Excel in Mathematics pps bk. 7 pages 44 - 48 - Past papers.
5	<u>INTEGERS</u> - Adding integers using a number line. - Subtracting numbers using a number line	P.S. - Add integers using a number line - Subtract integers using a number line	- Discussion - Demonstration - Question and answer	- Syllabus page 37 - Excel in Mathematics pps bk. 7 pages 49-55 - Past papers.
6	<u>INTEGERS</u> - Addition and subtraction of integers without using a number line. - Real life problems involving addition and subtraction of integers	P.S. - Add integers without a number line - Subtract integers without a number line - Relate integers to real life situations (e.g. profit and loss, temperature).	- Expository - Demonstration - Question and answer	- Syllabus page 37. - Excel in Mathematics pps bk. 7 pages 56-59 - Past papers.
7	<u>NUMBER BASES</u> System of numeration (bases ten, eight, five and two)	P.S. - Illustrate base ten numeration system - Describe other number bases.	- Discussion - Group work - Question and answer	- Syllabus page 38 - Excel in Mathematics pps bk 7 pages 60-67. - Past papers.
8	<u>NUMBER BASES</u> Converting numbers	P.S. Convert from base 10 to bases 2, 5	- Group work - Discussion	- Syllabus page 38 - Excel in

	base 10 to other bases. Monthly test 2	and 8	Demonstration	Mathematics pps bk 7 pages 67-71 Past papers.
9	<u>NUMBER BASES</u> Converting numbers from bases 2, 5 and 8 to base 10.	P.S. - Convert from bases 2, 5 and 8 to base 10 - Convert from base 2 to base 5 and vice versa	- Discussion - Group work - Demonstration	- Syllabus page 38 - Excel in Mathematics pps bk. 7 pages 71-81 - Past papers.
10	<u>NUMBER BASES</u> - Addition and subtraction of numbers in base 2 - Addition and subtraction of numbers in base 5.	P.S. Add and subtract in bases 2, 5 and 8	- Discussion - Demonstration - Group work	- Syllabus page 38 - Excel in Mathematics pps bk 7 pages 81-92 - Past papers.
11	<u>NUMBERS AND SEQUENCES</u> - Perfect squares - Cubes	P.S. - Describe perfect squares and cubes - Find squares of whole numbers - Find cubes of whole numbers	- Discussion - Group work - Demonstration	- Syllabus page 38 - Excel in Mathematics. Pps bk. 7 pages 93-98 - Past papers.
12	<u>NUMBERS AND SEQUENCES</u> - Sequences - Generating a series_	P.S. - Generate a sequence in a decreasing and increasing order. - Generate series.	- Group work - Discussion - Demonstration	- Syllabus page 38 - Excel in Mathematics pps bk 7 pages 98-103 - Past papers.

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REVISION AND MOCK EXAMINATION